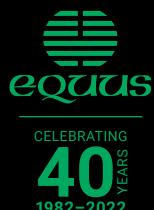


EQUUS SOPREMA NOVATHERM WARM ROOF SYSTEM

Standard Building Consent Package







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With proven durability in the NZ market, EQUUS SOPREMA NOVA-SK provides a robust, watertight system for any flat roof or deck design. NOVA-SK is a highly sought-after solution in the market, as it provides a completely self-adhered, two-layer bitumen waterproofing membrane. The completely flameless installation makes it a perfect solution where a two-layer membrane is preferred but torch-on application is not desired, such as roof retrofits; or of course new builds with a plywood roof.

With the inclusion of a vapour barrier and thermal insulation board, the NOVA-SK membrane creates a NOVATHERM warm roof. An efficient way of increasing the thermal resistance of a building. NOVA-SK and NOVATHERM warm roofs provide the building owner with a cost-effective solution, in an attractive natural grey slate finish.



EQUUS SOPREMA NOVA-SK SELF-ADHERED MEMBRANE SYSTEM

The NOVA-SK self-adhered membrane system consists of a NOVA-SK Mineral 4mm cap sheet self-adhered to a 3mm self-adhesive (SBS) base sheet, to form a two layer waterproofing membrane system suitable for flat roof waterproofing with a completely flameless installation.

NOVA-SK Mineral membrane is a self-adhesvie modified bitumen (SBS) membrane reinforced with non-woven polyester and fibreglass reinforcement. The upper layer is coated with coloured slates to provide an aesthetically pleasing finish, suitable for roof waterproofing where a flameless application is required.

Compatible with plywood or concrete substrates to form a standard cold roof system or over thermal insulation board to provide a NOVATHERM warm roof system.

System Components:

- NOVA-SK MINERAL membrane
- NOVA-SK membrane
- · Equus Peel & Stick Primer

Key Benefits:

- CodeMark Certified
- BRANZ Appraised
- · Economical choice
- Two-layer system
- Flameless self-adhesive application
- Proven UV resistance
- Proven resistance against weather, low & high temperatures and atmospheric conditions
- · Excellent durability and easy maintenance
- Life expectancy of at least 20 years in NZ climate
- Compatible with Equus accessories such as SOPRASOLAR solar panel supports, and FIXPLUS pedestals or KRAITEC STEP tiles for decks.
- · 20-year material warranty available



Available Colour:

Dark Grey





CMNZ70151





EQUUS SOPREMA NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES





EQUUS SOPREMA NOVATHERM SELF-ADHERED WARM ROOF SYSTEM

The NOVATHERM self-adhered warm roof system consists of the NOVA-SK two-layer membrane system applied over a thermal insulation board and vapour barrier, providing a light-weight, thermally insulated roofing system. A warm roof provides condensation control within the building, less need for mechanical venting, and energy cost savings throughout the buildings life due to the guaranteed continuous and efficient thermal resistance (R-value) as per the New Zealand Building Code.

NOVATHERM offers a completely flameless installation, and a project specific roof design with condensation risk analysis and wind uplift calculations according to the buildings location and requirements, making is an optimal solution for waterproofing flat roofs, podium decks, balconies and terraces.

Compatible with plywood, concrete and metal substrates.

Available Colour:

Dark Grey



System Components:

- NOVA-SK MINERAL membrane
- NOVA-SK membrane
- PermabaseDek roof board (optional)
- PIR or MINERAL WOOL thermal insulation
- SELF-ADHESIVE VAPOUR BARRIER
- Equus Peel & Stick Primer

Key Benefits:

- CodeMark Certified
- BRANZ Appraised
- · Economical choice
- Two-layer system
- · Flameless self-adhesive application
- · Proven UV resistance
- Proven resistance against weather, low & high temperatures and atmospheric conditions
- Excellent durability and easy maintenance
- Life expectancy of at least 20 years in NZ climate
- Guaranteed thermal resistance
- Compatible with Equus accessories such as SOPRASOLAR solar panel supports, and FIXPLUS pedestals or KRAITEC STEP tiles for decks.
- 20-year material warranty available





EQUUS SOPREMA Technical Support:

- Project specific specifications and details
- Condensation risk analysis for warm roof systems
- Wind uplift study for warm roof systems
- On-site quality assurance
- Nationwide network of Certified Applicators
- · Warranties available





4421EN EQUUS NOVA-SK FLAMELESS ROOF & DECK MEMBRANE BY SOPREMA

1 GENERAL

This section relates to the supply and installation of Equus Industries Limited SOPREMA NOVA-SK system, a two-layer modified bitumen waterproofing membrane for cold roofs and Equus SOPREMA NOVATHERM system for warm roofs, without the use of a naked flame.

It includes:

- Self-adhesive waterproofing membranes
- All required components and accessories to complete installation

1.1 RELATED WORK

Refer to ~ for ~

1.2 ABBREVIATIONS AND DEFINITIONS

Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

PIR Polyisocyanurate

SBS Styrene-Butadiene-Styrene

The following definitions apply specifically to this section:

Cold roof Roof assembly where insulation is below the roof deck, in the

ceiling cavity or between the joists

Warm roof Roof assembly where rigid insulation is above the roof deck with a

waterproofing membrane over the insulation

Documents

1.3 DOCUMENTS

EN 13970

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1 Durability

NZBC E2/AS1 External moisture

NZS 1170.2:2011 Structural design actions - Wind actions

AS 1562.1-1992 Design and installation of sheet roof and wall cladding - Metal

NZS 3114 Specification for concrete finishes

NZS 3604 Timber-framed buildings

AS/NZS 4859.1 Thermal insulation materials for buildings - General criteria and

technical provisions

EN 13707 Flexible sheets for waterproofing - Reinforced bitumen sheets for

roof waterproofing - Definitions and characteristics

EN 13859-1 Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing

Flexible sheets for waterproofing - Bitumen water vapour control

layers - Definitions and characteristics

HB 39-1997 Installation code for metal roof and wall cladding

WMAI CoP Waterproofing Membrane Association New Zealand - Reinforced

Modified Bitumen Membrane (RMBM) Systems for Roofs and

Decks Code of Practice

CodeMark CMNZ70151 Soprema NZ Ltd Waterproofing Membrane Systems

1.4 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer and supplier documents relating to this part of the work:

SOPREMA Roofer's Guide Bituminous Membranes 2021

Equus SOPREMA Product Technical Data Sheets and Safety Data Sheets

Equus SOPREMA NOVA-SK and NOVATHERM standard details

Equus SOPREMA Quality Assurance (QA) Checklist





BRANZ Appraisal No.520 - Nova SK, Novaflex and Polibit roof and deck waterproofing membranes BRANZ Appraisal No.1169 - Equus Soprema Warm Roof System

Manufacturer/supplier contact details

Company: Equus Industries Limited

Web: www.equus.nz Email: info@equus.nz

Telephone: Northern Branch, Auckland: 09 415 4314

Central Branch, Wellington: 04 576 0333 Southern Branch, Christchurch: 03 353 2434

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:

20 years For Equus SOPREMA NOVA-SK & NOVATHERM membrane

systems

- Provide this warranty on the manufacturer/supplier standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.6 WARRANTY - INSTALLER/APPLICATOR

Provide an installer/applicator warranty:

10 years For installation of Equus SOPREMA NOVA-SK & NOVATHERM

membrane systems

- Provide this warranty on the installer/applicator standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.7 QUALIFICATIONS WORKERS - MANUFACTURER / SUPPLIER REQUIREMENTS

Work to be carried out by certified applicators approved by Equus Industries Ltd. Refer to 1270 CONSTRUCTION for additional requirements relating to qualifications.

1.8 NO SUBSTITUTIONS

Substitutions are not permitted to any of the specified Equus SOPREMA systems or associated components and products unless approved by Equus.

1.9 PRE-INSTALLATION MEETING

Convene a meeting between the applicator, contractor, all associated consultants and Equus Industries Ltd where appropriate to ensure all parties know what is required for effective performance of the system.

1.10 SPECIAL DETAILS

Where a standard Equus SOPREMA NOVA-SK detail does not exist, or if a standard detail cannot be applied, an approved alternative must be obtained from Equus Industries Ltd before proceeding with the installation.

Compliance information

1.11 INFORMATION REQUIRED FOR CODE COMPLIANCE

Provide the following compliance documentation: -

- Applicator approval certificate from the manufacturer / supplier
- Manufacturer / supplier warranty
- Installer / applicator warranty
- Producer Statement Construction from the applicator / installer
- Other information required by the BCA in the Building Consent Approval documents.





Performance

1.12 DURABILITY

Equus SOPREMA NOVA-SK and NOVATHERM insulated roof systems comply with NZBC B2/AS1 when maintained to Equus requirements.

1.13 ENERGY EFFICIENCY

Equus PIR rigid thermal insulation board has an aged thermal resistance (R Value) to AS/NZS 4859.1 of the following:

Thickness:	R-Value
50mm	2.35
60mm	2.85
70mm	3.30
80mm	4.00
90mm	4.50
100mm	4.85
140mm (2 x 70mm	6.60
hoordo)	

boards)

Thermal conductivity 0.021 W/mK for 50mm-70mm thick boards and 0.020 W/mK for 80mm-100mm thick boards.

Performance - Wind

1.14 WIND DESIGN PARAMETERS – NON-SPECIFIC DESIGN

Installation to be in accordance with Equus Industries Limited requirements and as appropriate for the project wind design stated in the general section 1220 PROJECT. Suitable for design wind pressures up to and including Extra High Wind Zone to NZS 3604.

1.15 WIND DESIGN PARAMETERS - SPECIFIC DESIGN

Equus and Soprema provide job-specific wind load calculations to NZS 1170.2 for all specifically designed buildings using Equus Soprema waterproofing systems. Refer to the project wind design stated in the general section 1220 PROJECT

Quality control and assurance

1.16 QUALITY ASSURANCE

The Equus Certified Applicator is responsible for onsite Quality Assurance (QA) following the standard Equus SOPREMA NOVA-SK & NOVATHERM Quality Assurance (QA) Checklists.

1.17 TESTING - FLOOD

Flood test gutters and where practical other low pitch areas with a minimum 50mm depth of water for 24 hours to Equus Industries Limited requirements. Make good any lack of water tightness when the surface is completely dry and repeat water test process after making any necessary repairs.

1.18 TESTING - ELECTRONIC LEAK DETECTION

Carry out leak detection test using selected electronic leak detection system.

Test the waterproof membrane using Electronic Leak Detection procedure upon completion of membrane installation and prior to any covering. Test to be carried out by experienced operator. Make good any lack of water tightness when the surface is completely dry. Depending on conditions, repeat a total or localised test process after making repairs.

2 PRODUCTS

Materials - Waterproofing membranes

2.1 WATERPROOFING BASE SHEET

NOVA-SK 3mm thick self-adhesive bitumen waterproofing membrane modified with elastomeric polymers and reinforced with spun-bonded polyester & fibreglass, manufactured to EN 13707, EN 13859-1 and EN 13970. Upper surface coated with thermofusible polyolefin film or non-woven polypropylene. Anti-adhesive removable film to lower surface. Roll supplied 10m long x 1m wide.

2.2 WATERPROOFING CAP SHEET





NOVA-SK MINERAL 4mm thick self-adhesive bitumen waterproofing membrane modified with thermoplastic elastomeric polymers and reinforced with spun-bonded polyester & fibreglass, manufactured to EN 13707 and EN 13859-1. Upper surface coated with natural grey slate chips. Anti-adhesive removable film to lower surface. Roll supplied 10m long x 1m wide.

Components

2.3 SUBSTRATE PRIMER

Equus Peel and Stick Primer rubber based adhesive solvent solution providing adhesion of Equus self-adhesive waterproofing membranes & vapour barriers to roof substrate.

2.4 VAPOUR BARRIER

SOPRASTICK, SBS modified bitumen self-adhesive membrane with composite polyester reinforcement.

2.5 PIR INSULATION BOARD

EQUUS PIR insulation board with core of closed-cell polyisocyanurate foam faced on both sides with textured aluminium facer, manufactured to AS/NZS 4859.1. Thermal conductivity 0.020 W/mK for 50mm-70mm thick boards and 0.020 W/mL for 80mm-100mm thick boards. Board size 1200mm wide x 2400mm long. Refer to SELECTIONS.

2.6 TAPERED EQUUS PIR INSULATION BOARD

EQUUS tapered PIR insulation board with a core of rigid polyisocyanurate foam faced on both sides by gaslight multi-layered complex are supplied in different gradients to suit specified roof fall.

2.7 POLYURETHANE ADHESIVE

 ${\tt COLTACK\ EVOLUTION\ PU\ FOAM\ single-component,\ solvent\ free,\ moisture\ curing\ polyure than e-based\ adhesive\ foam.}$

2.8 FIXINGS

Equus SOPREMA fixings appropriate for substrate.

2.9 SILVER TAPE

Proprietary 50mm wide silver aluminium foil joining tape for insulation board joints.

2.10 LIQUID DETAILING MEMBRANE

ALSAN FLASHING one-component polyurethane bitumen resin liquid applied waterproofing membrane.

2.11 MASTIC SEALANT

ALSAN MASTIC 2200 bitumen & synthetic rubber flexible mastic.

2.12 ALUMINIUM C-PROFILE

Duo C-Profile extruded aluminium profile 50mm wide x 2500mm long for termination of waterproofing membrane to upstands.

2.13 ALUMINIUM ROOF EDGE PROFILE

Roof Edge Profile Classic Plus 110/60 extruded aluminium profile for termination of waterproofing membrane 60mm wide with 110mm vertical exposed face forming drip edge and 45mm horizontal fastening zone.

Accessories

2.14 ROOF VENT

Equus Short Roof Vent domed vent 250mm Ø x 100mm high.

2.15 OUTLETS - ROOF DRAINS AND OVERFLOWS

Allproof roof drains and overflows. Refer to SELECTIONS.

2.16 OUTLETS - SCUPPER

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Equus Stainless Steel Scupper 200mm aperture width x 75mm aperture height. Face height 150mm, face width 350mm, outlet length 400mm.

2.17 SOLAR PANEL SUPPORT SYSTEM

4421EN EQUUS NOVA-SK FLAMELESS ROOF & DECK MEMBRANE BY SOPREMA Page 5





Equus SOPREMA SOPRASOLAR FIX EVO TILT (Bitumen) support system for photovoltaic solar panels.

2.18 FLOATING DECK AND PAVER SUPPORT SYSTEM

Equus FIXPLUS proprietary adjustable support system for floating decks and pavers. Refer to 4381EF EQUUS FIXPLUS DECK SUPPORT SYSTEM.

2.19 KRAITEC® STEP RUBBER TILES

Equus SOPREMA KRAITEC STEP 500mm x 500mm x 30mm rubber granulate tile for protection of waterproofing membranes on flat roofs, supplied grey as standard with black, green and red available on request. Refer to SELECTIONS.

3 EXECUTION

Conditions

3.1 DELIVERY, STORAGE & HANDLING OF PRODUCTS

Refer to 1270 CONSTRUCTION for requirements relating to delivery, storage and handling of products.

3.2 ROUTINE MATTERS

Refer to 1250 TEMPORARY WORKS & SERVICES for protection requirements. Refer to 1270 CONSTRUCTION for requirements relating to defective or damaged work, removal of protection and cleaning.

3.3 PRE-INSTALLATION REQUIREMENTS

Check work previously carried out and confirm it is of the required standard for this part of the work. Ensure moisture content is:

Timber substrate: 20% maximum

Concrete substrate: 75% maximum relative humidity

Confirm that the substrate, including fillets, sumps, outlets and projections, will ensure work of the required standard. Ensure the falls are the correct falls to rainwater outlets to avoid ponding.

3.4 INSTALLATION SEQUENCE - WARM ROOF SYSTEMS

Install SOPREMA NOVATHERM system components, vapour barrier, insulation sheets with membrane in sections to produce a weather-tight section each day complete with all joint seams, edge flashings and terminations. Cover off exposed edge at the end of each workday or if rain is imminent to ensure complete system remains dry.

Installation - Generally

3.5 GENERALLY

All work and materials to comply with Equus Industries Ltd installation instructions, NZBC E2/AS1, SOPREMA Roofer's Guide Bituminous Membranes 2021 and the WMAI Code of Practice for Reinforced Modified Bitumen Membrane Systems for Roofs and Decks.

3.6 STANDARDS AND TOLERANCES

Refer to the general section 1270 CONSTRUCTION for general requirements.

3.7 PRELIMINARY WORK

Ensure that preliminary work, including formation of falls, flashing rebates, grooves, ducts, penetrations, provision of battens and fillets and fixing of vents and outlets to levels, is complete and properly constructed to enable the system to work as intended. This work and the substrate to be smooth, clean, dry and stable.

3.8 MINIMUM FALLS

Minimum falls for SOPREMA NOVA-SK and SOPREMA NOVATHERM membrane systems are:

- minimum fall for a roof and deck is not less than 1:80 (0.7°), to CodeMark CMNZ70151
- minimum fall for a gutter is not less than 1:100 (0.57°), to CodeMark CMNZ70151

Installation Requirements - Plywood substrate

3.9 PLYWOOD SUBSTRATE GENERALLY





Plywood shall be a minimum of 17mm for roofs, and 21mm for decks. Sheets shall be laid tight butt jointed to maximise the use of whole sheets with sheet joints laid over framing members, in a staggered brick-bond pattern, running across the fall of the roof.

Fix plywood in accordance with the Manufacturer's instructions using countersunk stainless-steel screws, with all sheets laid in a bead of construction adhesive. Screws shall be fixed at 150mm centres on sheet perimeter and 200mm through the body of the sheet. Tongue and Groove plywood does not negate any of the above requirements.

Installation Requirements - Concrete substrate

3.10 CONCRETE SUBSTRATE GENERALLY

Allow sufficient drying time after the concrete has been poured which is generally between 14 and 28 days. Ensure that all traces of curing compound are gone or removed before commencing installation and any holes or voids are patched. Finish concrete to NZS 3114 U3, with a light trowel texture. Stone flush all ridges and protrusions. Water blast to remove all detritus and allow to dry. Existing substrates and structures must be thoroughly inspected prior to specification.

Note that compliance for falls and drainage on concrete roofs and decks is achieved using specific design criteria to suit the project following WMAI Code of Practice and Manufacturer acceptable tolerances.

3.11 EXPANSION MOVEMENT JOINTS

For expansion/ movement joints refer to details on the drawings.

Installation Requirements - Metal tray substrate

3.12 METAL TRAY SUBSTRATE GENERALLY

Confirm metal tray substrate is minimum 0.7mm gauge reverse profile run metal roofing to AS 1562.1-1992 and HB 39-1997. Installed in accordance with manufacturer's and Equus requirements.

Installation Requirements - Cross Laminated Timber (CLT)

3.13 CROSS LAMINATED TIMBER SUBSTRATE GENERALLY

All sections shall be laid to manufacturer's instructions with all edges fully supported. Ensure joints are flush with edges chamfered and the surface is even and left clean and free of debris and dry before membrane application.

Application - Electronic Leak Detection - conductive surface (by membrane installer)

3.14 INSTALL ELECTRONIC LEAK DETECTION CONDUCTIVE SURFACE

Install electronic leak detection conductive surface, in accordance with manufacturer's requirements. Refer to SELECTIONS.

Installation - Cold roof NOVA-SK waterproofing membrane

3.15 APPLY PRIMER

Apply one coat of Equus Peel and Stick Primer to substrate using brush, roller with heavy nap or spray at rate of 6-8 sqm/litre to manufacturer's instructions. Allow to dry for 1 hour minimum.

3.16 APPLY NOVA-SK BASE SHEET

Unroll first roll of NOVA-SK membrane and position, cutting to length. Remove siliconised film and press membrane into place over substrate using weighted membrane roller, rolling evenly. Position and press next roll with 80mm minimum side laps and 150mm minimum end laps, offsetting end laps in adjacent runs. If required, use hot air gun to assist with closing laps. Install perimeter fixings at 300mm centres.

3.17 APPLY NOVA-SK MINERAL CAP SHEET

Unroll first roll of NOVA-SK MINERAL membrane and position, cutting to length. Remove siliconised film and press membrane into place over the base sheet using weighted membrane roller, rolling evenly. Position and press next roll with 80mm minimum side laps and 150mm minimum end laps, offsetting all laps from base sheet laps. If required, use hot air gun to assist with closing laps.

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4421EN EQUUS NOVA-SK FLAMELESS ROOF & DECK MEMBRANE BY SOPREMA Page 7





Installation - NOVATHERM warm roof insulation and waterproofing membrane

3.18 APPLY PRIMER

Apply one coat of Equus Peel and Stick Primer to substrate using brush, roller with heavy nap or spray at rate of 6-8 sqm/litre to manufacturer's instructions. Allow to dry for 1 hour minimum.

3.19 APPLY PRIMER TO UPSTANDS

Apply one coat of Equus Peel and Stick Primer to upstands using brush, roller with heavy nap or spray at rate of 6-8 sqm/litre to manufacturer's instructions. Allow to dry for 1 hour minimum.

3.20 APPLY VAPOUR BARRIER

Unroll first roll of SOPRASTICK membrane and position, cutting to length. Remove siliconised film and press membrane into place using weighted membrane roller. Position and press next roll with 80mm minimum side laps and 100mm minimum end laps, offsetting end laps in adjacent runs. If required, use hot air gun to assist with closing laps. Continue membrane 50mm past top of insulation board onto upstands.

3.21 INSTALL INSULATION

Install the Equus PIR thermal insulation in a brick pattern using full boards where possible. Boards shall be fixed in place using COLTACK EVOLUTION PU FOAM adhesive applied in accordance with the fixing pattern in the project specific SOPREMA wind uplift report fixing layout plan. Multiple layers of board shall be glued with adhesive between each board. Apply silver tape to all sheet joints and exterior parapet joins.

3.22 APPLY NOVA-SK BASE SHEET TO INSULATION

Unroll first roll of NOVA-SK membrane and position, cutting to length. Remove siliconised film and press membrane into place over insulation using weighted membrane roller, rolling evenly. Position and press next roll with 80mm minimum side laps and 150mm minimum end laps, offsetting end laps in adjacent runs. If required, use hot air gun to assist with closing laps. Install perimeter fixings at 300mm centres.

3.23 APPLY NOVA-SK MINERAL CAP SHEET

Unroll first roll of NOVA-SK MINERAL membrane and position, cutting to length. Remove siliconised film and press membrane into place over the base sheet using weighted membrane roller, rolling evenly. Position and press next roll with 80mm minimum side laps and 150mm end laps, offsetting all laps from base sheet laps. If required, use hot air gun to assist with closing laps.

Installation - Penetration detailing & membrane termination

3.24 DETAILING GENERALLY

Waterproof all outlets, penetrations, gutter stop ends, parapet upstands, pedestals, machinery plinths and any other details to the roof surface using NOVA-SK MINERAL cap sheet in conjunction with ALSAN FLASHING liquid applied membranes. Apply ALSAN MASTIC 2200 mastic sealant where detail requires. All detailing to be in accordance with Equus installation instructions and detail drawings.

3.25 TERMINATE MEMBRANE

Terminate membrane at upstands with aluminium C-Profile and ALSAN MASTIC 2200 mastic. Terminate membrane at parapets with aluminium roof edge profile. All terminations to be in accordance with Equus installation instructions and detail drawings.

3.26 INSTALL SOLAR PANEL SUPPORT SYSTEM

Heat weld support pedestals to cap sheet membrane in accordance with Equus installation instructions.

3.27 INSTALL FLOATING DECK AND PAVER SUPPORT SYSTEM

Refer to 4381EF EQUUS FIXPLUS DECK SUPPORT SYSTEM.

3.28 INSTALL RUBBER TILES

Install Equus SOPREMA KRAITEC® STEP rubber tiles in accordance with manufacturer's instructions.

Completion & Commissioning

3.29 COMPLETION MATTERS





Refer to 1270 CONSTRUCTION for completion requirements and if required commissioning requirements.

4 SELECTIONS

For further details on selections go to www.equus.nz.

Substitutions are not permitted to the following, unless stated otherwise.

Materials

4.1 EQUUS SOPREMA NOVA-SK SYSTEM MEMBRANE - COLD ROOF

Location: ~

Supplier: Equus Industries Limited

Type/Brand: Equus SOPREMA NOVA-SK System

Substrate:

Primer: Equus Peel and Stick Primer

Base sheet: NOVA-SK

Cap sheet: NOVA-SK MINERAL

4.2 EQUUS SOPREMA NOVATHERM SYSTEM MEMBRANE OVER PIR INSULATION - WARM ROOF

Location: ~

Supplier: Equus Industries Limited

Type/Brand: Equus SOPREMA NOVATHERM System

Substrate: ~ Primer: ~

Vapour barrier: SOPRASTICK

Insulation: SOPRA-ISO SILVER PIR insulation board

Insulation thickness/R ~

value:

Insulation fixing: Adhesive fixed with COLTACK EVOLUTION PU FOAM

Base sheet: NOVA-SK

Cap sheet: NOVA-SK MINERAL

Accessories

4.3 ROOF VENT

Location:

Type: Equus Short Roof Vent Size: $250 \text{mm} \varnothing \text{ x } 100 \text{mm} \text{ high}$

4.4 OUTLET

Location: ~
Type/Brand: ~
Size: ~
Downpipe diameter: ~
Grill type: ~

4.5 OVERFLOW

Location: ~
Type/Brand: ~
Size: ~
Downpipe diameter: ~

Grill type: Overflow

4.6 OUTLETS - STAINLESS STEEL SCUPPERS

Location:

Type/Brand: Equus Stainless Steel Scupper Size: 200mm wide x 75mm high aperture

4.7 EQUUS SOPREMA KRAITEC STEP

Location: ~





Type/brand: Equus Soprema Kraitec Step Size: 500mm x 500mm x 30mm

Colour: ~

4.8 EQUUS SOPREMA SOPRASOLAR FIX EVO TILT SOLAR PANEL SUPPORTS

Location: ~

Type/brand: Equus Soprasolar

Size: ~

Electronic Leak Detection

4.9 ELECTRONIC LEAK DETECTION SYSTEM

Location: ~
Substrate: ~
System: ~







Quality Assurance

EQUUS SOPREMA NOVATHERM

Two layer flameless membrane warm roof system applied to plywood surfaces

Spe	cification No:	Date Prepared: November 2023
Proj	iect & Address:	
Cert	tified Applicator:	
Buil	ding Contractor:	
Buil	ding Owner/Property M	lanager:
1. S	tatement of Intent	
(a)	step record of comprequirements of the Ma	completed by both the Equus Applicator and the Building Contractor, as a step by liance with both the Equus Specification provided for the contract, and the anufacturers for Warranty.
(b)	Warranty will not be is	t must be forwarded to the nearest Regional Office of Equus Industries Ltd. A sued by Equus Industries Ltd. without a copy of this Checklist being filed.
(a)	A copy of this checklist on job completion.	st should form part of the Contract Documentation filed with the Property Manager
2. A	reas Treated	
The	areas to which the Warn	n Roof is applied are detailed below, with reference to plans (where appropriate).
3. S	ign Off	
We each	confirm that all applicabl n stage has been made b	e processes listed in Section 4 have been correctly completed and that sign-off on by a person with the authority to do so.
For:		(Signature)
	(Building Contractor)	
Date	e:	(Name)
For:		(Signature)
	(Equus Applicator)	
Date	e: / /	(Name)







4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
1.*	Plywood surface installed correctly, with all corner fillets installed.				
2.*	Ensure outlets are sufficiently sized for anticipated run-off.				
3.*	Falls to be incorporated as per plans: □ Specified falls: or standard minimum falls: □ Gutters 1:100 □ Roof 1:80 □ Deck 1:80				
4.*	Apply one full coat of EQUUS PEEL AND STICK PRIMER by brush/roller at a spreading rate of 6-8 m²/L. Allow to dry for minimum 1 hour.				
5.*	(Nominate vapour barrier) Install self-adhered vapour barrier				
6.	Install PIR insulation board in a brick pattern with: Mechanically fasten through the center of each board. Mechanically fasten as per the SOPREMA engineered fixing plan Adhere using Equus PU Foam adhesive.				
7.	Install mineral wool insulation in a brick pattern. Using one fastener per board to tack in place.				
8.	Install roofboard where required, and prime using EQUUS PEEL AND STICK PRIMER by brush/roller at a spreading rate of 6-8 m²/L. Allow to dry for minimum 1 hour.				
9.	Unroll NOVA-SK base sheet, align and cut to length, discard inner roll packaging, remove film and press membrane down using a roller to ensure full coverage. Maintain laps minimum 100mm.				
10.	Unroll NOVA-SK MINERAL cap sheet, discard packaging, align and cut to length, remove film and press membrane down using a roller to ensure full coverage, and off-set laps to not coincide with base sheet. Use hot air gun to apply heat to laps and roll with hand roller to ensure full closure of all laps. Maintain a minimum 100mm side and 150mm end lap.				

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4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
11.	Detailing shall occur using NOVA-SK MINERAL cap sheet and/or ALSAN FLASHING or MATACRYL THIX with DEXX TOPCOAT on all outlets, pipe penetrations, gutter stops ends, parapet upstands, machinery plinths and anything above or below roof surface.				
12.	Membrane terminated with C-PROFILE and ALSAN MASTIC 2200 sealant				
13.	Install FIXPLUS tile supports, KRAITEC STEP rubber tiles or SOPRASOLAR FIX EVO TILT photovoltaic panel supports where required.				
14.*	System to be inspected on completion.				
15.	Re-inspection of work after 2 – 3 weeks.				

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Quality Assurance

EQUUS SOPREMA NOVATHERM

Two layer flameless membrane warm roof system applied to metal tray surfaces

Spec	iffication No:		Date F	repared: November 2023	
Proje	ct & Address:				
Certi	fied Applicator:				
Build	ing Contractor:				
Build	ing Owner/Property M	anager:			
1. Sta	tement of Intent				
(a) (b) (a)	step record of comp requirements of the Ma A copy of this checklist Warranty will not be iss	liance with both to anufacturers for War to must be forwarded sued by Equus Indu	he Equus Specificati rranty. to the nearest Region stries Ltd. without a co	and the Building Contractor, as a ste on provided for the contract, and al Office of Equus Industries Ltd. A py of this Checklist being filed. nentation filed with the Property Mar	d the
2. Are	eas Treated				
The a	reas to which the Warm	Roof is applied are	e detailed below, with r	eference to plans (where appropriate	÷).
3. Sic	ın Off				
We co	onfirm that all applicable stage has been made b	e processes listed in y a person with the	n Section 4 have beer authority to do so.	correctly completed and that sign-c	off or
For:				(Signature)	
	(Building Contractor)				
Date:				(Name)	
For:				(Signature)	
	(Equus Applicator)		-	(0.916.610)	
Date:	,			(Name)	







4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
1.*	Metal deck installed in accordance with Manufacturer's recommendation.				
2.*	Outlets are sufficiently sized for anticipated run-off.				
3.*	Metal roof edges overhanging into gutters are cut back and timber upstand installed at the height of insulation board.				
4.*	Falls to be incorporated as per plans: □ Specified falls: or standard minimum falls: □ Gutters 1:100 □ Roof 1:80 □ Deck 1:80				
5.	Metal surface satisfactory for installation of membrane by Equus Certified Applicator.				
6.	For details and upstands. Apply one full coat of EQUUS PEEL AND STICK PRIMER by brush/ roller at a spreading rate of 6-8 m²/L. Allow to dry for minimum 1 hour.				
7.	(Nominate vapour barrier) Install vapour barrier either fully torched, or self-adhered.				
8.	Install PIR insulation board in a brick pattern with: □ Mechanically fasten through the center of each board. □ Mechanically fasten as per the SOPREMA engineered fixing plan □ Adhere using Equus PU Foam adhesive.				
9.	Install mineral wool insulation in a brick pattern. Using one fastener per board to tack in place.				
10.	Install roofboard where required, and prime using EQUUS PEEL AND STICK PRIMER by brush/roller at a spreading rate of 6-8 m ² /L. Allow to dry for minimum 1 hour.				
11.	Unroll NOVA-SK base sheet, align and cut to length, discard inner roll packaging, remove film and press membrane down using a roller to ensure full coverage. Maintain laps minimum 100mm.				
12.	Unroll NOVA-SK MINERAL cap sheet, discard packaging, align and cut to length, remove film and press membrane down using a roller to ensure full coverage, and off-set laps to not coincide with base sheet. Use hot air gun to apply heat to laps and roll with hand roller to ensure full closure of all laps. Maintain a minimum 100mm side and 150mm end lap.				

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4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
13.	Detailing shall occur using NOVA-SK MINERAL cap sheet and/or ALSAN FLASHING or MATACRYL THIX with DEXX TOPCOAT on all outlets, pipe penetrations, gutter stops ends, parapet upstands, machinery plinths and anything above or below roof surface.				
14.	Membrane terminated with C-PROFILE and ALSAN MASTIC 2200 sealant				
15.	Install FIXPLUS tile supports, KRAITEC STEP rubber tiles or SOPRASOLAR FIX EVO TILT photovoltaic panel supports where required.				
16.*	System to be inspected on completion.				
17.	Re-inspection of work after 2 – 3 weeks.				

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Quality Assurance

EQUUS SOPREMA NOVATHERM

Two layer flameless membrane warm roof system applied to concrete surfaces

Spe	cification No:	Date Prepared: November 2023
Proj	ect & Address:	
Cert	tified Applicator:	
Buil	ding Contractor:	
Buil	ding Owner/Property N	anager:
1. S	tatement of Intent	
(a)	step record of comprequirements of the Ma	completed by both the Equus Applicator and the Building Contractor, as a step by iance with both the Equus Specification provided for the contract, and the inufacturers for Warranty.
(b) (a)	Warranty will not be is	must be forwarded to the nearest Regional Office of Equus Industries Ltd. A sued by Equus Industries Ltd. without a copy of this Checklist being filed. It should form part of the Contract Documentation filed with the Property Manager
2. A	reas Treated	
The	areas to which the Warn	Roof is applied are detailed below, with reference to plans (where appropriate).
3. S	ign Off	
We each	confirm that all applicabl n stage has been made b	e processes listed in Section 4 have been correctly completed and that sign-off or y a person with the authority to do so.
For:		(Signature)
Date	(Building Contractor) e: / /	(Name)
For:		(Signature)
	(Equus Applicator)	
Date	e: <u>/ / </u>	(Name)







4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
1.*	Concrete correctly formed to falls as per plans and cured at least 28 days prior to membrane application.				
2.*	Concrete to have all ridges and protrusions stoned flush.				
3.*	Shall be finished to NZS3114:1987 U3, with light trowel texture or suitably diamond ground.				
4.*	Depressions flushed with Schomburg ASOCRET BIS 5/40 or and allowed to cure 48 hours before overcoating.				
5.*	Ensure outlets are sufficiently sized for anticipated run-off.				
6.*	Falls to be incorporated as per plans: □ Specified falls: or standard minimum falls: □ Gutters 1:100 □ Roof 1:80 □ Deck 1:80				
7.	Concrete surface satisfactory for installation of membrane by Equus Certified Applicator.				
8.	Apply one full coat of EQUUS PEEL AND STICK PRIMER by brush/roller at a spreading rate of 6-8 m²/L. Allow to dry for minimum 1 hour.				
9.	(Nominate vapour barrier) Install self-adhered vapour barrier either.				
10.	Install PIR insulation board in a brick pattern with: Mechanically fasten through the center of each board. Mechanically fasten as per the SOPREMA engineered fixing plan Adhere using an Equus PU Foam adhesive.				
11.	Install mineral wool insulation in a brick pattern. Using one fastener per board to tack in place.				
12.	Install roofboard where required, and prime using EQUUS PEEL AND STICK PRIMER by brush/roller at a spreading rate of 6-8 m ² /L. Allow to dry for minimum 1 hour.				

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4. Checklist And Method Statement

* Denotes those processes which must be signed off by the Building Contractor as well.

No.	Process	Completed On	Building Contractor	Equus Contractor	Notes
13.	Unroll NOVA-SK base sheet, align and cut to length, discard inner roll packaging, remove film and press membrane down using a roller to ensure full coverage. Maintain laps minimum 100mm.				
14.	Unroll NOVA-SK MINERAL cap sheet, discard packaging, align and cut to length, remove film and press membrane down using a roller to ensure full coverage, and off-set laps to not coincide with base sheet. Use hot air gun to apply heat to laps and roll with hand roller to ensure full closure of all laps. Maintain a minimum 100mm side and 150mm end lap.				
15.	Detailing shall occur using NOVA-SK MINERAL cap sheet and/or ALSAN FLASHING or MATACRYL THIX with DEXX TOPCOAT on all outlets, pipe penetrations, gutter stops ends, parapet upstands, machinery plinths and anything above or below roof surface.				
16.	Membrane terminated with C-PROFILE and ALSAN MASTIC 2200 sealant				
17.	Install FIXPLUS tile supports, KRAITEC STEP rubber tiles or SOPRASOLAR FIX EVO TILT photovoltaic panel supports where required.				
18.*	System to be inspected on completion.				
19.	Re-inspection of work after 2 – 3 weeks.				

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CodeMark

Certificate no: CMNZ70151 Version: 0

Original issue date: 30 June 2023 Version date: 30 June 2023

1. Certificate Holder Details



SOPREMA NEW ZEALAND LTD

Level 1, 245 High Street, Hutt Central Lower Hutt 5010 New Zealand www.soprema.com.au

Distributed in New Zealand by:



Equus Industries

info@equus.nz Ph: +64 3 353 2434 www.equus.nz

2. Product Certification Body

Bureau Veritas Australia Pty Ltd

11/500 Collins Street
Melbourne VIC 3000 Australia

product.certification@bureauveritas.com

Ph: 1800 855 190 www.bureauveritas.com.au

Complaints: The complaints process for this certificate can be found here: www.bureauveritas.com.au/your-feedback



Product Certificate

SOPREMA NEW ZEALAND LTD

Waterproofing Membrane Systems

3. Description of Building Method or Product

Name of the product or method in Actearoa New Zealand, including any brand names used. Description of what it is and the components that make up any system and its physical attributes including the materials and make-up of the product, where applicable.

Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use

The building method's or building product's catalogue or model identification number or numbers or other unique identifiers that might be used to identify the building product or building method

SOPREMA Waterproofing Membrane Systems are reinforced, double-layer bituminous waterproofing membrane systems, consisting of a cap sheet (DuO, Nova-SK, SOPRASUN and SOPRALENE) used with a basesheet (Soprasun Plus 3, DeboFlex, DeboTack, Soprastick, Nova-SK).

4. Intended use of Building Method or Product

Intended use of the building method or product as described in the product manual and other instructional materials.

A statement of the function or purpose of the building method or product.

SOPREMA Waterproofing Membrane Systems provide a waterproofing system, on new and existing roofs, podiums and decks of any size. SOPREMA Waterproofing Membrane Systems may be installed on a cold roof with insulation installed below the substrate or as a warm roof with PIR or Mineral Wool insulation installed above the substrate. A system incorporating a root-resistant cap sheet can be used in green roofs.

5. New Zealand Building Code Provisions

The performance clauses of the New Zealand Building Code that are relevant to the intended use and with which the building method or product complies or contributes to (where used as part of a system). eg Clause B2 – DURABILITY Performance B2.3.1

 $How \ the \ building \ method \ or \ product \ complies \ or \ contributes \ can \ be \ found \ in \ item \ 9. \ Basis \ for \ Certification.$

Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.

Clause B2 Durability: Performance Clauses B2.3.1(a*, b), B2.3.2(a*) (* when protected e.g. with pavers or green roof)

Clause E2 External moisture: Performance Clauses E2.3.1 (contributes to), E2.3.2, E2.3.7

Clause F2 Hazardous building materials: Performance Clauses F2.3.1



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SOPREMA NEW ZEALAND LTD – Waterproofing Membrane Systems



6. Conditions and Limitations of Use

The building method or product's use is to be in accordance with the installation instructions and requirements against which the building method or product was assessed.

Conditions or limitations of conformity for the performance requirements the building method or product is compliant with, including any requirements for people with the qualifications and skills to install or use the building method or product, any known or demonstrated situations where the building method or product should not be used. A statement as to whether there are any matters that should be taken into account in the use or application of the building product or building method and, if so, what those matters are.

NOTE: Together, items 3,4,5 and 6 define scope of use

- 1. SOPREMA Waterproofing Membrane Systems are certified for use:
 - a. on buildings
 - i. within the scope limitations of NZBC Acceptable Solution E2/AS para 1.1 located in all wind zones up to and including Extra High (as in NZS3604:2011), or
 - ii. subject to specific structural engineering design (complying with Verification Method B1/VM1 and referenced Standard AS/NZS1170:2002 Structural Design Actions and relevant cited material standard) up to:
 - 1) a maximum ULS wind design pressure of 4.5 kPa, or
 - higher ULS wind design pressures subject to the manufacturer's site specific fastening requirements to resist wind forces as determined by AS/NZS 1170, and
 - b. where the finished fall is not less than 1:80 for roofs, podiums and decks and not less than 1:100 for gutters
 - c. applied to the following substrates:
 - i. H3.2 treated timber, including plywood sheets and reconstituted wood panels (Strandboard), Cross laminated timber (CLT) (directly to the timber substrate or to PIR or Mineral Wool boards in between the substrate and basesheet). The preservative treatment shall not be LOSP (light organic solvent preservative) or CuN (copper nitrate).
 - ii. Concrete substrates (directly to the concrete substrate or to PIR or Mineral Wool boards in between the substrate and basesheet).
 - iii. SOPREMA approved metal tray decks (to PIR or Mineral Wool boards in between the metal tray deck substrate and basesheet).
 - iv. SOPREMA approved roof cover boards.
 - v. SOPREMA approved insulated panels.
- 2. SOPREMA Waterproofing Membrane Systems shall be:
 - a. designed and installed in accordance with the SOPREMA Roofers Guide Bituminous Membranes 2021 Edition, and
 - b. installed by a SOPREMA Certified Applicator (see https://equus.nz/find-an-applicator-3/ to find an approved installer in New Zealand).
 - c. protected (e.g by pavers) where subject to general pedestrian traffic. For light roof maintenance foot traffic, it is suitable to remain unprotected.



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SOPREMA NEW ZEALAND LTD - Waterproofing Membrane Systems



7. Health and Safety Information

Health, safety, and well-being declarations associated with installation, maintenance, and use of the building method or product, and their specific editions and dates necessary to ensure the performance requirements of clauses F1 to F9 of the Building Code can be met.

The compliance with any manufacturer's installation instructions, maintenance, OH & S Statements, MSDS's and other Health and Safety declarations will provide the necessary Health and Safety Information pertaining to the product.

8. Signatures

Name and Signature of the Product Certification Body's (PCB) authorised representative and, where different, the person assigned by the PCB to make the certification decision.

Sam Guindi

Product Certification Manager

Gund-

For and on behalf of Bureau Veritas Australia Pty Ltd

9. Basis for Certification

How the performance requirements in the Building Code were met for each of the provisions. Where used as part of a system, the specific contribution to compliance.

B2 Durability - By testing and comparison with Verification Method B2/VM1

E2 External moisture - By testing and comparison with Acceptable Solution E2/AS1

F2 Hazardous building materials - By comparison with the performance requirements of the Building Code clause F2.3.1



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SOPREMA NEW ZEALAND LTD – Waterproofing Membrane Systems



10. Supporting Documentation for Certification

Reference to any Acceptable Solutions, Verification Methods, New Zealand Standards, or other compliance pathways referenced against each individual performance requirement the building method or product is compliant with, and their specific version and date.

Reference to documents describing tests and evaluations and any other documents relied on for certification or used to prove compliance, including their full title, specific version and date.

- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability Second edition (Amendment 12),
 November 2019
- Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 for New Zealand Building Code Clause E2 External Moisture Third edition (Amendment 10), 5 November 2020
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B1 Structure First edition (Amendment 20), 29
 November 2021
- NZS3604:2011 Timber framed buildings
- AS/NZS1170:2002 Structural Design Actions
- ATG 1924 Technical Approval, Belgian Construction Certification Association, 2 November 2022
- ATG 2814 Technical Approval, Belgian Construction Certification Association, 6 April 2021
- BBA Agrément Certificate 20/5843, Soprema Modified Bitumen Membranes, DUO High Tech Waterproofing Membranes, 15 December 2020
- BRANZ Appraisal 520, Novaflex and Polibit Roof and Deck Waterproofing Membranes, 2019
- BRANZ Appraisal 685, Soprema DUO Roof and Deck Membrane Systems, 2021
- BRANZ Appraisal 689, Soprema DUO Roof Membrane Systems, 2021
- BRANZ Appraisal 819, Allnex Soprema Bitumen Roofing Membrane Systems, 2019
- BRANZ Appraisal 1145, Soprema Bitumen Roofing Membrane Systems, 2021
- Roofers Guide Bituminous Membranes 2021 Edition

11. Supporting Information About Description (Optional)

Any supporting information for section 3.

DuO High Tech Waterproofing Membranes comprise a polyester/glass composite reinforcement with an upper coating of thermoplastic polyolefin (TPO)-modified bitumen and a lower coating of styrene butadiene-styrene (SBS)-modified bitumen:

- DuO High Tech the standard membrane, for use in built-up specifications
- DuO High Tech FC an enhanced fire-resistance version of the standard membrane
- DuO High Tech Mecano for use in mechanical fastened specifications
- DuO High Tech FC Mecano an enhanced fire-resistance version of the DuO High Tech Mecano membrane
- DuO High Tech Landscape for use on green roofs and planter boxes
- DuO High Tech FC Landscape an enhanced fire-resistance version of the DuO High Tech Landscape membrane.



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SOPREMA NEW ZEALAND LTD – Waterproofing Membrane Systems



Nova-SK, and Nova-SK Mineral, are self-adhesive bitumen waterproofing membranes, reinforced with nonwoven spun bond polyester in combination with fiberglass.

SOPRASUN is an APP-modified bitumen waterproofing membrane system consisting of a base and cap sheet:

- SOPRASUN PLUS 3 is an APP-modified bitumen waterproofing base sheet membrane designed for roofing applications. SOPRASUN PLUS 3 is reinforced with a non-woven polyester combined with fiberglass. The top surface is sanded and the bottom surface is covered with a thermofusible plastic film.
- SOPRASUN PLUS 4.5KG MINERAL is an APP-modified bitumen waterproofing cap sheet membrane designed for roofing applications. SOPRASUN PLUS 4.5KG MINERAL is reinforced with a non-woven polyester combined with fiberglass. The top surface is coated with slate chips and selvedge edge is slate free on one side; the bottom surface is covered with a thermofusible plastic film.

SOPRALENE is a SBS-modified bitumen waterproofing membrane system consisting of a base and cap sheet:

- SOPRALENE FLAM 180 and SOPRALENE FLAM 180 GR are SBS-modified bitumen waterproofing membranes designed for roofing
 applications. Both membranes are reinforced with an ultra-high strength 180g/m2 non-woven polyester. SOPRALENE FLAM 180 top
 and bottom surface are covered with a thermofusible plastic film. SOPRALENE FLAM 180 GR top surface is covered with granules;
 bottom surface is covered with thermofusible plastic film.
- SOPRALENE FLAM 180 ALU is a flexible SBS elastomeric bitumen waterproofing membrane with a non-woven polyester reinforcement.
 SOPRALENE FLAM 180 ALU can be used as a protection layer on top of waterproofing systems where fire retardant properties are required. The topside is protected by an embossed aluminium foil and the underside is covered by a thermofusible film.
- SOPRALENE FLAM JARDIN CAP is a flexible SBS elastomeric bitumen waterproofing membrane with a non-woven polyester reinforcement. The topside of SOPRALENE FLAM JARDIN CAP is protected by slate chippings and the underside is covered by a thermofusible film. SOPRALENE FLAM JARDIN CAP bitumen mass contains anti-root penetration properties for green roofs.

DeboFlex is a 2.5 mm I/F C175 - a 2.5 mm thick, SBS modified bitumen-based sheet waterproofing membrane with a mixture of talcum and sand on the upper surface and an ultra-thin polyethylene foil on the under layer used as a base layer in multi-layer systems. It has a composite reinforcement of 175 g/m2 polyester and glass and is supplied in 1 m x 10 m rolls.

DeboTack is a flexible self-adhesive waterproofing membrane consisting of a mixture of penetration bitumen, improved with SBS (Styrene-Butadiene-Styrene). It is reinforced with a composite fleece of 175 g/m² polyester and glass.

- DEBOTACK 2.5 T/F C175 is a flexible self-adhesive waterproofing membrane consisting of a mixture of penetration bitumen, improved with SBS (Styrene- Butadiene-Styrene). It is reinforced with a composite fleece of 175 g/m² polyester and glass.
- DEBOTACK 2.5 T/F C175 AERO is a flexible self-adhesive waterproofing membrane consisting of a mixture of penetration bitumen, improved with SBS (Styrene-Butadiene-Styrene). It is reinforced with a composite fleece of 175 g/m² polyester and glass.



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SOPREMA NEW ZEALAND LTD – Waterproofing Membrane Systems



Soprastick and Soprastick Venti are self-adhesive membrane composed of elastomer modified bitumen and a composite polyester reinforcement. Used as a base layer in combination with a torched upper layer. The upper surface is sanded or protected by a thermofusible

12. Supporting Information About Intended Use (Optional)

Any supporting information for section 4.

N/A

13. Supporting Information About Conditions and Limitations of Use (Optional)

Any supporting information for section 6.

N/A



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BRANZ Appraised
Appraisal No. 1169 [2021]

EQUUS SOPREMA WARM ROOF SYSTEM



Appraisal No. 1169 (2021)

Amended 02 November 2022

BRANZ Appraisals

Technical Assessments of products for building and construction.



Equus Industries Ltd

PO Box 601 Blenheim 7240 Tel: 03 578 0214 Web: www.eguus.nz





BRANZ

1222 Moonshine Rd, RD1, Porirua 5381 Private Bag 50 908 Porirua 5240, New Zealand Tel: 04 237 1170 branz.co.nz



Product

Equus Soprema Warm Roof System is an insulating roofing system for limited access flat roofs and decks with concrete, timber or steel structural decks. It consists of a thermal insulation layer and a roof finish of modified bitumen waterproofing membrane or single-ply TPO waterproofing membrane.

Scope

- 2.1 Equus Soprema Warm Roof System has been appraised for use as an insulating roof or deck on buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and maximum floor plan areas; and,
 - on limited access flat roofs with concrete, timber or steel substrates and incorporation of the Equus Soprema Warm Roof System subject to specific structural design; and,
 - with roofs and decks constructed to drain water to gutters and drainage outlets complying with the NZBC; and,
 - with roofs and decks constructed to suitable falls (refer to Paragraphs 15.3 and 15.4); and,
 - · with no integral roof gardens and no direct discharge from downpipes; and,
 - situated in NZS 3604 Wind Zones up to, and including, Extra High.
- 2.2 Equus Soprema Warm Roof System has also been appraised for durability and thermal performance as an insulated roofing system on buildings that are the subject of specific design with no building height restriction. Building designers are responsible for the building design and for the incorporation of Equus Soprema Warm Roof System into their design in accordance with the declared properties and instructions of Equus Industries Ltd.
- 2.3 Equus Soprema Warm Roof System must be installed by Equus Industries Ltd approved and trained installers.



or by contacting BRANZ.







Appraisal No. 1169 (2021) 21 December 2021 EQUUS SOPREMA WARM ROOF SYSTEM

Building Regulations

New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, Equus Soprema Warm Roof System, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet or contribute to meeting the following provisions of the NZBC:

Clause B2 DURABILITY: Performance B2.3.1 [b] 15 years. Equus Soprema Warm Roof System meets this requirement. See Paragraphs 10.1 and 10.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.1 and E2.3.2. Equus Soprema Warm Roof System meets these requirements. See Paragraphs 15.1–15.9.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Equus Soprema Warm Roof System meets this requirement.

Clause H1 ENERGY EFFICIENCY: Performance H1.3.1 [a]. Equus Soprema Warm Roof System contributes to meeting this requirement. See Paragraph 14.1.

Technical Specification

- 4.1 Equus Soprema Warm Roof System is an insulating roofing system for flat roofs and decks. The thermal layer is a polyisocyanurate board or mineral wool insulation board available in a number of thicknesses to suit design requirements. The insulation board is mechanically or adhesive fixed on limited access flat roofs and concrete, timber and steel structural decks. The roof finish is a modified bitumen waterproofing membrane or single-ply TPO membrane, which is adhered to the insulation or roof cover board as per the manufacturer's installation guidelines.
- 4.2 Materials supplied by Equus Industries Ltd are as follows:
 - · Equus Soprema Duo High Tech Waterproofing Membrane System
 - Equus Soprema Flagon TPO Waterproofing Membranes
 - Equus Novaglass Waterproofing Membranes
 - Equus Soprema Deboflex 2.5 mm T/F C175
 - Thermal Insulation: Soprema SOPRA-ISO/Recticel Eurothane Silver/Soprarock Mineral Wool
 - Equus Guardian Fastener Range fixings as below:
 - Wood BSRF 4.8 s/s
 - Metal BS 6.1
 - · Concrete CS 6.1
 - Tubes R75 and ASTL
 - Plates SP-70 and SP-8240
 - Equus Soprema Easyfoam PU Adhesive used to adhere SOPRA-ISO and Eurothane Silver to vapour barrier.

Handling and Storage

5.1 Handling and storage of all materials, whether on-site or off-site, is under the control of the Equus Industries Ltd approved and trained installers. Dry storage must be provided for all products and the rolls of membrane must be stored in an upright position.

Technical Literature

- 6.1 This Appraisal must be read in conjunction with:
 - Equus Soprema Warm Roof System Details D1-D19.
- 6.2 All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.







Appraisal No. 1169 (2021) 21 December 2021

EQUUS SOPREMA WARM ROOF SYSTEM

Design Information

General

- The Equus Soprema Warm Roof System is a roof and deck system which provides thermal insulation 7.1 and waterproofing. It is for use on limited access flat roofs subject only to light foot traffic for maintenance purposes. The insulation board is mechanically fixed or adhered with PU adhesive to concrete, timber or metal structural decks which are subject to specific structural design. The insulation board is available in several thicknesses to suit various thermal insulation designs.
- 72 The system can be used on new or existing roofs subject to the suitability of the structural deck of existing roofs.
- 7.3 The waterproofing membranes are fully-bonded, partially-bonded, adhesive or mechanically fastened Soprema waterproofing systems with a valid BRANZ Appraisal which are two-layer modified bitumen sheet or single-ply TPO with heat welded joints.
- 7.4 A vapour control membrane must be used in Climate Zone 3 (as defined in NZBC Verification Method H1/VM1 and NZBC Acceptable Solution H1/AS1]. The vapour control membrane is selfadhesive and applied over the structural deck before the installation of the insulation board.
- 7.5 The effective control of internal moisture must be considered at the design stage due to the impermeability of the membrane. Refer to the BRANZ Good Practice Guide: Membrane Roofing.

Structure

- In all cases, the fastening requirements are specified by Equus Industries Ltd to resist wind forces as determined by AS/NZS 1170. This calculation is specific to each project.
- 8.2 For buildings subject to specific design, the structural designer must confirm that the fixing has adequate holding into the structural decking.

Substrates

Plywood

Plywood must be treated to H3 (CCA treated). LOSP treated plywood must not be used. Plywood must be a minimum of 17 mm to comply with AS/NZS 2269, at least CD Grade Structural with the sanded C face upwards.

Concrete

9.2 Concrete substrates must be to a specific engineering design meeting the requirements of the NZBC, such as concrete construction to NZS 3101.

Steel

9.3 The steel substrate must be G550 aluminium-zinc AZ150 to AS1397.

Existing Construction

- 9.4 A thorough inspection of the substrate must be made to ensure it is in fit condition.
- Repairs must be undertaken, where applicable, to ensure the substrate is sound. Plywood and steel 9.5 substrates must be checked for screw fixings, and if necessary refixed as for new plywood and steel.

Durability

Serviceable Life

The Equus Soprema Warm Roof System is expected to have a serviceable life of at least 15 years, provided it is designed, used, installed and maintained in accordance with this Appraisal and the Technical Literature.

Chemical Resistance

Industrial air pollutants and windborne salt deposits should not significantly affect the durability of the membrane. However, the long term properties of the material may be affected by contact with petroleum-based products such as oils, greases and solvents.



or by contacting BRANZ





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Maintenance

- 11.1 The membrane roof system, must be regularly (at least annually) checked for damage, rubbish and debris or coating breakdown. Damage, such as small punctures and tears must be repaired and coatings reapplied as recommended by Equus Industries Ltd.
- 11.2 Special care must be taken when inspecting the membrane roof system to ensure the continuing prevention of moisture ingress, and repairs must be undertaken where required.
- 11.3 Drainage outlets must be maintained to operate effectively.

Prevention of Fire Occurring

12.1 Separation or protection must be provided to the Equus Soprema Warm Roof System from heat sources such as fireplaces, heating appliances, flues and chimneys. Part 7 of NZBC Verification Method C/VM1 and Acceptable Solution C/AS1, and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

Fire Affecting Areas Beyond the Fire Source

Control of Internal Fire and Smoke Spread

- 13.1 The Equus Soprema Warm Roof System includes Soprema SOPRA-ISO or Recticel Eurothane Silver (combustible insulants) and therefore requires a suitable interior surface finish for the completed system to achieve the required Group Number as specified in C/AS2 Table 4.3. The combustible insulant shall comply with the flame propagation criteria as specified in AS1366 Parts 1-4 for the material being used.
- 13.2 The Soprema SOPRA-ISO or Recticel Eurothane Silver used in the Equus Soprema Warm Roof System has been tested and complies with the flame propagation criteria of AS 1366 as required by NZBC Acceptable Solution C/AS1 Section 4.3 and C/AS2 Paragraph 4.17.2.
- 13.3 Where the system is installed over metal roofing this will not meet the interior surface finish requirements alone and will need to be protected by an interior surface finish meeting the requirements of C/AS2 Table 4.3.

Energy Efficiency

14.1 Thermal resistance (R-Value) of building elements may be verified by using NZS 4214. The R-Values for the insulation are given in Table1.

Table 1: R-Values

Thickness	R-Value
SOPRA-ISO/Eurothane Silver 40 mm	1.7
SOPRA-ISO/Eurothane Silver 60 mm	2.5
SOPRA-ISO/Eurothane Silver 80 mm	3.35
SOPRA-ISO/Eurothane Silver 100 mm	4.2
SOPRA-ISO/Eurothane Silver 120 mm	5.05
SOPRA-ISO/Eurothane Silver 140 mm	5.9
SOPRA-ISO/Eurothane Silver 160 mm	6.75
SopraRock 60 mm	1.64
SopraRock 80 mm	2.17
SopraRock 100 mm	2.75
SopraRock 120 mm	3.34
SopraRock 140 mm	3.89







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External Moisture

- 15.1 Roofs must be designed and constructed to shed precipitated moisture. They must also take account of snowfalls in snow prone areas. A means of meeting code compliance with NZBC Clause E2.3.1 is given in the Technical Literature which aligns with details in NZBC Acceptable Solution E2/AS1.
- 15.2 When installed in accordance with this Appraisal and the Technical Literature, Equus Soprema Warm Roof System will prevent the penetration of water and will therefore meet code compliance with NZBC Clause E2.3.2. The membranes are impervious to water and will give a weathertight roof.
- 15.3 Roof falls must be built into the substrate or formed using tapered insulation board.
- 15.4 The minimum fall to roofs is 1 in 30 for plywood and steel, 1 in 60 for concrete and 1 in 100 for gutters. The minimum fall for decks is 1 in 40 (Note: Where possible, BRANZ recommends a fall of 1 in 60 in gutters).
- 15.5 Allowance for deflection and settlement of the substrate must be made in the design of the roof to ensure falls are maintained and no ponding of water can occur.
- 15.6 Equus Soprema Warm Roof System is impermeable; therefore a means of dissipating construction moisture must be provided in the building design and construction to meet code compliance with NZBC Clause E2.3.6.
- 15.7 Drainage flanges must be used for any outlet and must be fitted with a grate or cage to reduce potential sources of blockages. An overflow must be provided where the roof does not drain to an external gutter or spouting.
- 15.8 Penetrations and upstands of the membrane must be raised above the level of any possible flooding caused by the blockage of roof drainage.
- 15.9 The design of details not covered by the Technical Literature is subject to specific weathertightness design and is outside the scope of this Appraisal.

Condensation Control

16.1 In Climate Zone 3, as defined in NZBC Verification Method H1/VM1 and NZBC Acceptable Solution H1/AS1-Definitions, a vapour control membrane must be installed over the substrate prior to installing the insulation.

Water Supplies

- 17.1 Water is not contaminated by Equus Duo High Tech Waterproofing Membrane System or Equus Novaglass Waterproofing Membranes.
- 17.2 The first 25 mm of rainfall from a newly installed roof must be discarded before water collection starts. This is to remove residues which may have developed in the process involved in the production of the Equus Soprema Warm Roof System.
- 17.3 Though it will not contaminate water, it must be noted that all water collected off roof surfaces made from any material is considered to be non-potable due to possible contamination from other sources. Water collection in this way can only be considered potable if it has been passed through a suitable sterilization system and tested. Sterilization systems such as this have not been assessed and are outside the scope of this Appraisal.
- 17.4 Equus Soprema Flagon TPO Waterproofing Membranes have not been assessed for roofs used for the collection of potable water.

Installation Information

Installation Skill Level Requirement

18.1 Installation must always be carried out in accordance with Equus Soprema Warm Roof System Technical Literature and this Appraisal by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant Licence Class.







Appraisal No. 1169 (2021) 21 December 2021 EQUUS SOPREMA WARM ROOF SYSTEM

- 18.2 Installation and finishing of components and accessories supplied by Equus Industries Ltd and its approved and trained installers must be completed by approved and trained installers, approved by Equus Industries Ltd.
- 18.3 Installation of the accessories supplied by the building contractor must be carried out in accordance with Equus Soprema Warm Roof System Technical Literature and this Appraisal by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant Licence Class.

Preparation of Substrates

- 19.1 Substrates must be dry, clean and stable before installation commences.
- 19.2 The relative humidity of concrete substrates must be 75% or less before membrane application. The concrete can be checked for dryness by using a hygrometer, as set out in BRANZ Bulletin No. 585.
- 19.3 The moisture content of the plywood and timber substructure must be a maximum of 20% and the plywood sheets must be dry at time of membrane application.

System Installation

- 20.1 The Equus Soprema Warm Roof System must be installed in accordance with the Technical Literature.
- 20.2 Where a vapour layer is required, it is installed onto the substrate followed by the insulation. The insulation is set out in a brick bond fashion and is adhered with PU adhesive or screwed down using the screws and washers as defined in the Technical Specification.
- 20.3 The membranes are then installed as per the Technical Literature.

Inspections

- 21.1 Critical areas of inspection for waterproofing systems are:
 - Construction of substrates, including crack control and installation of bond breakers and movement control joints.
 - · Moisture content of the substrate prior to the application of the system.
 - Acceptance of the substrate by the system installer prior to application of the system.
 - Installation of the system to the Technical Literature.

Health and Safety

22.1 Safe use and handling procedures for Equus Soprema Warm Roof System are provided in the Technical Literature. The products must be used in conjunction with the relevant Material Safety Data Sheets for each membrane.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 23.1 The following is a summary of the testing and test reports on Equus Soprema Warm Roof System:
 - The manufacture of the membranes has not been examined by BRANZ, but details regarding
 the quality and composition of the materials used were obtained by BRANZ and found to be
 satisfactory. The manufacturer of Soprema DuO Roof and Deck Membrane Systems has been
 assessed and registered as meeting the requirements of ISO 9001 and ISO 14001.
 - Testing has been carried out on the membranes for elongation, tensile strength, seam strength, breaking strength, low temperature, resistance to aging, water absorption, resistance to ultraviolet (UV) and peel adhesion to plywood and concrete.
 - Dimensions, density, thermal conductivity, compressive strength, tensile strength, fire behaviour (Class E), water absorption, specific heat capacity, water vapour diffusion resistance and linear expansion coefficient.
- 23.2 The above test methods and results have been reviewed by BRANZ and found to be satisfactory.







Appraisal No. 1169 (2021) 21 December 2021 EQUUS SOPREMA WARM ROOF SYSTEM

Other Investigations

- 24.1 A durability opinion has been provided by BRANZ technical experts.
- 24.2 Installation of the insulation and membranes has been assessed by BRANZ for practicability of installation and found to be satisfactory.
- 24.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

- 25.1 The manufacture of the components of the system has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.
- 25.2 The quality of the supply of products to the New Zealand market is the responsibility of Equus Industries Ltd.
- 25.3 Quality on-site is the responsibility of the Equus Industries Ltd approved and trained installers.
- 25.4 Designers are responsible for the building design, and building contractors are responsible for the quality of construction of substrate systems in accordance with the instructions of Equus Industries Ltd and this Appraisal.
- 25.5 Building owners are responsible for the maintenance of the membrane system in accordance with the instructions of Equus Industries Ltd and this Appraisal.

Sources of Information

- AS 1366:1992 Rigid cellular plastics sheets for thermal insulation.
- AS/NZS 1170:2002 Structural design actions General principles.
- AS/NZS 2269:2012 Plywood structural.
- BRANZ Bulletin No. 585 Measuring Moisture in Timber and Concrete.
- BRANZ Good Practice Guide: Membrane Roofing (second edition), October 2015.
- NZS 3101:2006 The design of concrete structures.
- NZS 3604:2011 Timber-framed buildings.
- NZS 4214:2006 Methods of Determining the Total Thermal Resistance of Parts of Buildings.
- Ministry of Business, Innovation and Employment Record of amendments Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

Amendments

Amendment No. 1, dated 02 November 2022

This Appraisal has been amended to update the product name from Soprema Efyos Blue A to Soprema SOFRA-ISO.







BRANZ Appraisal Appraisal No. 1169 (2021) 21 December 2021 EQUUS SOPREMA WARM ROOF SYSTEM



In the opinion of BRANZ, Equus Soprema Warm Roof System is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to Equus Industries Ltd, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

- 1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
- 2. Equus Industries Ltd:
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
- 3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by Equus Industries Ltd.
- 4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
- BRANZ provides no certification, guarantee, indemnity or warranty, to Equus Industries Ltd or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

21 December 2021







BRANZ Appraised

Appraisal No. 520 [2019]

NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Appraisal No. 520 (2019)

This Appraisal replaces BRANZ Appraisal No. 520 (2013).

Amended 08 June 2023



BRANZ Appraisals

Technical Assessments of products for building and construction.



Marketed By:

Equus Industries Limited

PO Box 601

Blenheim 7240

Email: admin@equus.co.nz

Web: www.equus.co.nz



Manufactured By: Soprema New Zealand Ltd

Web: www.soprema.com.au



BRAN7

1222 Moonshine Rd, RD1, Porirua 5381 Private Bag 50 908 Porirua 5240, New Zealand Tel: 04 237 1170 branz.co.nz



Product

- Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are waterproofing membranes for nominally flat, pitched and curved roofs, gutters, parapets and decks. The products are installed as double layer systems on roofs with mineral chip or paint finish, and on decks with a mineral chip finish and protected by a raised deck system. On concrete roofs and decks, the products are installed as a single layer system and protected by paving slabs or screed.
- 1.2 The products are supplied as torch-on or self adhesive, reinforced, polymer-modified bitumen sheets in roll form.

Scope

- 2.1 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes have been appraised as roof and deck waterproofing membranes on buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with respect to building height and maximum floor plan areas; and,
 - with building structures designed and constructed to meet the requirements of the NZBC; and,
 - with roof and deck supporting structures of timber framing with substrates of plywood or fibre cement sheet; and,
 - · with substrates of suspended concrete slabs; and,
 - situated in NZS 3604 Wind Zones up to, and including, Extra High; and,
 - with decks that have a maximum area of 40 m² (refer to Paragraph 7.4).
- 2.2 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes have also been appraised for use as roof and deck waterproofing membranes on specifically designed buildings within the following scope:
 - with building structures designed and constructed to comply with the NZBC; and,
 - with roof and deck supporting structures of timber framing with substrates of plywood, cross laminated timber (CLT) or fibre cement sheet; and,
 - with substrates of suspended concrete slab; and,
 - subjected to maximum wind pressures (refer to Paragraph 8.1); and,
 - with the weathertightness design of all junctions being the subject of specific design by the
 designer. [Note: The design of these junctions has not been appraised by BRANZ and is outside
 the scope of this Appraisal.]

Readers are advised to check the validity of this Appraisal by referring to the Valid Appraisals listing on the BRANZ website, or by contacting BRANZ.







BRANZ Appraisal Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND
POLIBIT ROOF AND DECK
WATERPROOFING MEMBRANES

- 2.3 Roofs and decks waterproofed with Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes must be designed and constructed in accordance with the following limitations:
 - nominally flat, curved or pitched roofs, and decks constructed to drain water to gutters and drainage outlets complying with the NZBC; and,
 - · constructed to suitable falls (refer to Paragraphs 13.3 and 13.4); and,
 - · with no integral roof gardens; and,
 - · no steps in level within the deck area, except into gutters; and,
 - · no downpipes directly discharging to decks; and,
 - with the membranes on decks protected from physical damage and ultraviolet (UV) light by ceramic or stone tile finishes or timber, resting on approved pedestal support system or Soprema Kraitec Step rubber tiles.
- 2.4 The design and construction of the substrate and movement and control joints is specific to each building, and therefore is the responsibility of the building designer and building contractor and is outside the scope of this Appraisal.
- 2.5 The membranes must be installed by Equus Industries Ltd licensed and trained installers.

Building Regulations

New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:

Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years. Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes meet this requirement. See Paragraph 10.1. Performance B2.3.1 (c) 5 years. Alumicote, Enviroflect Aluminium, Colour-It, or Aquaseal meet this requirement. See Paragraph 10.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.1 and E2.3.2. Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes meet these requirements. See Paragraphs 13.1–13.9.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes meet this requirement.

Technical Specification

- 4.1 Materials supplied by Equus Industries Ltd are as follows:
 - Novaflex Membrane a 3 or 4 mm thick modified bitumen, torch-applied sheet waterproofing membrane with a sanded upper surface primarily used as a base layer in a double layer system.
 It is supplied in 1 m x 10 m rolls.
 - Novar-WS FLL Membrane a 4 mm thick modified bitumen, torch-applied sheet waterproofing
 membrane with an upper layer of mineral chip (black diamond) and a lower face of thermofusible polyolefinic film with a special root resistant reinforcement. It is supplied in 1 m x 10 m
 rolls
 - Nova-SK a 3 mm thick modified bitumen sheet waterproofing membrane with composite reinforcement. The upper surface is coated with thermo-fusible polyolefinic film or non-woven polypropylene. The lower surface and selvedge are protected with an anti-adhesive removable film. It is supplied in $1 \, \text{m} \times 10 \, \text{m}$ rolls.
 - Nova-SK Mineral a 4.5 kg/m² modified bitumen sheet, self-adhesive waterproofing membrane
 with composite reinforcement. The upper surface is coated with coloured slate chips. The lower
 surface and selvedge are protected with an anti-adhesive removable film. It is supplied in 1 m x
 10 m rolls.







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- Polibit Membrane a 3 or 4 mm thick modified bitumen, torch-applied sheet waterproofing
 membrane with an upper layer of either sand or mineral chip and a lower face of thermo-fusible
 polyolefinic film. The sand finished membrane can be used as a base layer of a double layer
 system, or as both layers in a double layer finish with UV protection. The mineral finish is used as
 a cap sheet in a double layer system. It is supplied in 1 m x 10 m rolls.
- Polibit H-P a 4 mm thick APP-modified bitumen, torch-applied sheet waterproofing membrane with an upper layer of black diamond mineral chip finish.
- Polibit S-P a 4 mm thick APP-modified bitumen, torch-applied sheet waterproofing membrane with an upper layer of coloured mineral chip finish.
- Nova-Per a perforated (199 holes/m²), modified bitumen sheet membrane, for use when
 partially bonded waterproofing system is required. This system allows equalising of pressure
 in order to avoid blisters, dimensional stability of the waterproofing system and reduction of
 possible fatigue in the completed membrane caused by cyclic movement or microcracking. It is
 supplied in 1 m x 30 m rolls.
- Novaglass™ Enviroflect a water-based, bituminous aluminium paint for protecting new and old modified bituminous waterproofing membranes.
- Novaglass™ Vernice Aluminio a water-based, bituminous aluminium coating to use in conjunction with new and old bitumen membranes
- Novaglass™ Easygum/Soprema Easy Flashing a water-based, bituminous coating to use in conjunction with new and old bitumen membranes.
- Sopradere Quick bitumen primer a solvent-based cutback bitumen primer for substrates prior to the installation of the membrane.
- Equus Peel & Stick Primer a rubber-based adhesive solvent solution which is specifically formulated to improve the adhesion of self-adhesive waterproofing membranes
- Aquadere bitumen primer a water-based cutback bitumen primer for substrates prior to the installation of the membrane.
- Alsan Mastic 2200 sealant a bituminous sealant for detailing membrane terminations and nenetrations.
- Alsan Flashing Quadro a single-component polyurethane resin for waterproofing roof details.
 It is compatible to mineral finished Novaglass waterproofing membranes.
- Permabase Dek a lightweight cement roof cover board for modified bitumen waterproofing membranes. It is supplied as a 2,400 mm x 1,200 mm x 9 mm thick board.
- Equus Fix Plus Pedestal an adjustable pedestal protection system.
- Equus Bitumen Fillets pre-formed bitumen angle fillets.

Handling and Storage

5.1 Handling and storage of all materials, whether on-site or off-site, is under the control of the Equus Industries Ltd licensed and trained installers. Dry storage must be provided for all products and the rolls of membrane must be stored in an upright position.

Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.







Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Design Information

General

- 7.1 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are for use on roofs, gutters, parapets and decks where an impervious waterproof membrane is required to prevent damage to building elements and adjoining areas. The products can be used on new or existing buildings. Equus Industries Ltd should be consulted as to the suitability of any existing substrates prior to using Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes.
- 7.2 The effective control of internal moisture must be considered at the design stage due to the impermeability of the membranes. Refer to the BRANZ Good Practice Guide: Membrane Roofing.
- 7.3 The 3 mm or 4 mm thick Novaflex, Nova-SK or Nova-SK Mineral membranes are designed for use on roofs, decks and gutters as the first layer of a double layer system, and all areas requiring detailing such as upstands, protrusions, rainwater heads and outlets. The Polibit membranes can be used as the top layer of a double layer system, or as a single layer system, see Table 1.
- 7.4 NZBC Acceptable Solution E2/AS1 limits the size of decks to 40 m², as covered by the scope of this Appraisal. Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are suitable for use on decks larger than 40 m². These decks are the subject of specific design and are outside the scope of this Appraisal.
- 7.5 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes, when used on decks, require a pedestal protection system such as the Equus Fix Plus pedestal system. Equus Industries Limited should be contacted for the best system to meet design requirements.

Structure

8.1 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes fully bonded double layer systems are suitable for use in areas subject to maximum wind pressures of 6 kPa Ultimate Limit State.

Substrates

Plywood

9.1 Plywood must be treated to H3 (CCA treated). LOSP treated plywood must not be used. Plywood must comply with NZBC Acceptable Solution E2/AS1, Paragraphs 8.5.3 and 8.5.5. Where specific design is used, (i.e. outside the scope of NZBC Acceptable Solution E2/AS1), the plywood thickness and fixing size may increase and centres may decrease to meet specific wind loadings. Timber framing must comply with NZS 3604, or where specific engineering design is used, the framing shall be of at least equivalent stiffness to the framing provisions of NZS 3604, or comply with the serviceability criteria of AS/NZS 1170. In all cases, framing must be provided so that the maximum span of the substrate as specified by the substrate manufacturer is met and all sheet edges are fully supported.

Cross Laminated Timber (CLT)

9.2 The CLT must installed in accordance with the manufacturers instruction.

Concrete

9.3 Concrete substrates must be to a specific engineering design meeting the requirements of the NZBC, such as concrete construction to NZS 3101.

Existing Construction

- 9.4 A thorough inspection of the substrate must be made to ensure it is in fit condition and does not contain any materials that will adversely affect the performance of the membrane.
- 9.5 Repairs must be undertaken, where applicable, to ensure the substrate is sound, the joints are sealed, and the flashings are sound. Plywood substrates must be checked for screw fixings, and if necessary refixed as for new plywood.







BRANZ Appraisal Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Table 1: Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membrane Systems

System	Area	Single Layer	Double Layer	Protection Required
Single layer sand finished system	Roof (concrete only)	4 mm top layer		Paving slabs or cement screeds
Double layer sand finished system	Roof		3 or 4 mm base layer with 3 or 4 mm top layer	Enviroflect Aluminium, Colour- It/Aquaseal or paving slabs
Double layer mineral finished system	Roof		3 or 4 mm base layer with 4 mm mineral chip top layer	Standard finish of material
Double layer mineral finished system	Deck		3 or 4 mm base layer with 4 mm mineral chip top layer	Ceramic or stone tile finishes or timber on a raised deck system
Single layer Mineral finished system	Deck (concrete only)	4 mm		Paving slabs on approved pedestals

Durability

Serviceable Life

- 10.1 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are expected to have a serviceable life of at least 15 years, provided they are designed, used, installed and maintained in accordance with this Appraisal and the Technical Literature.
- 10.2 Novaglass™ Enviroflect, or Novaglass™ Vernice Aluminio or Novaglass™ Easygum are expected to have a serviceable life of at least 5 years, provided they are used, installed and maintained in accordance with this Appraisal and the Technical Literature.

Chemical Resistance

10.3 Industrial air pollutants and windborne salt deposits should not significantly affect the durability of the membranes. However, the long term properties of the material may be affected by contact with petroleum-based products such as oils, greases and solvents.

Maintenance

- 11.1 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes, including any areas with a UV coating applied, must be regularly (at least annually) checked for damage, rubbish, debris or coating breakdown. Damage, such as small punctures and tears must be repaired and coatings reapplied as recommended by Equus Industries Ltd.
- 11.2 Special care must be taken when inspecting the membrane roof systems to ensure the continuing prevention of moisture ingress, and repairs must be undertaken where required.
- 11.3 Drainage outlets must be maintained to operate effectively.

Prevention of Fire Occurring

12.1 Separation or protection must be provided to Nova-SK, Novaflex and Polibit Roof Waterproofing Membranes from heat sources such as fireplaces, heating appliances, flues and chimneys. Part 7 of NZBC Verification Method C/VM1 and NZBC Acceptable Solution C/AS1, and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.







Appraisal No. 520 (201

Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

External Moisture

- 13.1 Roofs and decks must be designed and constructed to shed precipitated moisture. They must also take account of snowfalls in snow prone areas. A means of meeting code compliance with NZBC Clause E2.3.1 is given in the Technical Literature, which aligns with details in NZBC Acceptable Solution E2/AS1.
- 13.2 When installed in accordance with this Appraisal and the Technical Literature, Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes will prevent the penetration of water and will therefore meet code compliance with NZBC Clause E2.3.2. The membranes are impervious to water and will give a weathertight roof or deck.
- 13.3 Roof and deck falls must be built into the substrate and not created with mortar screeds applied over the membrane.
- 13.4 The minimum fall to roofs is 1 in 30, decks 1 in 40, concrete substrates 1 in 60 and gutters are 1 in 100. All falls must slope to an outlet. Inadequate falls will allow moisture to collect and increase the risk of deterioration of the membrane.
- 13.5 Allowance for deflection and settlement of the substrate must be made in the design of the roof to ensure falls are maintained and no ponding of water can occur.
- 13.6 Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are impermeable; therefore a means of dissipating construction moisture must be provided in the building design and construction to meet code compliance with NZBC Clause E2.3.6.
- 13.7 Drainage flanges must be used for any outlet and must be fitted with a grate or cage to reduce potential sources of blockages. An overflow must be provided where the roof does not drain to an external gutter or spouting.
- 13.8 Penetrations and upstands of the membranes must be raised above the level of any possible flooding caused by the blockage of roof drainage.
- 13.9 The design of details not covered by the Technical Literature is subject to specific weathertightness design and is outside the scope of this Appraisal.

Water Supplies

- 14.1 Water is not contaminated by Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes, and they comply with the provisions of NZBC G12.3.1. Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes have been tested against, and shown to comply with AS/ NZS 4020.
- 14.2 The first 25 mm of rainfall from a newly installed Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes roof must be discarded before drinking water collection starts. This is to remove residues which may have developed in the processes involved in the production of a Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes roof.
- 14.3 Though Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes have been shown to comply with AS/NZS 4020, it must be noted that all water collected off roof surfaces made from any material is considered to be non-potable due to possible contamination from other sources. Water collection in this way can only be considered potable if it has been passed through a suitable sterilization system. Sterilization systems such as this have not been assessed and are outside the scope of this Appraisal.







Appraisal No. 520 (2019) 23 May 2019

NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Installation Information

Installation Skill Level Requirement

- Installation must always be carried out in accordance with the Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes Technical Literature and this Appraisal, by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant Licence Class.
- Installation and finishing of components and accessories supplied by Equus Industries Ltd and its licensed and trained installers must be completed by licensed and trained installers, approved by Equus Industries Ltd.
- 15.3 Installation of the accessories supplied by the building contractor must be carried out in accordance with the Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes Technical Literature and this Appraisal, by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant Licence Class.

Preparation of Substrates

- Substrates must be dry, clean and stable before installation commences. Surfaces must be smooth and free from nibs, sharp edges, dust, dirt or other materials such as oil, grease or concrete formwork release agents. All surface defects must be filled to achieve an even and uniform surface.
- The relative humidity of concrete substrates must be 75% or less before membrane application. The concrete can be checked for dryness by using a hygrometer, as set out in BRANZ Bulletin No. 585.
- 16.3 The moisture content of the plywood and timber substructure must be a maximum of 20% and the plywood and fibre cement sheets must be dry at time of membrane application. This will generally require plywood sheets to be covered until just before the membrane is laid, to prevent rain wetting.
- Substrates must be primed with Sopradere Quick or Aquadere bitumen primer and left to dry [4-5 16.4 hours) before the membrane is installed.

Membrane Installation

- The membranes must be installed in accordance with the Technical Literature. 17.1
- All roof, deck and wall junctions must have a 20 mm x 20 mm wooden or bitumen fillet installed at the junction. Concrete substrate junctions must have a 20 mm x 20 mm cement mortar fillet installed. All external edges must be chamfered to a 5 mm radius to remove sharp edges. Alternatively, bitumen fillets of 25 mm x 25 mm can be used.
- 17.3 The membranes must be unrolled without tension onto the prepared substrate and allowed to 'relax' for at least 30 minutes prior to installation.
- 17.4 The membranes are installed from the lowest point and each layer is installed across the roof or deck falls allowing a 75 mm side overlap and a 150 mm end overlap. The cap sheet layer of a double layer system must be offset against the base sheet layer. Note: It is allowable to install the membranes following the roof or deck falls.

Inspections

- 18.1 Critical areas of inspection for waterproofing systems are:
 - · Construction of substrates, including crack control and installation of bond breakers and movement control joints.
 - Moisture content of the substrate prior to the application of the membrane.
 - · Acceptance of the substrate by the membrane installer prior to application of the membrane.
 - Installation of the membrane to Equus Industries Ltd instructions.







Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Health and Safety

19.1 Safe use and handling procedures for Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes are provided in the Technical Literature. The products must be used in conjunction with the relevant Material Safety Data Sheets for each membrane.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 20.1 The following is a summary of the testing and test reports on Nova-SK, Novaflex and Polibit Roof and Deck Waterproofing Membranes:
 - Instituto per le Tecnologie della Construczione (ITC) for tensile and elongation, tear resistance, flexibility at low temperature, resistance to static loading, resistance to dynamic loading, dimensional stability, flow resistance at elevated temperatures, adhesion of granules and watertightness.
 - ICITE for polyester reinforcement, coating mass, tensile strength, elongation, tear strength, dimensional stability, low temperature flexibility, heat resistance, sliding resistance, watertightness, static and dynamic indentation, fatigue cycling, peel resistance, air pressure and tensile strength of joints.
- 20.2 The above test methods and results have been reviewed by BRANZ and found to be satisfactory.

Other Investigations

- 21.1 A durability opinion has been provided by BRANZ technical experts.
- 21.2 Installation of the membranes has been assessed by BRANZ for practicability of installation and found to be satisfactory.
- 21.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

- 22.1 The manufacture of the membranes has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.
- 22.2 BRANZ has taken note of Technical Assessments and certifications covering quality aspects associated with the product.
- 22.3 The quality of the supply of products to the New Zealand market is the responsibility of Equus Industries Ltd.
- ${\tt 22.4} \quad {\tt Quality on-site is the responsibility of the Equus Industries Ltd licensed and trained installers.}$
- 22.5 Designers are responsible for the building design, and building contractors are responsible for the quality of construction of substrate systems in accordance with the instructions of Equus Industries Ltd and this Appraisal.
- 22.6 Building owners are responsible for the maintenance of the membrane systems in accordance with the instructions of Equus Industries Ltd and this Appraisal.







Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES

Sources of Information

- AS/NZS 1170:2002 Structural design actions.
- AS/NZS 2269:2012 Plywood structural.
- AS/NZS 4020:2018 Testing of products for use in contact with drinking water.
- BRANZ Good Practice Guide: Membrane Roofing, 2nd Edition, 2015.
- NZS 3101:2006 The design of concrete structures.
- NZS 3604:2011 Timber-framed buildings.
- Ministry of Business, Innovation and Employment Record of amendments Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

Amendments

Amendment No. 1 dated 26 March 2021

This Appraisal has been amended to update the Appraisal holder and update the technical specifications.

Amendment No. 2 dated 08 June 2023

This Appraisal has been amended to update the Appraisal title, manufacturer details and update the technical information.







BRANZ Appraisal Appraisal No. 520 (2019) 23 May 2019 NOVA-SK, NOVAFLEX AND POLIBIT ROOF AND DECK WATERPROOFING MEMBRANES



In the opinion of BRANZ, Nova-Sk, Novaflex and Polibit Roof And Deck Waterproofing Membranes are fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided they are used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to Equus Industries Ltd, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

- 1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
- 2. Equus Industries Ltd:
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
- 3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any quarantee or warranty offered by Equus Industries Ltd.
- Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
- BRANZ provides no certification, guarantee, indemnity or warranty, to Equus Industries Ltd or any third party.

For BRANZ

Chelydra Percy Chief Executive

Date of Issue: 23 May 2019



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Readers are advised to check the validity of this Appraisal by referring to the Valid Appraisals listing on the BRANZ website, or by contacting BRANZ.







3150 3 Pages

TECHNICAL DATA SHEET

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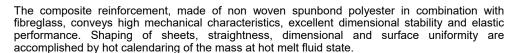
NOVA-SK

Self-adhesive waterproofing membrane

January 2024

DESCRIPTION:

NOVA-SK is a self-adhesive bitumen waterproofing membrane, industrially manufactured by impregnation of the reinforcement with the waterproofing compound based on distilled bitumen modified with thermoplastic elastomeric polymers of the latest generation, which gives the compound superior technical characteristics and adhesive characteristic.









The upper surface is coated with thermofusible polyolefinc film or non woven polypropylene and selvedge protected by anti-adhesive removable file for easy welding overlap. The lower surface is protected with an anti-adhesive removable film.

PACKAGING:

Properties	Testing Method	NOVA-SK
Roll length	EN 1848-1:1999	10 m
Roll width	EN 1848-1:1999	1 m

TECHNICAL DATA:

Properties	Norm	Value	Unit	Tolerance
Thickness	EN1849-1:1999	3	(mm)	± 0.2
Straightness	EN1848-1:1999	Passed	-	20 mm/10 m
Flexibility at low temperature (pliability)	EN1109:2013	-25	(°C)	≤
Heat flow resistance	EN1110:2010	90	(°C)	≥
Watertightness	EN1928-B:2000	200	(kPa)	≥
Watertightness	EN1928-B-2000	Passed	(kPa)	≥ 60 kPa/2h
Water vapour transmission properties	EN1931:2000	65.000	(µ)	-
Watertightness	EN1928-A W1:2000	Passed	(kPa)	≥ 2 kPa/2h
Properties	Norm	Value M.d.C.d.	Unit	Tolerance
Tensile properties: maximum tensile strength	EN12311-1:1999	500/450	(N/50mm)	-29%
Tensile properties: elongation at break	EN12311-1:1999	40/40	(%)	-15
Resistance to tearing (nail shank)	EN12310-1:1999	100/100	(N)	-30%
Dimensional stability	EN1107-1:1999	±0.3/±0.3	(%)	≤
Shear resistance of joints	EN12317-1:1999	500/450	(N/50mm)	-20%
Resistance to static puncture	EN12730-A:2015	NPD		
Resistance to impact	EN12691-A:2006	NPD		
External fire performance (note 1)	EN1187:2012/ EN13501-5:2005 +A1:2009	Froof	Class	-

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DATA SHEET Page 2 of 3

3 Pages

NOVA-SK

Self-adhesive waterproofing membrane

January 2024

TECHNICAL DATA continued:

Properties	Norm	Value M.d.C.d.	Unit	Tolerance	
Reaction to fire	EN11925-2:2010/ EN13501-12007 +A1:2009	Е	Class	-	
Root resistance	EN13948:2007	NPD			
Visual defects	EN1850-1:2001	Passed	-	-	
Durability: Flexibility at low temperature after artificial ageing	EN1296:2000/ EN1109:2013	-25	(°C)	+15	
Durability: Flow resistance at elevated temperature after artificial ageing	EN1296:2000/ EN1110:2010	NPD			
Durability: Watertightness after artificial ageing	EN1296:2000/ EN1928-B:2000	Passed	(kPa)	≥ 60	
Durability: Watertightness against chemicals	EN1296:2000/ EN1847:2009	NPD			
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Tensile strength	EN1296:2000/ EN12311-1:1999	NPD			
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Elongation	EN1296:2000/ EN12311-1:1999	NPD			
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Watertightness	EN1296:2000/ EN1298-A:2000	W1	Class	-	
Durability: Resistance to water vapour after artificial ageing	EN1296:2000/ EN1931:2000	Passed	(µ)	± 50 % v.i.	
Durability: Chemical resistance	EN1847:2009/ EN1931:2000	Passed	(μ)	± 50 % v.i.	

SCOPE OF USE:

NOVA-SK is a high performance membrane best suited for areas where open flame installation is not advisable. It is used as a self-adhesive base sheet in the Soprema NOVA-SK Roof & Deck Membrane System and the NOVATHERM Warm Roof System. The product is glued via a self-adhesive 'peel and stick' application and can be used over plywood, cross-laminated timber (CLT), and roof cover board substrates. Along with the NOVA-SK MINERAL or other approved cap sheet the membrane forms a two-layer waterproof membrane designed for roofs, decks, balconies, terraces and podiums. This membrane can also be used as a self-adhered vapour barrier in an Equus Warm Roof system.

It is suitable for new builds and refurbishments, residential and commercial construction. The excellent mechanical characteristics and high level thermo-dynamic stability make it suitable for any climate conditions, location or wind zone in New Zealand.

Suitable for other waterproofing applications with written approval by Equus Industries Ltd.

APPLICATION PROCEDURE:

The high self-adhesive properties of the waterproofing compound allow the application without flame, simply removing the lower anti-adhesive removable film. In particular situations, it could be applied with hot air generator.

The application of the membrane must be carried out in good weather conditions, when the temperature is over 10°C, and after the substrate has been adequately cleaned and prepared.

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NOVA-SK

Self-adhesive waterproofing membrane

January 2024

CONDITIONS OF USE:

Written approval is required for this membrane to be used on a substrate or in a waterproofing system not outlined in the standard Equus specifications. The membrane shall always be over laid with a bitumen membrane cap sheet, as out lined in an Equus standard specification.

The product must be installed by a Certified Equus Applicator. Verification of their status can be confirmed by a current applicator certificate or by contacting Equus Industries Ltd. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval by Equus Industries Ltd.

BUILDING CODE COMPLIANCE:

B2 Durability - B2.3.1 (b), NOVA-SK has a durability of at least 15 years, when installed with the correct specification, installation and maintenance. See CodeMark CMNZ70151, BRANZ Appraisal 520.

E2 External moisture - E2.3.1, E2.3.2, E2.3.7 Test data, together with in-service history in New Zealand and internationally, of the correctly installed NOVA-SK membrane over correctly designed and constructed substrates, show that the membrane successfully resists the ingress of moisture. See CodeMark CMNZ70151, BRANZ Appraisal 520.

F2 Hazardous building materials - F2.3.1 Well known experience with the type of materials used together with in-service history, show that NOVA-SK complies with this performance requirement. Refer to SDS at www.equus.nz

NORMS AND CERTIFICATIONS:

EN13707; EN13969 -1381 - 1381-CPR-415; EN13970 - 1211 - Tb51261/06e; EN13970 - 1211 - Ta51262/06e; EN13859-1 - 1211 - 51 -14-0018

SUPPORTING DOCUMENTATION:

The following additional documentation supports the compliance statements:

Title (type) Version		URL
CodeMark Certificate CMNZ70151	30 June 2023	https://equus.nz/content/reports/codemark-soprema-waterproofing-membranes.pdf
BRANZ Appraisal No. 520	8 June 2023	https://equus.nz/content/reports/branz-appraisal-nova-sk-520.pdf

STORAGE

The product is packed as standing rolls on wooden pallets wrapped with thermoshrinking protective hoods. Rolls must be stored in an upright position, without stacking the pallets to avoid deformations which can compromise the correct application of the membrane. The product must be stored indoors, protected from heat and frost.

WARNINGS AND BANS:

n 26 of the Building Act 2004? No	Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	
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MANUFACTURERS CONTACT DETAILS:

Manufacture location	Italy
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website www.soprema.com.au	
Manufacturer email	info@soprema.com.au
Manufacturer phone number +61 3 9221 6230	
Manufacturer NZBN	9429050312962

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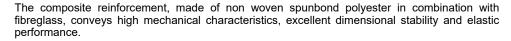
NOVA-SK MINERAL

Self-adhesive waterproofing membrane cap sheet

January 2024

DESCRIPTION:

NOVA-SK MINERAL is a self-adhesive bitumen waterproofing membrane, industrially manufactured by impregnation of the reinforcement with the waterproofing compound based on distilled bitumen modified with thermoplastic elastomeric polymers of the latest generation, which gives the compound superior technical characteristics and adhesive characteristic.









Shaping of sheets, straightness, dimensional and surface uniformity are accomplished by hot calendaring of the mass at hot melt fluid state. It is a self-protected membrane, the upper surface is coated with coloured slate chips and selvedge protected by an anti-adhesive removable film.

PACKAGING:

Properties	Testing Method	NOVA-SK MINERAL
Roll length	EN 1848-1:1999	10 m
Roll width	EN 1848-1:1999	1 m

TECHNICAL DATA:

Properties	Norm	Value	Unit	Tolerance
Thickness	EN1849-1:1999	4.5	(kg/m²)	± 10%
Straightness	EN1848-1:1999	Passed	-	20 mm/10 m
Flexibility at low temperature (pliability)	EN1109:2013	-25	(°C)	≤
Heat flow resistance	EN1110:2010	90	(°C)	≥
Watertightness	EN1928-B:2000	200	(kPa)	≥
Watertightness	EN1928-B-2000	Passed	(kPa)	2 kPa/2h
Water vapour transmission properties	EN1931:2000	20.000	(µ)	-
Properties	Norm	Value M.d.C.d.	Unit	Tolerance
Tensile properties: maximum tensile strength	EN12311-1:1999	500/300	(N/50mm)	-20%
Tensile properties: elongation at break	EN12311-1:1999	30/30	(%)	-15
Resistance to tearing (nail shank)	EN12310-1:1999	100/100	(N)	-30%
Dimensional stability	EN1107-1:1999	±0.3/±0.3	(%)	≤
Shear resistance of joints	EN12317-1:1999	500/300	(N/50mm)	-20%
Resistance to static puncture	EN12730-A:2015	NPD		
Resistance to impact	EN12691-A:2006	NPD		
External fire performance (note 1)	EN1187:2012/ EN13501-5:2005 +A1:2009	Froof	Class	-
Reaction to fire	EN11925-2:2010/ EN13501-1:2007 +A1:2009	Е	Class	-

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NOVA-SK MINERAL

Self-adhesive waterproofing membrane cap sheet

January 2024

TECHNICAL DATA continued:

Properties	Norm	Value M.d.C.d.	Unit	Tolerance
Root resistance	EN13948:2007	NPD		
Visual defects	EN1850-1:2001	Passed	=	-
Determination of adhesion of granules (loss)	EN1297:2004	Passed	(%)	< 30
Durability: Flexibility at low temperature after artificial ageing	EN1296:2000/ EN1109:2013	-25	(°C)	+15
Durability: Flow resistance at elevated temperature after artificial ageing	EN1296:2000/ EN1110:2010	NPD		
Durability: Watertightness after artificial ageing	EN1296:2000/ EN1928-B:2000	Passed	(kPa)	≥ 60
Durability: Watertightness against chemicals	EN1296:2000/ EN1847:2009	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Tensile strength	EN1296:2000/ EN12311-1:1999	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Elongation	EN1296:2000/ EN12311-1:1999	NPD		
Artificial ageing by long term exposure to the combination of UV radiation and elevated temperature and heat: Watertightness	EN1296:2000/ EN1298-A:2000	W1	Class	-

SCOPE OF USE:

NOVA-SK MINERAL is a high performance membrance best suited for areas where open flame installation is not advisable. It is used as a self-adhesive cap sheet in the SOPREMA NOVA-SK Roof & Deck Membrane System and the NOVATHERM Warm Roof System. The product is glued via a self-adhesive 'peel and stick' application and can be used over plywood, cross-laminated timber (CLT), and roof cover board substrates. Along with the NOVA-SK base sheet the membrane forms a two-layer waterproof membrane designed for roofs, decks, balconies, terraces and podiums.

It is suitable for new builds and refurbishments, residential and commercial construction. The excellent mechanical characteristics and high level thermo-dynamic stability make it suitable for any climate conditions, location or wind zone in New Zealand.

Suitable for other waterproofing applications with written approval by Equus Industries Ltd.

APPLICATION PROCEDURE:

The high self-adhesive properties of the waterproofing compound allow the application without flame, simply removing the lower anti-adhesive removable film. In particular situations, it could be applied with hot air generator.

The application of the membrane must be carried out in good weather conditions, when the temperature is over 10°C, and after the substrate has been adequately cleaned and prepared.

CONDITIONS OF USE:

Written approval is required for this membrane to be used on a substrate or in a waterproofing system not outlined in the standard Equus specifications. The membrane shall always be over laid with a bitumen membrane cap sheet, as out lined in an Equus standard specification.

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NOVA-SK MINERAL

Self-adhesive waterproofing membrane cap sheet

January 2024

The product must be installed by a Certified Equus Applicator. Verification of their status can be confirmed by a current applicator certificate or by contacting Equus Industries Ltd. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval by Equus Industries Ltd.

BUILDING CODE COMPLIANCE:

B2 Durability - B2.3.1 (b), NOVA-SK MINERAL has a durability of at least 15 years, when installed with the correct specification, installation and maintenance. See CodeMark CMNZ70151, BRANZ Appraisal 520.

E2 External moisture - E2.3.1, E2.3.2, E2.3.7 Test data, together with in-service history in New Zealand and internationally, of the correctly installed NOVA-SK MINERAL membrane over correctly designed and constructed substrates, show that the membrane successfully resists the ingress of moisture. See CodeMark CMNZ70151, BRANZ Appraisal 520.

F2 Hazardous building materials - F2.3.1 Well known experience with the type of materials used together with in-service history, show that NOVA-SK MINERAL complies with this performance requirement. Refer to SDS at www.equus.nz

NORMS AND CERTIFICATIONS:

EN13707; EN13969 -1381 - 1381-CPR-415; EN13859-1 - 1211 - 51-18-0025

SUPPORTING DOCUMENTATION:

The following additional documentation supports the compliance statements:

Title (type)	Version	URL
CodeMark Certificate CMNZ70151	30 June 2023	https://equus.nz/content/reports/codemark-soprema-waterproofing-membranes.pdf
BRANZ Appraisal No. 520	8 June 2023	https://equus.nz/content/reports/branz-appraisal-nova-sk-520.pdf

STORAGE:

The product is packed as standing rolls on wooden pallets wrapped with thermoshrinking protective hoods. Rolls must be stored in an upright position, without stacking the pallets to avoid deformations which can compromise the correct application of the membrane. The product must be stored indoors, protected from heat and frost.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
	l l

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Italy
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website	www.soprema.com.au
Manufacturer email	info@soprema.com.au
Manufacturer phone number	+61 3 9221 6230
Manufacturer NZBN	9429050312962

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COLPHENE 3000

Self-adhesive waterproofing membrane

February 2024

DESCRIPTION:

COLPHENE 3000 is a self-adhesive waterproofing membrane composed of SBS modified bitumen and a tri-laminated woven polyethylene facer. The underface is covered with silicone release film.



COLPHENE 3000 is designed for foundation walls and other below grade vertical surfaces, as well as a vapour barrier for warm and green roof systems.

This product can be used on most building surfaces, such as masonry, concrete and wood.

PACKAGING:

Specifications	COLPHENE 300
Thickness	1.5 mm
Dimensions	1 x 18.7 m
Weight	1.5 kg/m²
Selvage width	75 mm
Surface	Tri-laminated woven polyethylene
Underface	Silicone release film
Qty/Pallet	30

TECHNICAL DATA:

Properties	Standards	COLPHENE 3000
Tensile strength, MD/XD	ASTM D5147	11.3/15.4 kN/m
Tensile strength, MD/XD	ASTM D412	11.2/13.1 MPa
Ultimate elongation, MD/XD	ASTM D412	88/55 %
Ultimate elongation, MD/XD	ASTM D5147	40/25 %
Elongation of rubberised asphalt	ASTM D5147	> 1000 %
Flexibility at cold temperature	ASTM D5147	-35°C
Dynamic puncture	ASTM E154	747 N
Static puncture	ASTM D5602	400 N
Tear resistance, MD/XD	ASTM D5601	375/400 N
Lap adhesion	ASTM D1876	2000 N/m
Water absorption	ASTM D5147	0.1 % max
Peel resistance	ASTM D903	3500 N/m
Water vapour permeability	ASTM E96 (Procedure B)	< 2.5 ng/Pa·s·m² (< 0.04 perm)All values are nominal)
Crack cycling at –32°C, 100 cycles	ASTM C836	Unaffected
Resistance to hydrostatic head	ASTM D5385	Minimum 114 m
Adhesion to strength to concrete -not primed -combined with primer	ASTM D1000	560 N/m 1650 N/m

(All values are nominal)





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TECHNICAL DATA SHEET

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COLPHENE 3000

Self-adhesive waterproofing membrane

February 2024

SCOPE OF USE:

COLPHENE 3000 is used as waterproofing membrane for foundation walls and other below ground vertical surfaces (up to 3 m deep) with low risk of hydrostatic water pressure against concrete and masonry substrates. The membrane can be overlaid with an Equus approved drainage mat for protection.

COLPHENE 3000 can also be used as a vapour barrier in an Equus Soprema Warm Roof system where specified by the Condensation Risk Analysis (CRA). It is suitable for new builds and refurbishments, residential and commercial construction, in any location in New Zealand.

Suitable for other waterproofing applications with written approval by Equus Industries Ltd.

SURFACE PREPARATION:

The use of Equus Peel and Stick Primer for self-adhesive membranes is required before the installation of COLPHENE 3000 membrane.

The substrate should be clean, sound, dry and free of loose materials, grease and any contaminants, which may compromise the performance of the product.

INSTALLATION:

SELF-ADHESIVE COLPHENE 3000 membrane must be adhered to substrate by peeling off the silicone release film. Side lap joints must be a minimum of 75 mm and end lap joints must be a minimum of 150 mm. Once installed, pressure must be applied over the whole surface using a membrane roller to ensure good contact with the substrate. The upper most edge of the membrane shall be mechanically fastened using termination bars and sealed with a compatible SOPREMA sealant. Contact Equus for suitable sealant.

Application temperatures: Winter grade: -10 to 10°C, Summer grade: 10 to 50°C **UV exposure:** up to 60 days

RESTRICTION:

Concrete must be cured a minimum of fourteen (14) days and an adhesion test is recommended before membrane application. For complete information on product installation, please consult your Equus Consultant.

CONDITION OF USE:

COLPHENE 3000 shall not be used on surfaces over 3 m below ground or in areas with high hydrostatic water pressure, in this case COLPHENE BSW waterproofing shall be used.

Written approval is required for this membrane to be used on a substrate or in a waterproofing system not outlined in the standard Equus specifications.

The product must be installed by a Certified Equus Applicator. Verification of their status can be confirmed by a current applicator certificate or by contacting Equus Industries Ltd. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval by Equus Industries Ltd.

BUILDING CODE COMPLIANCE:

B2 Durability - B2.3.1 (a,b), COLPHENE 3000 has a durability of at least 50 years where used underground and at least 15 years where used above ground, when installed with the correct specification, installation and maintenance. BRANZ Appraisal 1037.

E2 External moisture - E2.3.2, E2.3.3, E2.3.7 Test data, together with in-service history in New Zealand and internationally, of the correctly installed COLPHENE 3000 membrane over correctly designed and constructed substrates, show that the membrane successfully resists the ingress of moisture. See BRANZ Appraisal 1037.

F2 Hazardous building materials - F2.3.1 Well known experience with the type of materials used together with in-service history, show that COLPHENE 3000 complies with this performance requirement. Refer to SDS at www.equus.nz

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COLPHENE 3000

Self-adhesive waterproofing membrane

February 2024

SUPPORTING DOCUMENTATION:

Title (type)	Version	URL
BRANZ Appraisal No. 1037	22 April 2022	https://www.equus.nz/content/reports/branz-appraisal-colphene-1037.pdf

STORAGE AND HANDLING:

Rolls must be stored upright, with the selvedge side on top. If the product is stored outdoors, cover them with an opaque protective cover after removal of the delivery packaging.

HEALTH AND SAFETY:

The product does not contain any substance which is likely to be detrimental to your health or the environment and complies with generally admitted Health and Safety Requirements. For more information, please refer to the relevant Safety Data Sheet.

WARNINGS AND BANS:

Is	the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Canada
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website	www.soprema.com.au
Manufacturer email	info@soprema.com.au
Manufacturer phone number	+61 3 9221 6230
Manufacturer NZBN	9429050312962

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EUROTHANE SILVER

Insulation board

January 2024

DESCRIPTION:

Eurothane Silver is an insulation board with a core of rigid polyisocyanurate foam, faced on both sides with a gastight multi-layered complex.



PACKAGING:

Dimensions	Eurothane Silver
Width	1200 mm
Length	600 mm, 1000 mm and 2500 mm
Thickness	30 mm - 60 mm in stock 70-100 mm on request

PRODUCTIVE R-VALUE:

Size (mm)	R-Value
50	2.25
60	2.70
81	3.65
90	4.05
100	4.50
120	5.45

TECHNICAL DATA:

Technical Characteristics	Eurothane Silver
Thermal conductivity	λ_D -value according to EN 12667: 0,022 W/mK
Core volume weight	± 30 kg/m ³
Mechanical performance - Compressive strength with 10% deformation: - Performance under the influence of an equally distributed load: - Transformation under the influence of a load:	CS(10/Y)150 according to EN 826: ≥ 150 kPa (1.5 kg/cm²) UEAtc class C DLT(2)5 according to EN 1605: 40 kPa, at 70°C during 168 hours: ≤ 5%
Vapour diffusion resistance number μ of the PIR <i>foam</i>	50-100
Facing	Gastight multi-layered complex
Tensile strength perpendicular to surface	TR80 according to EN 1607 ≥80 kPa
Long-term water absorption WL(T)2 according to EN 12087	< 2%
Fire behaviour	- A1 according to RD 19/12/1997 - Euroclass B s2 d0 (end use steel deck) - Euroclass F according to EN 13501-1 - Class 1 according to BS 476 Part 7
Dimensional stability DS(TH)8 according to EN 1604 - Humidity text 48 hours: - Change in length: - Change in width: - Change in thickness:	70°C, 90% RH ≤ 2% ≤ 2% ≤ 6%

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EUROTHANE SILVER

Insulation board

January 2024

CERTIFICATES AND STANDARDS:

EN 13165

The production of these boards is certified according to ISO 90001:2000

SCOPE OF USE:

Eurothane Silver is used in Equus SOPREMA Warm Roof and Deck systems, installed over a vapour barrier and underneath a waterproofing membrane system. Eurothane Silver boards are either mechanically fastened, or adhered with an approved PU Foam to the roofing substrate and can be overlaid with a roof cover board. Eurothane Silver is available in flat or tapered boards for design flexibility.

It is suitable for new builds and refurbishments, residential and commercial construction, in any location or wind zone in New Zealand (determined by project specific wind uplift calculations).

Suitable for other applications with written approval by Equus Industries Ltd.

CONDITIONS OF USE:

Eurothane Silver must be covered by a specified waterproofing membrane system. Written approval is required for this product to be in a system not outlined in the standard Equus specifications.

The product must be installed by a Certified Equus Applicator. Verification of their status can be confirmed by a current applicator certificate or by contacting Equus Industries Ltd. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval by Equus Industries Ltd.

BUILDING CODE COMPLIANCE:

B2 Durability - B2.3.1 (b), Eurothane Silver has a durability of at least 15 years when installed with the correct specification, installation and maintenance. BRANZ Appraisal No. 1169.

E3 Internal moisture - E3.3.1 Eurothane Silver provides habitable buildings with adequate thermal resistance and R-values that are equal to or above those specified in E3/AS1. See BRANZ Appraisal No. 1169.

F2 Hazardous building materials - F2.3.1 Well known experience with the type of materials used together with in-service history, show that Eurothane Silver complies with this performance requirement. Refer to SDS at www.equus.nz

H1 Energy Efficiency - H1.3.1 (a) Eurothane Silver provides the building with adequate thermal resistance and R-values that are equal to or above those specified in H1/AS1 and H1/AS2. See BRANZ Appraisal No. 1169.

SUPPORTING DOCUMENTATION:

Title (type)	Version	URL
BRANZ Appraisal No. 1169	02 November 2022	https://www.equus.nz/content/reports/branz-appraisal-warmroof-1169.pdf

STORAGE

Do not throw, use shockproof transport. Must be stored in dry conditions and protected from direct weathering.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

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EUROTHANE SILVER

Insulation board

January 2024

MANUFACTURERS CONTACT DETAILS:

Manufacture location	
Legal and trading name of manufacturer	
Manufacturer address for service	
Manufacturer website	
Manufacturer email	
Manufacturer phone number	
Manufacturer NZBN	

Title (type)	Version	URL
BRANZ Appraisal No. 1169	02 November 2022	https://www.equus.nz/content/reports/branz-appraisal-warmroof-1169.pdf

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

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PRODUCT

DUO 'EASY FOAM'



Description:

Duo 'Easy Foam' is a rapid curing, gun grade polyurethane adhesive, specially developed to bond various typed of insulation materials on flat roofs.

With 'Easy Foam' it is convenient to bond different types of insulation (PUR, PIR, Rockwool, XPS and EPS) to various types of surfaces:

- Bitumen vapour barrier
- Existing bituminous waterproofing membranes
- Concrete

Surface Preparation:

The substrate shall be free from dust and grease. It shall be dry and solid. If required, moistening the substrate will speed up the curing time.

Application:

- Shake the tin thoroughly for at least 15 seconds.
- Screw the tin onto the 'Duo Easy Gun' and apply at least 3 vertical beads of foam onto the surface.
- Apply at least 4 beads of foam in corners and at roof edges (see installation guidelines). Can also be applied in serpentine pattern (max 25cm between
- Press the insulation panels softly onto the beads.
- Ready to be treated after 30 minutes. Full strength after 3 hours.
- Application temperature for the tin: +10°C to +30°C.
- Always keep the tin upright for the most efficient application.

Technical Data:

Characteristics Values Fire class **B1DIN 4102**

Polyurethane pre-polymer Base

Curing Moisture curing

Type Glue

Tack free After +/- 10 minutes After +/- 30 minutes Initial strength Full strength After +/- 3 hours

Consumption +/- 10 to 11m2 of adhesive per tin

Thermal

40 m W/M.K conductivity

Compression

resistance 30kPa (at 10% deformation)

Tensile strength 100 kPa Elongation at break 15% Shear 80kPa

Application

Surrounding: 0°C to +35°C temperature

Tin: +10°C to +30°C

Temperature

resistance Prolonged: -40°C until +90°C Brief: -40°C until+130°C Shelf life 9 months (store cool, dry and

upright)

Precautions:

- Always read the safety precautions mentioned on the tin before use.
- Use only in well-ventilated areas.
- No smoking. Protect eyes and wear suitable protective clothing and gloves.
- Protect surrounding surfaces from splashes.
- Superfluous foam can be removed with 'Duo Easy Cleaner'.
- Cured foam has to be removed mechanically.
- Safety precautions: See material safety data sheet.

Step 1





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Website: www.equus.nz

March 2022





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2 Pages

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ALSAN MASTIC 2200

Flexible mastic

March 2024

DESCRIPTION:

Flexible mastic based on bitumen and synthetic rubber. Used for sealing small tears, cracks, joints and local repairs.









TECHNICAL DATA:

Properties	ALSAN MASTIC 2200
Composition	Bitumen and synthetic rubber
Temperature resistance	-20/+80°C
Application temperature	+5/+35°C
Consumption	15-20 m/cartridge

PACKING AND STORAGE:

310 ml cartridge.

20 cartridges/box.

Minimum 12 months in original unopened packaging, stored in a dry and cool place, protected from sunlight at a temperature between +10 and +25°C.

INSTALLATION:

ALSAN MASTIC 2200 is applied with a gun on a clean and dust-free surface. It has excellent adhesion to most materials without prior treatment with a primer. It can be applied on a slightly damp surface.

Apply ALSAN MASTIC 2200 so that it is in full contact and has good adhesion to the edges of the joint. The curing time is 4 to 24 hours depending on the conditions and dimensions of the joint.

CLEANING TOOLS:

White spirit.

HEALTH AND SAFETY:

For more information, please refer to the relevant safety data sheet.

QUALITY, ENVIRONMENT AND SAFETY MANAGEMENT:

SOPREMA always recognises as a high level of importance, the quality of the products, the environment and safety. For this reason, we operate independently monitored Quality and Environment Assurance Systems in line with EN ISO 9001 and EN ISO 14001

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

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ALSAN MASTIC 2200

Flexible mastic

March 2024

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Belgium
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website	www.soprema.com.au
Manufacturer email	info@soprema.com.au
Manufacturer phone number	+61 3 9221 6230
Manufacturer NZBN	9429050312962

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1 Pages

TECHNICAL DATA SHEET

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EQUUS PEEL AND STICK PRIMER

Primer for self-adhesive waterproofing membranes

January 2024

DESCRIPTION:

Equus Peel and Stick Primer is a rubber based adhesive solvent solution which is specifically formulated to provide excellent adhesion with the Equus self-adhesive Waterproofing Membranes under many kinds of surface conditions. Equus Peel and Stick Primer is an integral part of Equus self-adhesive Waterproofing Systems and sufficient primer must be used on dry surfaces to condition them to be dust free so that the substrate is suitable for the self-adhesive application of Equus Waterproofing Membranes.







USES:

Used to prime all structural concrete, masonry, or wood surfaces on which waterproofing membranes will be used. Designed to be used on applications down to -4° C.

May be used on horizontal surfaces, but remains tacky, and precautions must be used in this application to prevent contamination of the Primer surface prior to installation of the membrane.

Must be used on all concrete block and brick wall conditions.

Do not use on EPS sheet or block. In this case use Equus EPS Primer.

APPLICATION:

Equus Peel and Stick Primer may be applied with roller, brush or spray. A roller with a heavy nap should be used to carry sufficient material to the area being primed.

Apply all Equus Peel and Stick Primer to a clean, dry, dust free and frost free surface at a coverage of approximately 6-8 sqm/litre. The primer should be spread sufficiently to avoid areas of excess material. Areas of excess material will lengthen the drying time on the application of the primer.

Equus Peel and Stick Primer is to dry a minimum of one hour - may dry quicker due to drying conditions, such as wind and warmth.

This product is red in colour and will remain tacky when dry. The application of primer should be limited to what can be covered with Waterproofing Membrane in one working day. Any areas not covered with membrane during the day must be reprimed - be sure to cover all open containers when not applying primer, as the primer is volatile.

SAFETY, STORAGE AND HANDLING:

Equus Peel and Stick Primer vapours are flammable. User should review the Safety Data Sheet (SDS) for this product and follow safety instructions listed therein.

TRANSPORT CLASSIFICATION:

IMDG Class 3.1 UN No. 1294

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DUO C-PROFILE

Aluminium bar for terminating waterproofing membranes

January 2024

DESCRIPTION:

The C-PROFILE is a pre-manufactured profile that terminates the waterproofing membrane at the wall in a professional and watertight, wind-peel resistant manner.

The C-Profile is used at concrete or wooden walls and curbs.

ADVANTAGES:

- Increases the durability of the waterproofing system.
- Increases the bonding of the waterproofing to the wall or curb.
- Wind-peel resistant.
- Corrosion resistant.
- Continuous quality.
- Provides an aesthetical, straight finishing.
- Provides a dripping point off the wall.





TECHNICAL DATA:

Technical Characteristics	C-PROFILE	
Material	Extruded aluminium profile (Al Mg Si 0.5 F22 quality	
Tensile strength	215 N/mm ²	
Yield point	160 N/mm ²	
Elongation	10%	
Hardness	70 brinell	
Length	2500 mm	
Width	50 mm	
Colour	Metalic	
Characteristics tested according to German DIN 1748 standard.		

INSTALLATION:

- The waterproofing is installed according to manufacturers details.
- The C-PROFILE is fastened at the edge of the waterproofing membrane into the wall.
- The C-PROFILE covers the membrane with 2/3 of its total width of 50 mm. The rest of the profile protrudes above the membrane.
- The space created at the top of the C-PROFILE is filled with a sealant compatible to the wall's material, bitumen and aluminium. SOPREMA recommends ALSAN MASTIC 2200 sealant.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

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DUO C-PROFILE

Aluminium bar for terminating waterproofing membranes

January 2024

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Belgium
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website	www.soprema.com.au
Manufacturer email	info@soprema.com.au
Manufacturer phone number	+61 3 9221 6230
Manufacturer NZBN	9429050312962

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841 1 page PRODUCT DATA SHEET

Roof Edge Profile Classic Plus

Description:

The Classic Plus roof edge profile is a pre-manufactured profile that terminates the waterproofing membrane at the highest edge of the roof in a professional, watertight and wind-uplift resistant manner.

The profile is used on top of roof edge curbs of wooden and concrete flat roofs.

Technical Characteristics:

Material: Aluminium Length per profile: 2500 mm Width (visible, outside): 110 mm Fastening zone 45 mm

Dripping edge: 15mm from wall

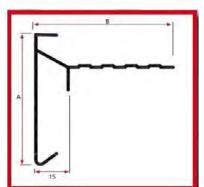
Advantages:

- Strong, stable and durable profile that increases the durability of the waterproofing system.
- Increases the bonding of the waterproofing to the edge of the roof deck.
- Special corner design to prevent penetration by horizontal driven rain.
- Available with connection plates, internal and external premanufactured welded corners.
- Wind uplift resistant.
- Corrosion resistant.
- Continuous aesthetical finish.
- Provides a dripping point of 15 mm off the wall to prevent water stains to the wall.



Installation:

- The waterproofing cap sheet is installed on the top of the roof edge curb.
- The profile is fastened at the roof edge on top of the cap sheet
- The profile and its fixings are covered by another piece of cap sheet.
- Always refer to the manufacturer's detail drawing.



Туре	Α	В
110/60	110	60

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June 2021





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EASY FLASHING

Liquid waterproofing membrane

January 2024

DESCRIPTION:

EASY FLASHING is a thixotropic waterproofing coating, formulated with bitumen in water emulsion, selected elastomeric resins and special additives, multipurpose with high adhesiveness.



ADVANTAGES:

- · Excellent elasticity
- · Waterproofs and protects from atmospheric agents and from UV rays
- · Resistance against corrosive action of many acids
- · Encourages the cold laying
- · Perfect grip on different materials
- · Compatible with cementitious adhesives
- · Long-lasting product
- Odourless and non-flammable product
- · Non-toxic, solvent free
- · Does not crack at low temperatures and does not pour at high temperatures

APPLICATION:

Operating conditions

It is recommended to apply the product with an ambient temperature not lower than +5°C and when there are no climatic conditions of fog, rain and frost, avoiding extreme situations of cold and heat.

Surface preparation

Before applying the product, make sure that the non-coherent parts, or non-adherent parts, paints, rust, dust, disarming oils are removed and carefully clean surfaces that need to be solid and dry. The efficiency of the water outflow must be ascertained (slopes, positioning and size of the drains). This product can also be applied on wet surfaces, but it is necessary there is no water stagnation.

Preparation

Mix the product thoroughly until the mixture is fully homogenous before using

Application

EASY FLASHING can be applied by roller, brush, spray, spatula or notched squeegee.

It is generally applied in two coats. To facilitate the application on large surfaces it is advisable to dilute up to a maximum of 10% water. Apply the second coat fresh on fresh if the first has been reinforced, otherwise after complete drying of the first, after 24-48 hours. On surfaces larger than 10 sqm or stressed supports, we recommend reinforcing EASY FLASHING with the special Alsan Voile-P fabric embedded in the first still fresh coat.

Cleaning tools

After use, clean the tools with water and, if the product has dried, it is advisable to remove it with hot water or the most common synthetic thinners.

CONSUMPTION:

Between 0.6-0.9 kg/sqm per coat, the consumption of the product varies according to the substrate and thickness desired. To obtain a dried film of 1 mm, the quantity of product used will be about 1.5 kg/sqm. Approx. 2 kg/sqm if the appropriate Alsan Voile-P reinforcement fabric is used.

Between 400-700 g/sqm if used as an adhesive for spot bonding of insulation panels.

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EASY FLASHING

Liquid waterproofing membrane

January 2024

PACKAGING:

EASY FLASHING		
Packaging	- 310 ml plastic cartridges in boxes of 24 pieces - 5, 20 kg metal cans	
Colour	Black (when dried)	
Storage		

TECHNICAL DATA:

Properties	Test Method	Performance
Physical form	-	Pasta Tixotropica
Dry residue at 130°C	EN ISO 3251	53-59%
Viscosity Brookfield (at 20°C, Impeller n. 6; 10 rpm_	EN ISO 3219	70.000 cP (± 14.000)
Specific weight at 20°C	EN ISO 2811-1	1.21 kg/l (±0.04)
pH (at 20°C)	-	8.3÷9.0
Flexibility at low temperatures	EN 15813	-30 °C
Dimensional stability at high temperatures	EN 15818	+150 °C
External drying time	-	4 hours
Drying time for finishing covering	-	24÷48 hours*

^{*} Values recorded at a temperature of 23°C and 50% humidity. The data expressed may vary depending on thickness of the product applied and the specific conditions of the site; temperature, humidity, ventilation, absorbency of the bottom.

Performance Characteristic (UNI EN 1504 - C Coverings - Principles: PI MC IR)	Test Method	Performance
Permeability to CO ₂	EN 1062-6	S _D >50 m
Water vapour permeability	EN ISO 7783	Class I (S _D <5 m)
Liquid water permeability	EN 1062-3	W < 0.1 kg/sqm x h ^{0.5}
Tensile bond strength (by pull off)	EN 1542	≥1 N/mm²

^{*} Values recorded at a temperature of 23°C and 50% humidity. The data expressed may vary depending on thickness of the product applied and the specific conditions of the site; temperature, humidity, ventilation, absorbency of the bottom.

Performance EN 14891 Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesive	Requirements EN 14891	Product Performance
Initial tensile adhesion	>0.5 N/mm ²	Passed
Tensile adhesion after water contact	>0.5 N/mm ²	Passed
Tensile adhesion after heat aging	>0.5 N/mm ²	Passed
Tensile adhesion after freeze/thaw cycles	>0.5 N/mm ²	Passed
Tensile adhesion after contact with time lime water	>0.5 N/mm ²	Passed
Water impermeability	No penetration	Waterproof
Crack Bridging Ability (at 20°C)	>0.75 mm	Passed
CLASSIFICATION ACCORDING TO EN 14891	Class DM 02	Waterproof product applied in dispersed liquid with improved crack bridging capacity at low temperature (-20°C)

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EASY FLASHING

Liquid waterproofing membrane

January 2024

SCOPE OF USE:

EASY FLASHING serves as a practical solution for installers facing challenges in applying polymer-bitumen membranes or dealing with restrictions on open flames. Its versatility allows for both vertical and horizontal applications. Installers can use EASY FLASHING for waterproofing foundation walls, foundations, and laying insulation panels. The liquid membrane is effective for quick local repairs and restores waterproofing on balconies and terraces without pavement destruction.

EASY FLASHING provides a reliable base for subsequent tile bonding, improving grip with cement-based adhesives. When diluted at 50%, EASY FLASHING functions as a dust-proof primer. With excellent adhesion on various surfaces, it is suitable for bituminous membranes (with sand or self protected with slates), concrete, metal, fibrocement, plasterboard, wood, ceramic pavements, and glass.

Suitable for new builds and refurbishments, residential and commercial construction, in any location in New Zealand. Suitable for other applications with written approval by Equus Industries Ltd.

CONDITIONS OF USE:

- It is recommended to apply the product with an ambient temperature no lower than +5°C and when there are no weather
 conditions of fog, rain and frost, avoiding in any case extreme situations of cold and heat and high humidity.
- Particular attention should be paid to the application of the product on some new bituminous surfaces so as to avoid the risk that hydrocarbons still present in the support may compromise the correct adhesion of the product.
- Where extra protection is required or in applications between different materials, structural joints, or in the presence of important
 cracks it is recommended to use fibreglass reinforcement impregnating it completely in the first coat still fresh.
- Do not exceed the quantity and drying times recommended for each coat to guarantee the correct drying of the product in all its
 thickness
- Temperatures over 35°C could accelerate the drying of the product, compromising its workability.
- In the case of waterproofing walls against the ground with EASY FLASHING, suitable mechanical protection must be provided mainly for backfill operations.
- EASY FLASHING can be walked on occasionally in the case of occasional maintenance.
- To improve the durability of EASY FLASHING it is recommended painting with suitable protective paints eg. Chevaline Dexx Topcoat for UV protection.
- Do not use EASY FLASHING on supports subject to counter-thrust or strong water pressure.

Written approval is required for this product to be in a system not outlined in the standard Equus specifications. The product must be installed by a Certified Equus Applicator. Verification of their status can be confirmed by a current applicator certificate or by contacting Equus Industries Ltd. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval by Equus Industries Ltd.

CERTIFICATION:

EASY FLASHING is CE marked in accordance with:

- EN 1504-2:2004 Surface protection system for concrete.
- EN 14891:2012 Dispersion liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesive.

BUILDING CODE COMPLIANCE:

B2 Durability - B2.3.1 (a) EASY FLASHING has a durability of at least 15 years when installed with the correct specification, installation and maintenance. Re-coating specifications are available to extend the life of the membrane.

E2 External moisture - E2.3.1, E2.3.2, E2.3.7 EASY FLASHING test data together with in-service history of the correctly installed EASY FLASHING system over correctly designed and constructed substrates, show that the membrane resists the ingress of moisture.

F2 Hazardous building materials - F2.3.1 Experience with the composition of materials used together with in-service history, show that EAST FLASHING complies with this performance requirement. Refer to SDS at www.equus.nz

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EASY FLASHING

Liquid waterproofing membrane

January 2024

SUPPORTING DOCUMENTATION:

Test reports can be provided by SOPREMA New Zealand Ltd.

STORAGE AND HANDLING:

Storage up to 12 months from the production date in the original packaging, in a cool environment, protected from frost and direct sunlight. EASY FLASHING fears frost, do not expose the packages to a temperature below +5°C; once frozen the product is not recoverable.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
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MANUFACTURERS CONTACT DETAILS:

Manufacture location	Italy
Legal and trading name of manufacturer	Soprema New Zealand Limited
Manufacturer address for service	Level 3, Candida Building 4, 61 Constellation Drive, Mairangi Bay, Auckland 0630, New Zealand
Manufacturer website	www.soprema.com.au
Manufacturer email	info@soprema.com.au
Manufacturer phone number	+61 3 9221 6230
Manufacturer NZBN	9429050312962

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Excellent crack bridging characteristics

Very high impact and puncture resistance

Good chemical and abrasion resistance

Fully cured one hour after application

Excellent waterproofing properties

KEY BENEFITS:

Highly flexible

Easy to apply

312 2 Pages

TECHNICAL SHEET

Page 1 of 2

MATACRYL THIX

A thixotropic version of Matacryl Manual

April 2024

PRODUCT:

Matacryl Thix is a viscous, urethane-modified, prereacted 100% solid membrane system based on acrylic monomers. To initiate curing, just add Matacryl Catalyst.

Matacryl Thix is designed as a simple to apply, highly elastomeric liquid waterproofing membrane and coating, for vertical and inclined substrates. The cured product is a very flexible crack-bridging membrane that retains its flexibility and crackbridging performance in service even when the temperature reaches -20°C.

The areas of application for Matacryl Thix include:

- As a Bridge Deck waterproofing membrane, on to which asphalt at temperatures up to 250°C can be directly applied.
- For sub-grade waterproofing of Buildings and Civil Engineering Structures, including below-grade Slabs.
- Waterproofing of concrete and metal Railway bridges including directly under track ballast.
- Waterproofing of Pedestrian and Vehicular trafficable areas (Balconies, Car Parks etc.)
- Protection and waterproofing of Tunnels, Channels and Dam structures.
- Waterproofing of containment structures including Reservoirs and waste and contaminated material storage structures.
- Offshore platforms.

Matacryl Thix can be applied at a wide range of ambient and substrate temperatures (-10°C to +35°C) onto cementitious based screeds, concrete, metal, and ceramic tile substrates, and filled bitumen/asphalt under specific conditions.

STANDARD PACKS:

30 kg units.

PROPERTIES:

Shore D hardness

	Liquid State	
Viscosity, 25°C	4000 mPa*s	DIN 53018
Density, 25°C	1.36 g/ml	ISO 2811
Pot life/processing time at 20°C	15 min.	
Curing time at 20°C	approx. 60 min.	
Flash Point	+11.5°C	ISO 1516

Cured State tested at 20°C		Cured State samples conditioned at -20°C for 24hrs before testing			
Tensile strength	6.7 N/mm ²	ISO 527	Tensile strength	7.1 N/mm ²	ISO 527
Elongation	320%	ISO 527	Elongation	340%	ISO 527
Modulus of elasticity	65 MPa	ISO 527	Modulus of elasticity	460 MPa	ISO 527
Abrasion 1000 cycles	64 mg	ISO 7784-2	Dynamic crack-bridging	>5 mm	BPG
Dynamic crack-bridging	>5 mm	BPG			
Shore A hardness	>85 IRHD	NFP 98285			

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DIN 53505

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312 2 Pages

TECHNICAL SHEET

Page 2 of 2

MATACRYL THIX

A thixotropic version of Matacryl Manual

April 2024

SUBSTRATE PREPARATION:

The area to be waterproofed must be dry, firm, solid and free of dust, fat and oil. Laitance and loose particles must be removed thoroughly, e.g. by shot blasting. Fats or oils as well as humidity can be removed by flame blasting for example. Before application of Matacryl Thix, a suitable Matacryl Primer, including sand-blinding when appropriate, must be first applied. For further details, see our general preparation and application guidelines for Matacryl waterproofing systems.

MIXING:

Prior to use, Matacryl Thix must be carefully stirred to achieve a uniform distribution of agents contained in the product. Matacryl Thix is then thoroughly mixed together with the Matacryl Catalyst (50% dibenzoyl peroxide), in accordance with the following guidelines.

It should be noted that the amount of catalyst powder to be added depends upon the substrate temperature.

At 30°C:	Add 200 grams of catalyst to a pail of 30 kg
At 20°C:	Add 350 grams of catalyst to a pail of 30 kg
At 10°C:	Add 700 grams of catalyst to a pail of 30 kg
At 0°C:	Add 1200 grams of catalyst to a pail of 30 kg
Below -5°C:	Add 1200 grams of catalyst to a pail of 30 kg and additionally add Matacryl Accelerator. Please contact your Equus Representative for further details.

Note: Weight to Volumetric conversion of Catalyst. 1 cc of Matacryl Catalyst weighs 0.64gm. 1gm of Matacryl Catalyst = 1.57 cc

APPLICATION:

Matacryl Thix is designed to be manually applied using a brush, roller or squeegee.

CONSUMPTION:

For product consumption per m²; please consult the System Build-up Sheets.

Per layer of membrane; a minimum thickness of 1mm (=1.23kg/m²) should always be applied per coat.

SIx months when stored in a cool and dry place and in originally closed packaging. The optimal storage temperature is 15-20°C.

HEALTH AND SAFETY:

Protective clothing, gloves and safety goggles must be worn when filling, mixing or handling of Matacryl Thix. When the product is applied in enclosed areas without natural ventilation, forced ventilation must be arranged. Avoid strong concentration of vapour as well as direct contact with skin or eyes. For further information see our Safety Data Sheet.

WARNINGS AND BANS:

ion 26 of the Building Act 2004? No

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Australia
Legal and trading name of manufacturer	Tremco CPG Pty Ltd.
Manufacturer address for service	12/4 Southridge Street, Eastern Creek, NSW 2766, Australia
Manufacturer website	
Manufacturer email	orders@tremco.com.au
Manufacturer phone number	+61 2 4648 0397

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3 Pages

TECHNICAL DATA SHEET

Page 1 of 3

CHEVALINE DEXX TOPCOAT

UV resistant finishing coat for the Chevaline Dexx waterproofing membrane

February 2024

PURPOSE AND AREAS OF USE:

A highly durable glossy finishing coat for use as an integral part of the Chevaline Dexx System on walkout decks and similar trafficable areas.

PRODUCT:

Chevaline Dexx Topcoat is a tough; flexible; gloss-finish, pigmented polyurethane/acrylic finishing coat. Waterborne for ease of use and formulated for maximum exterior durability, ease of cleaning, water resistance, excellent adhesion and UV resistance.

A highly durable Gloss or Satin finishing coat for use as an integral part of the Chevaline Dexx System on roofs, decks, balconies and similar traffcable areas.

Chevaline Dexx Topcoat is the topcoat in the Chevaline Dexx Membrane System with approved body coats and primers.

PROCESS COMPATIBILITY:

Formulated as a finishing coat for the Chevaline Dexx Flexible Reinforced Roof and Deck Membrane System.

COLOUR:

Available in all standard Equus Keim and BS5252 colours. May also be matched with other colours but a tinting charge may be applicable.

NB: The use of deep colours in exterior situations is not recommended because of the stress that may be imparted to the building's fabric through excessive heat absorption. Advice should be sought regarding this and special colour matching through your Equus Representative.

STANDARD PACK:

5 litre and 15 litre plastic pail.

PHYSICAL PROPERTIES:

Liquid Material	Dexx Bodycoat
Solids (% by volume)	39% approx.
Specific Gravity	1.1-1.2
Flash Point (°C)	None - water-based product
Shelf Life	3 years in original sealed container, when stored in cool, dry conditions.

Applied Film	Standard System
Flexibility	Passes 3 mm mandrel
Durability	Excellent long term service can be expected. The coating has been specially formulated for maximum UV resistance and weatherability.
Chemical Resistance	Good resistance against general atmospheric pollutants, domestic cleansers and normal household pollutants. Limited resistance to solvents and oils.
Fungus Resistance	Chevaline Dexx Topcoat contains a highly effective anti-fungal preparation which does not contain toxic metals or phenols.
Normal Film Thickness	25-35 microns dft per coat.

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TECHNICAL DATA SHEET

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CHEVALINE DEXX TOPCOAT

UV resistant finishing coat for the Chevaline Dexx waterproofing membrane

February 2024

SCOPE OF USE:

Chevaline Dexx Topcoat can be used on roofs, decks and other specified areas in existing or new residential or commercial buildings in accordance with the standard Dexx specification.

Suitable as a finished coating or can be overlaid with tiles, pedestals & decking materials.

CONDITIONS OF USE:

Chevaline Dexx Topcoat is not suitable for public high foot traffic or vehicular traffic areas.

The installation must be done by a Certified Equus Applicator. Verification of Applicator status can be confirmed by a current Applicator Certificate or by contacting Equus Industries. Any installation must be done in accordance with the latest specifications and technical documentation, or with written approval from Equus Industries.

SURFACE PREPARATION:

Previously coated Dexx surfaces (old or new):	Dexx surfaces overcoated with Chevaline Colourglaze, Traxx Colourseal or Chevaline Dexx Topcoat, or presently not overcoated. Ensure the surface is clean and dry. If necessary use medium pressure water to ensure the surface is thoroughly clean. Old surfaces, repair any existing mechanical damage with the Dexx process prior to recoating.
2. All other surfaces	Clean as in 1 above and apply a test area of Chevaline Dexx Topcoat to determine adhesion before proceeding with the complete treatment.
Priming:	
1.	New Dexx, or existing Dexx Membrane finished with Chevaline Colourglaze, Chevaline Dexx Topcoat. No priming required.
2.	On other deck membrane surfaces. If a test patch, or obvious surface conditions indicate the need to prime, refer to the nearest Equus Office or your Equus Representative for primer recommendation.

APPLICATION METHOD:

Brush or Roller:	Thinning generally not required.
Spray: (Airless or Air Assisted)	Thin up to 30% by volume with clean water, as needed.
Spreading rate:	9-12 sqm/litre.
Dry time:	Touch dry 1-2 hours. Through dry 2-4 hours.
Clean up / Thinning:	Clean tap water.

MAINTENANCE:

Chevaline Dexx Topcoat is a low maintenance finish. It is recommended that it be washed at least every three months with a weak (0.1%) neutral detergent and well rinsed with clean water.

As the purpose of Chevaline Dexx Topcoat is to protect the underlying membrane and maintain its overall finish, recoating should be timed to occur before damage is caused to the underlying surface. Simply wash with a weak (0.1%) neutral detergent solution, rinse and dry before recoating with Chevaline Dexx Topcoat.

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TECHNICAL DATA SHEET

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CHEVALINE DEXX TOPCOAT

UV resistant finishing coat for the Chevaline Dexx waterproofing membrane

February 2024

WARRANTY:

Chevaline Dexx Topcoat is an integral component of the Chevaline Dexx Reinforced Roof and Deck Membrane System and the Warranty applicable is that of the Chevaline Dexx System it is an integral part of.

When Chevaline Dexx Topcoat is used to recoat an existing Chevaline Dexx Membrane surface; any existing Process Warranty may be reviewed and possibly extended.

HEALTH AND SAFETY:

Wear barrier cream when handling this product, and cartridge mask and goggles when spraying. It is a waterborne material and therefore is non flammable. However, it is recommended NOT TO SMOKE when handling or applying the material. No special storage conditions are required other than protection from frost and prolonged heat.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
--	----

MANUFACTURERS CONTACT DETAILS:

Manufacture location	New Zealand
Legal and trading name of manufacturer	Equus Industries Ltd.
Manufacturer address for service	4 Sheffield Street, Blenheim 7274
Manufacturer website	www.equus.nz
Manufacturer email	info@equus.nz
Manufacturer phone number	03 578 0214
Manufacturer NZBN	9429032000306

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2 Pages
TECHNICAL DATA SHEET

Page 1 of 2

PERMABASE® DEK

Lightweight roof cover board

January 2024

DESCRIPTION:

PermaBASE® DEK Cement Board is lightweight, easy to cut and fasten, and very durable in the presence of moisture. It will not rot, swell, or disintegrate in the presence of moisture. As an underlayment board or cover board for commercial, low slope roofs it provides excellent compressive strength, delamination resistance, and fungus resistance. It can be used in combination with a variety of roofing membranes and systems.







BASIC USES:

Roofing systems manufacturer have found that PermaBASE® DEK Cement Board works well in the following applications of systems:

- · Modified bitumen membranes.
- Built-up roofing systems with single-ply roofing systems.
- · Inverted and green roof systems.

ADVANTAGES:

- Unaffected by prolonged exposure to moisture.
- Low water absorption.
- · Does not require primers.
- · Scores and snaps easily and cleanly.
- Protective surface cover over roof assembly and superior flute spanning increases deck stiffness.
- Superior impact and puncture resistance due to high compressive strength.
- Fire resistant.
- Out performs fibreboard, perlite, or glass mat faced gypsum board in moisture protection and durability.
- Suitable for inverted roof assemblies with liquid membranes.
- Do not use panels as a nailing base (they are non-structural).

PACKAGING:

Thickness, Width and Length	# of Pcs. per Unit
9.5 mm x 1219 mm x 2438 mm	50

TECHNICAL DATA:

Physical Properties	Standard	Value
Nominal thickness (mm)	n/a	9.5
Weight (kg/m²)	n/a	11.0
Flexural strength (MPa)	ASTM C 947	8.6
R Value	ASTM C 518	0.28
Bending radius (m)	n/a	0.9
Water absorption, % max.	ASTM D 1037	5
Water vapour permeance (ng/Pa-s-m²)	ASTM E 96	260
Flame spread/smoke developed	ASTM E 84/ULC S-102	0/0

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EQUIUSPERMABASE[®] DEK

Lightweight roof cover board

January 2024

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No

MANUFACTURERS CONTACT DETAILS:

Manufacture location	Canada
Legal and trading name of manufacturer	National Gypsum

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PRODUCT DATA SHEET

Equus Short Roof Vent

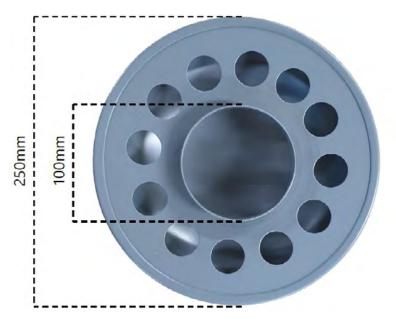
Purpose & Areas of Use:

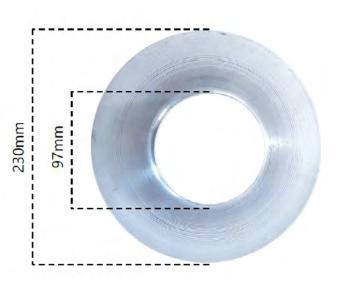
The Equus Short Roof Vent is designed primarily to vent the ceiling cavity and is normally located near or on the ridgeline. This vent is to be either glued or screwed into place. If screwed, they are to be stainless steel and counter sunk.

All flashing of penetration is to be done as per specifications set out in E2/AS1.

- Standard colours grey or black.
- Project specific detailing available to meet individual service requirements.







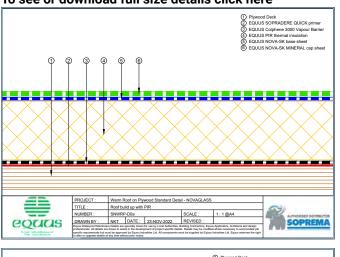


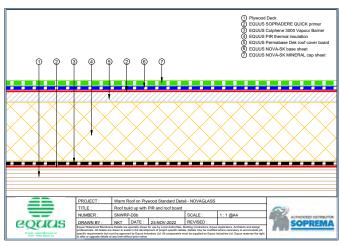


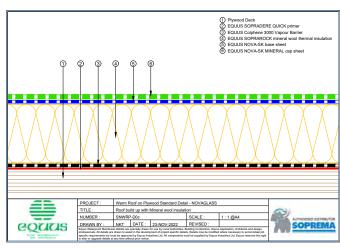
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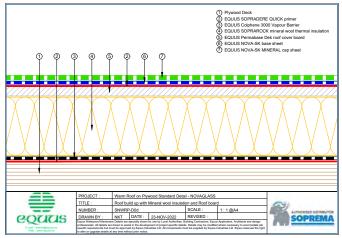
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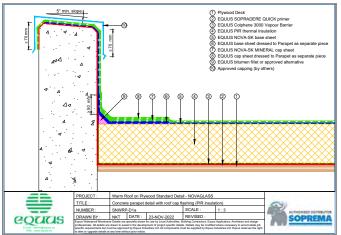
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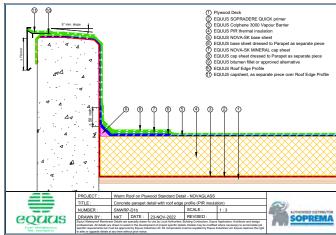


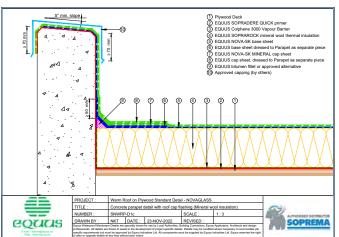


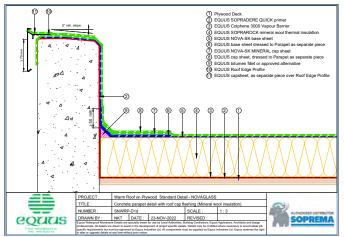


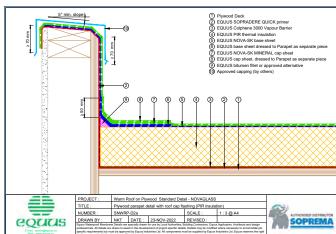


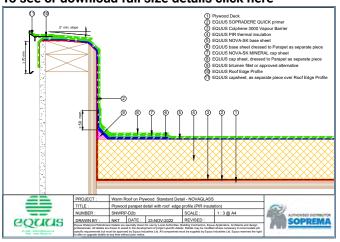


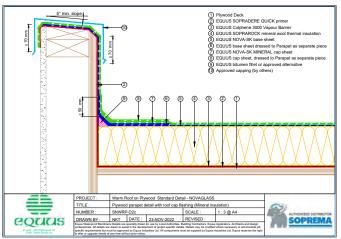


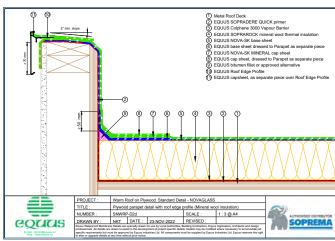


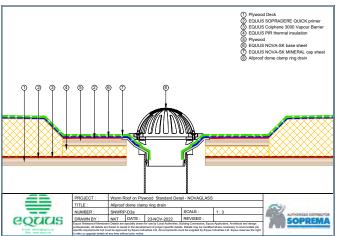


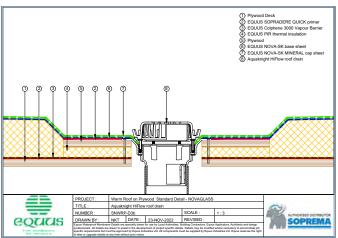


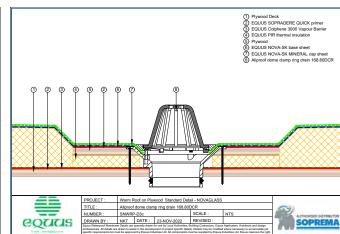


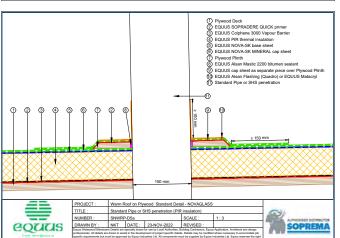


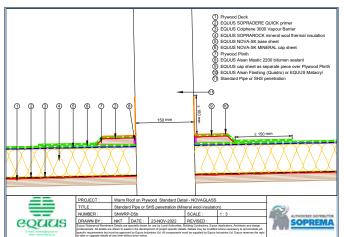


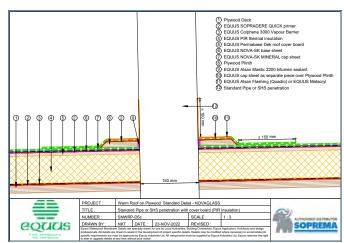


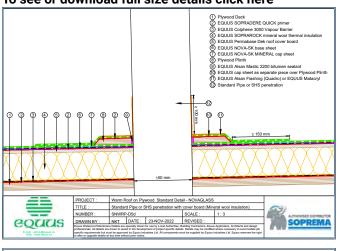


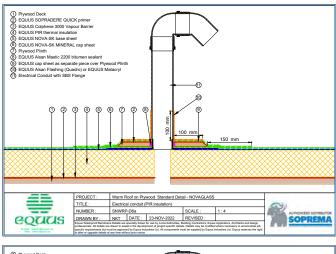


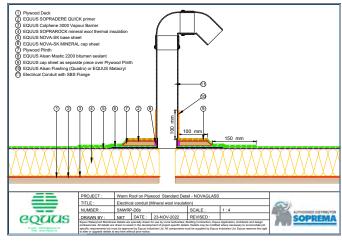


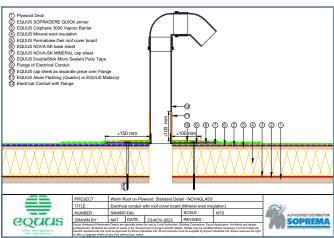


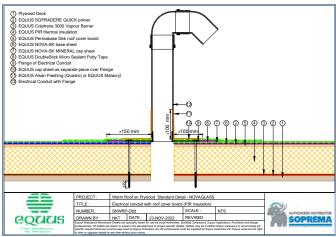


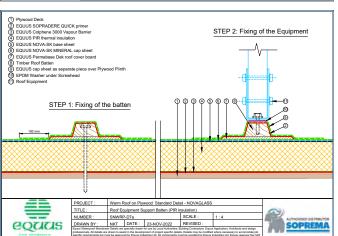


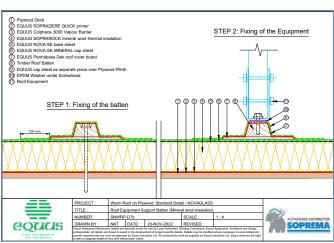


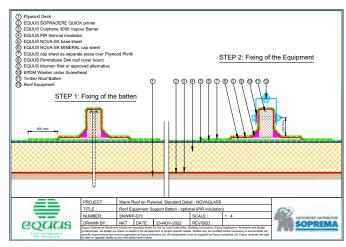


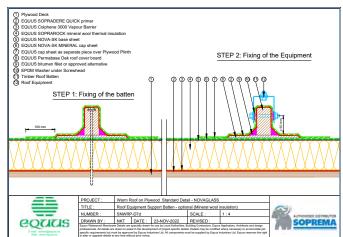


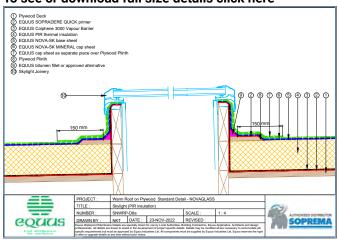


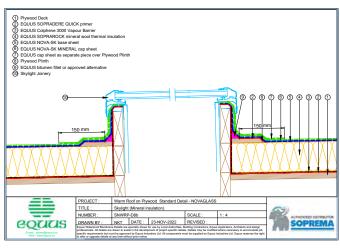


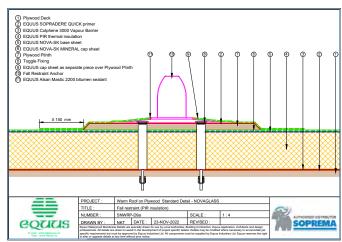


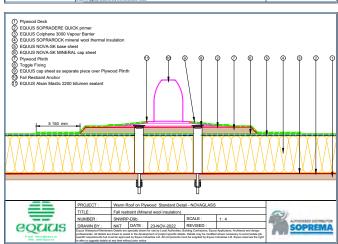


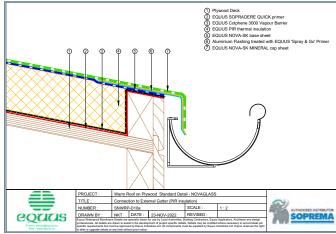


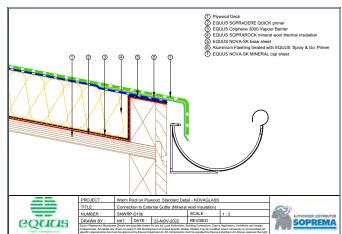


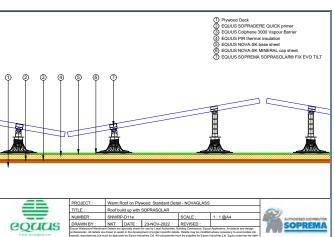


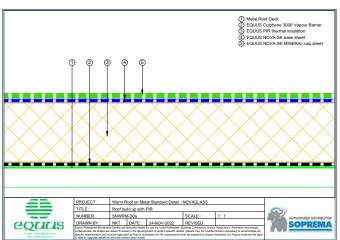


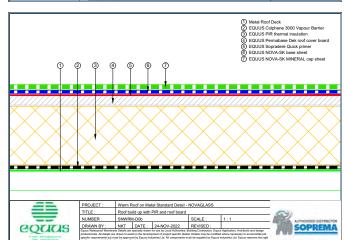


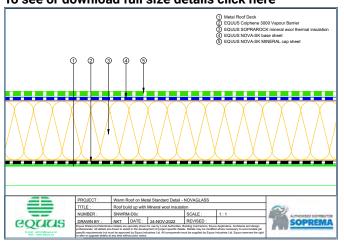


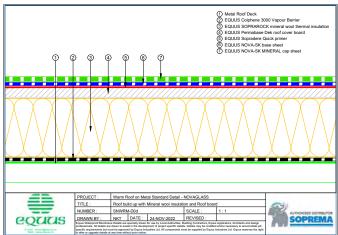


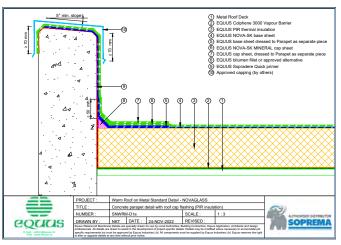


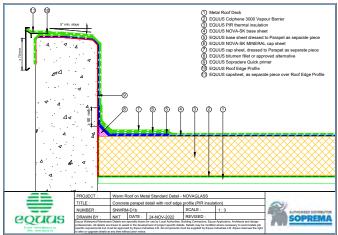


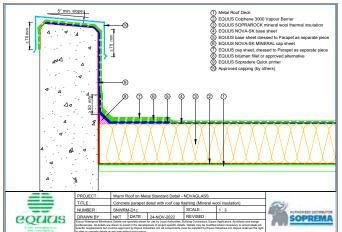


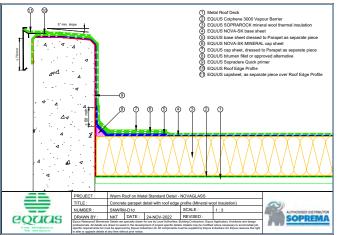


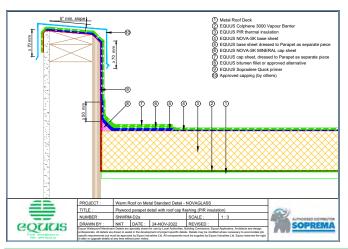


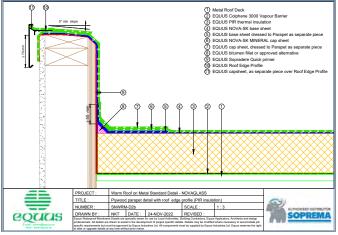


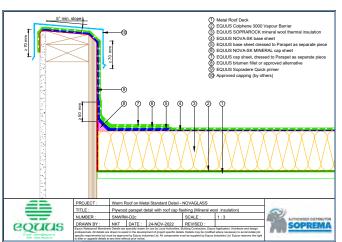


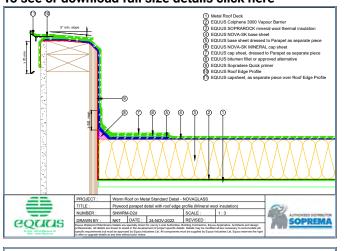


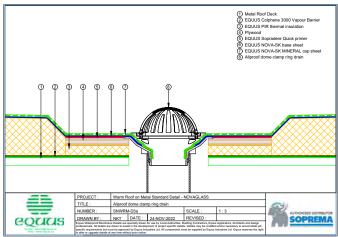


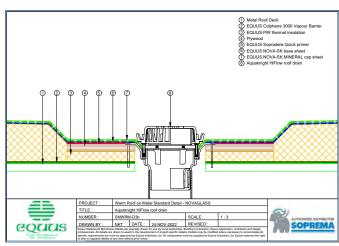


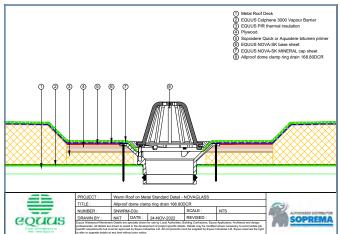


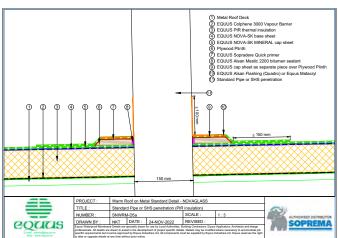


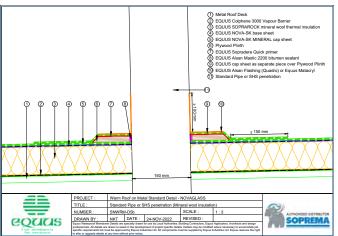


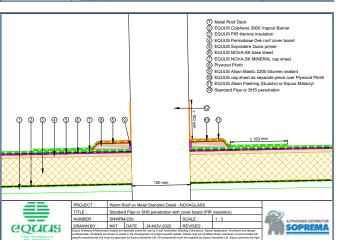


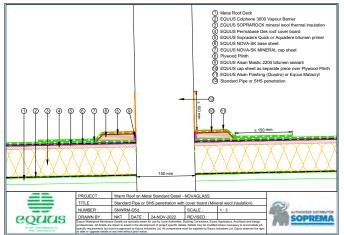


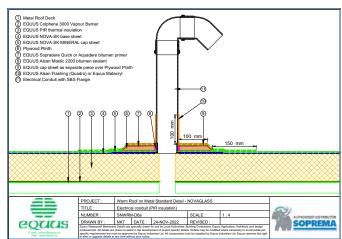


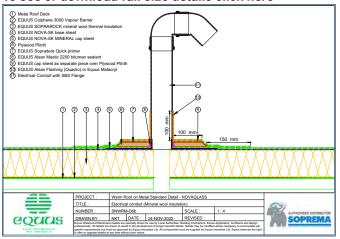


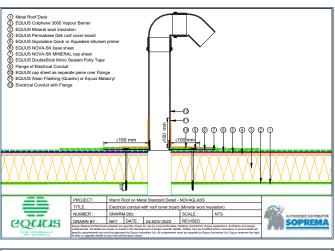


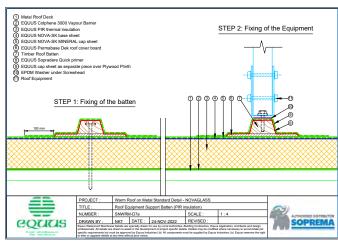


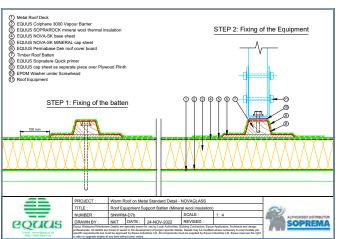


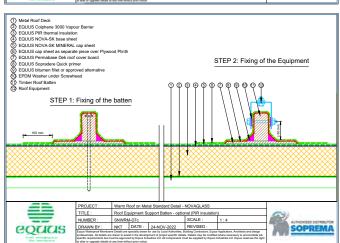


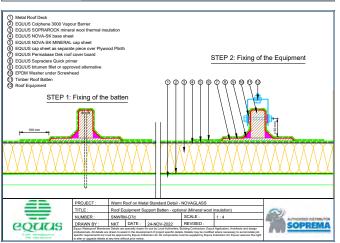


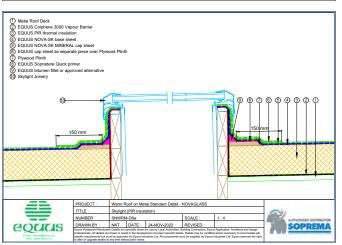


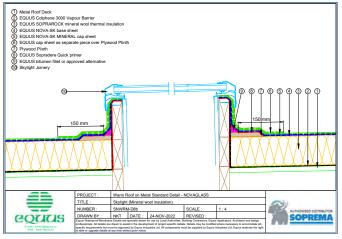


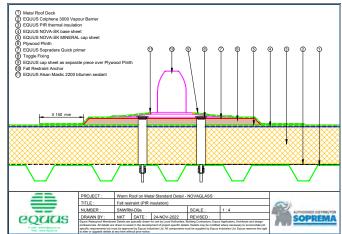


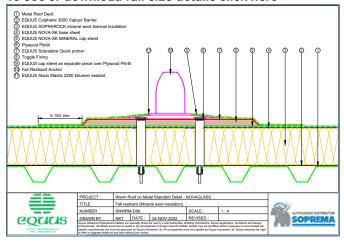


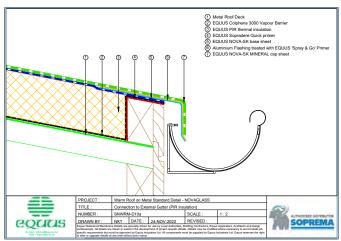


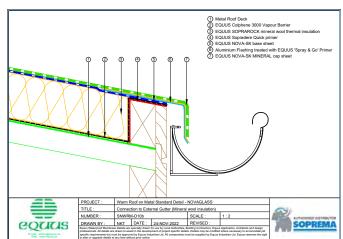


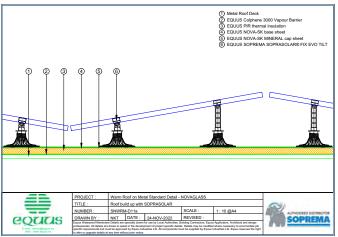


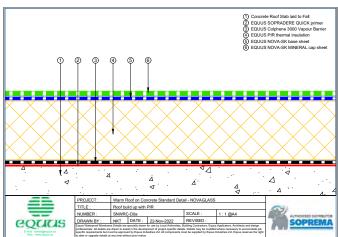


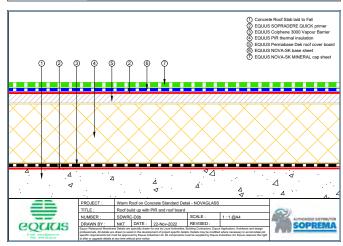


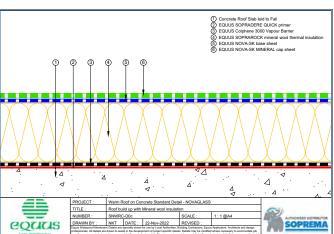


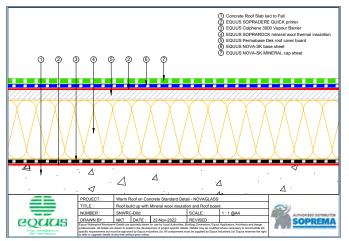


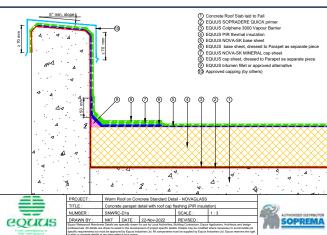


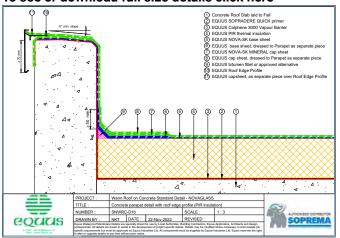


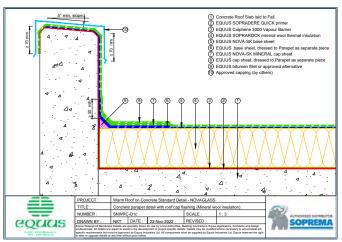


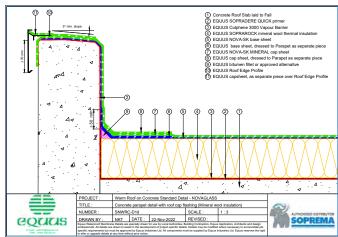


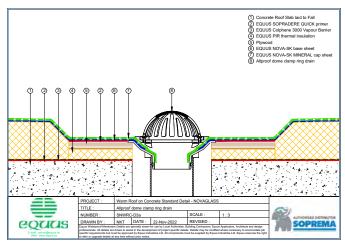


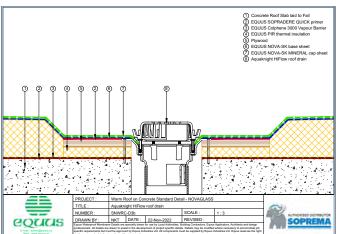


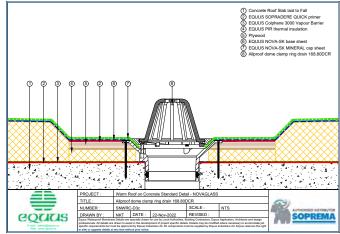


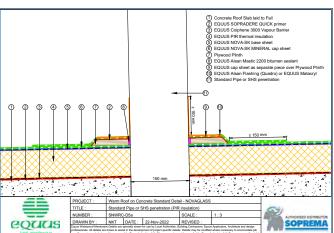


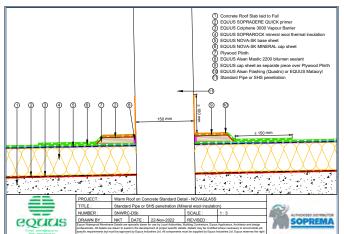


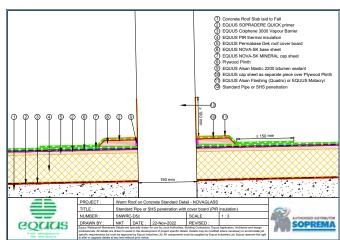


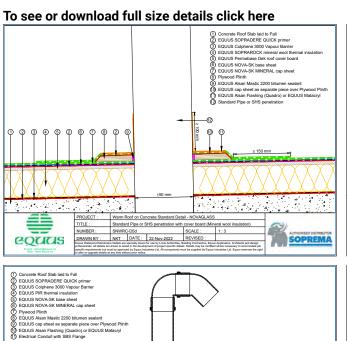


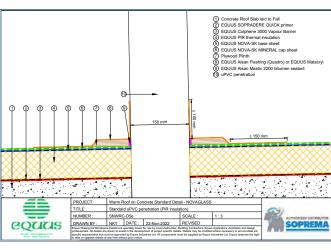


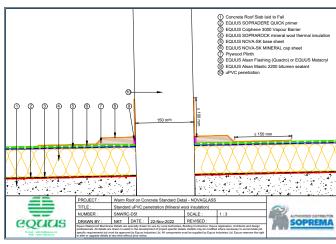


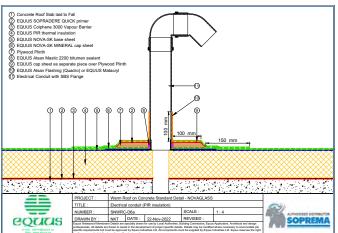


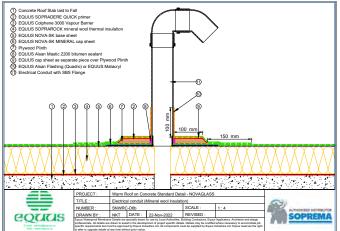


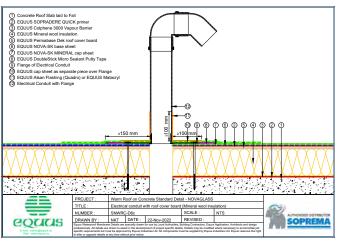


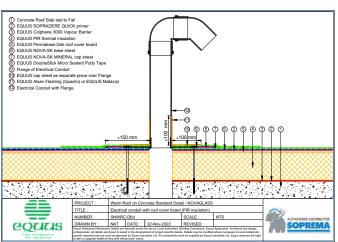


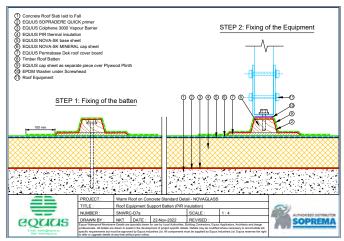


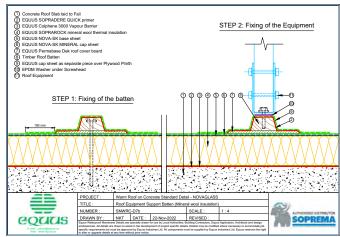


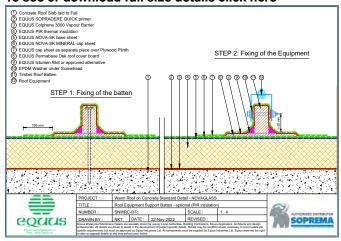


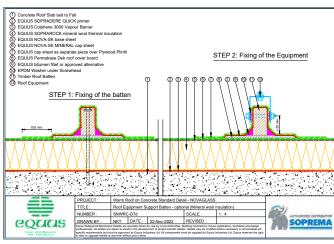


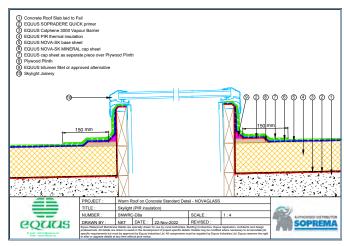


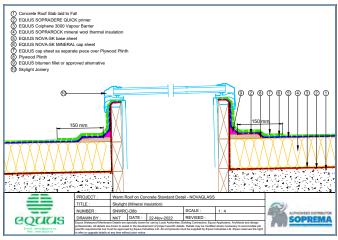


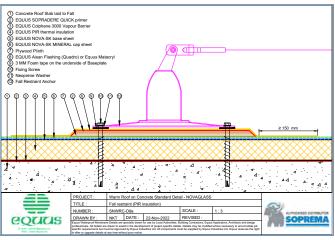


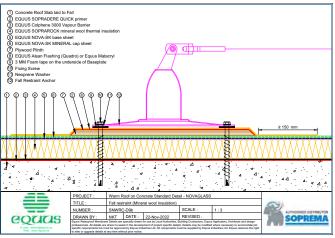


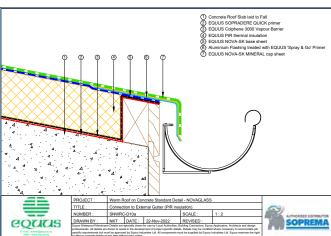


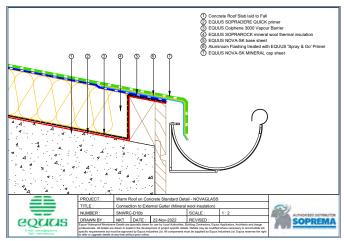


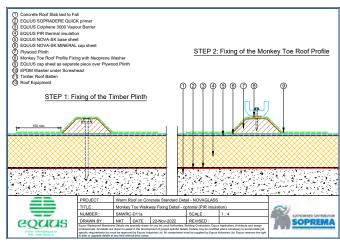


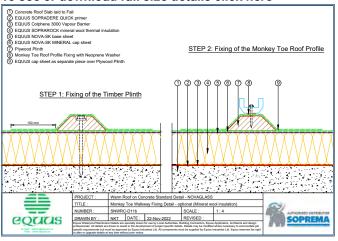


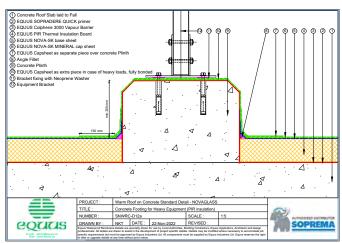


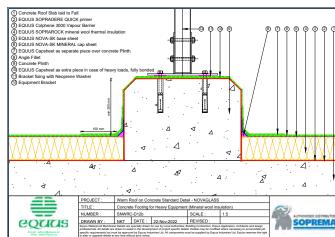


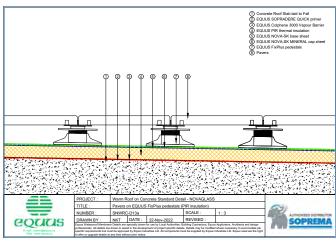


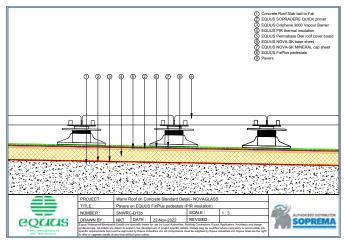


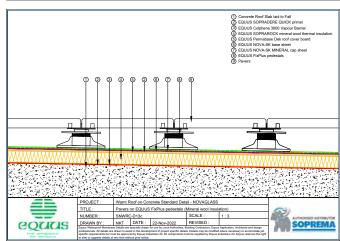


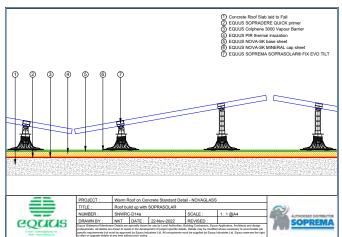












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Equus Southern

Unit 6/100 Fitzgerald Ave, Christchurch

> PO Box 19 846 Christchurch

Ph: 03 353 2434

southern@equus.nz

Equus Central

45 Hutt Rd, Petone, Wellington

PO Box 38 636 Wellington Mail Centre

Ph: 04 576 0333

central@equus.nz

Equus Northern

211 Archers Rd, Wairau Valley, Glenfield, Auckland

PO Box 101 423 North Shore Mail Centre

Ph: 09 415 4314

northern@equus.nz

