

EQUUS SOPREMA WARM ROOF SYSTEMS

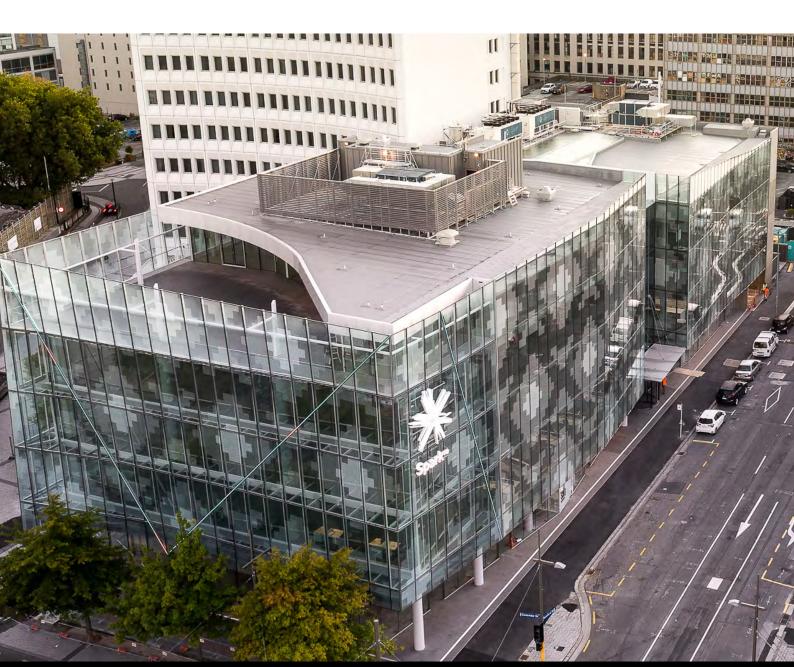
BUILD UP INFORMATION





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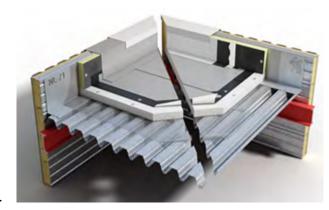


INTRODUCTION

The EQUUS SOPREMA WARM ROOF SYSTEM is a multilayer insulated roofing system for new or existing roof and deck areas.

It can be installed over concrete, plywood, and metal substrates subject to specific structural design.

The system is composed of a vapour barrier, metalfaced insulation panel, roof board, and a waterproofing membrane system with the corresponding accessories.



CERTIFICATIONS









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





BUILD UP

Substrate

- Plywood
- Metal tray (min of 0.7mm reverse run)
- Concrete

Vapour Barrier

- Torch-on
- Self-adhesive
- Self-adhesive with sound insulation

Thermal Insulation

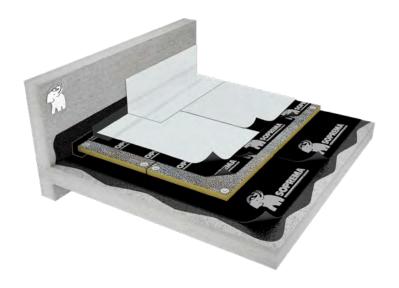
- Polyisocyanurate (PIR)
- Mineral Wool

Roof Board (optional)

Cement based cover board

Waterproofing Layer

- Double layer bituminous waterproofing membrane system. Torch applied, selfadhered, glue adhered, and mechanically fastened options available
- · Single ply synthetic TPO membrane



Overlay Options

- · Solar panel pedestals
- Extensive, semi-intensive or intensive green roof systems.
- Floating deck systems with pedestals
- Rubber tiles





SUBSTRATE OPTIONS

- Plywood (minimum 17mm C-D Structural Plywood H3 CCA)
- Metal tray
 - **Dimond BB900 Reverse Run**
 - **Dimond LT7 Reverse Run**
 - **Dimon Topspan Reverse Run**
- Concrete (in accordance with NZBC B1/VM1, 3.0, NZS 3101:part 1:2006)

DUOTHERM WARM ROOFS

VAPOUR BARRIER OPTIONS

Vapour barrier determined based on warm roof system, location and project specific wind uplift calculations and condensation risk analysis.

- EQUUS SOPREMA DEBOFLEX 2.5 T/F C175 SBS-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASUN PLUS 3 APP-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASTICK TF SBS-modified bituminous self-adhered membrane
- EQUUS SOPREMA COLPHENE 3000 SBS-modified bituminous self-adhered membrane

THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (flat board)

Recticel Eurothane Silver is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
60	2.7
80	3.65
100	4.5
120	5.45
150	6.6

- Aged thermal conductivity coefficient $(=\lambda) 0.022W/m.K (EN 12667)$
- High compressive strength ≥150 kPa at 10% deformation
- Water absorption < 2.0%



Board size: 1200 x 2500mm

Board density: 30 kg/m3

Quality labels











Polyisocyanurate PIR Thermal Insulation (flat board)

EQUUS SOPREMA SOPRA-ISO is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
50	2.35
80	4.00
100	4.85
140	6.6

 Aged thermal conductivity coefficient (=λ) (AS/NZS 4859.1)

50-70mm = 0.021 W/m.K 80-95mm = 0.020 W/m.K

100mm = 0.021 W/m.K

 High compressive strength ≥160 kPa at 10% deformation



Board size: 1200 x 2270mm

Board density: 34 kg/m³

· Quality labels







THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (tapered board)

PIR Insulation tapered to fall (1:60, 1:80, 1:120)

Minimum thickness: 20mm

R-Value: Average value calculated over the total roof area

Board size: 1200 x 1200mm



Mineral Wool Thermal Insulation (flat board)

SOPRAROCK HD60 is a single density, non-flammable, water repellent, thermal and sound insulation board of mineral wool based on basalt rock.

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
60	1.55
80	2.05
100	2.63
120	3.15
140	3.68

- Aged thermal conductivity 0.038 m².K/W (EN 12667)
- Compressive stress (60kPa @ 10% deformation)
- Non-combustible (Euro Class A1, EN13501-1)



Moisture absorption: <1.0%

Board Size: 1200 x 600mm

Board Density: 180 kg/m³





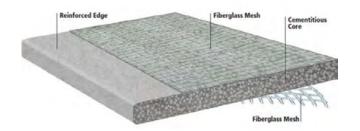


ROOF BOARD (OPTIONAL)

PermaBase DEK

Is lightweight, easy to cut and fasten, and very durable in the presence of moisture.

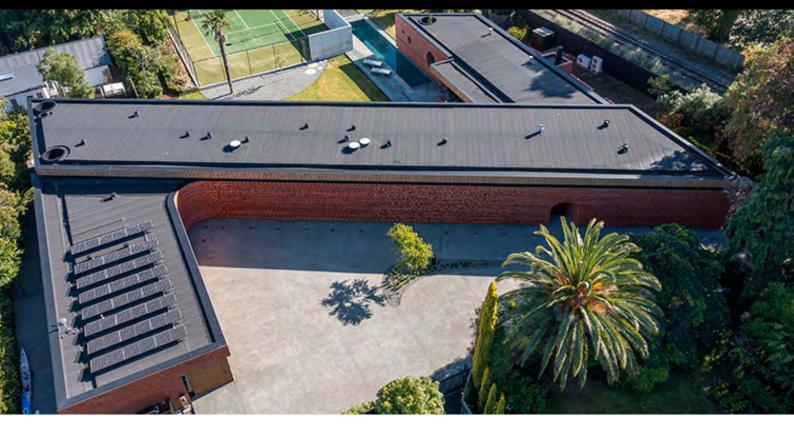
- R-value 0.28
- · Compression strength: 8618kPA
- Non-combustible
- Moisture absorption: <5%
- Board Size: 2400 x 1200mm
- Thickness: 9mm











DOUBLE LAYER BITUMINOUS WATERPROOFING SYSTEM

For DUOTHERM Warm Roofs:

Base sheet membrane options:

- EQUUS SOPREMA DEBOFLEX 2.5 T/F C175 SBS-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASUN PLUS 3 APP-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASTICK VENTI TACK PLUS TF SBS-modified bituminous self-adhered membrane

Cap sheet membrane options:

- EQUUS SOPREMA DUO HT 4 SLATES/F C180 FIRECARE (or variant)
 SBS-modified bituminous torch-on membrane
- EQUUS SOPREMA DUO HT 4 SLATES/F C180 FIRECARE LANDSCAPE (for green roof systems) SBS-modified bituminous torch-on membrane



Warm Roof Build Up



Available Colours:



BO (Brown Oxide)

Special order

NOIR (Black)

WGG (White Grey Green)

Special order





H1 ENERGY EFFICIENCY COMPLIANCE - R-Value 6.6.

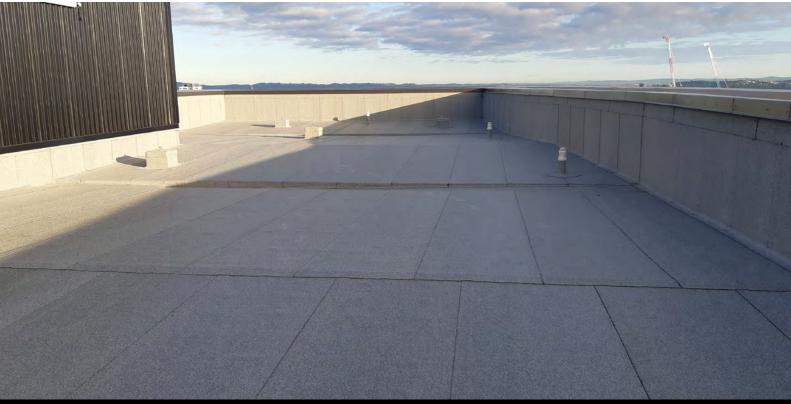
WARM ROOF SYSTEM EXAMPLES (incl. weight)

SOPREMA DUOTHERM with PIR Insulation: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRA-ISO Silver PIR Insulation	4.76	140
DEBOFLEX 2.5 or SOPRASTICK TF Base Sheet	2.5	2.5
DUO Cap Sheet	4.63	4
Total Weight	13.39	148

SOPREMA DUOTHERM with Mineral Wool Insulation and Roof Board: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRAROCK MINERAL WOOL Insulation	45	250
PermaBase DEK	11	9
DEBOFLEX 2.5 or SOPRASTICK TF Base Sheet	2.5	2.5
DUO Cap Sheet	4.63	4
Total Weight	64.63	267







NOVATHERM WARM ROOFS

VAPOUR BARRIER OPTIONS

Vapour barrier determined based on warm roof system, location and project specific wind uplift calculations and condensation risk analysis.

- EQUUS SOPREMA NOVA-SK SBS-modified bituminous self-adhered membrane
- EQUUS SOPREMA COLPHENE 3000 SBS-modified bituminous self-adhered membrane

THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (flat board)

Recticel Eurothane Silver is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
60	2.7
80	3.65
100	4.5
120	5.45
150	6.6



- Aged thermal conductivity coefficient (=λ) 0.022W/m.K (EN 12667)
- High compressive strength ≥150 kPa at 10% deformation
- Water absorption < 2.0%

- Board size: 1200 x 2500mm
- Board density: 30 kg/m³
- · Quality labels







Polyisocyanurate PIR Thermal Insulation (flat board)

EQUUS SOPREMA SOPRA-ISO is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
50	2.35
80	4.00
100	4.85
140	6.6

 Aged thermal conductivity coefficient (=λ) (AS/NZS 4859.1)

50-70mm = 0.021 W/m.K

80- 95mm = 0.020 W/m.K

100mm = 0.021 W/m.K

 High compressive strength ≥160 kPa at 10% deformation



Board size: 1200 x 2270mm

Board density: 34 kg/m³

Quality labels











THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (tapered board)

PIR Insulation tapered to fall (1:60, 1:80, 1:120)

- Minimum thickness: 20mm
- R-Value: Average value calculated over the total roof area
- Board size: 1200 x 1200mm



Mineral Wool Thermal Insulation (flat board)

SOPRAROCK HD60 is a single density, non-flammable, water repellent, thermal and sound insulation board of mineral wool based on basalt rock.

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
60	1.55
80	2.05
100	2.63
120	3.15
140	3.68

- Aged thermal conductivity 0.038 m².K/W (EN 12667)
- Compressive stress (60kPa @ 10% deformation)
- Non-combustible (Euro Class A1, EN13501-1)



- Moisture absorption: <1.0%
- Board Size: 1200 x 600mm
 Board Density: 180 kg/m³

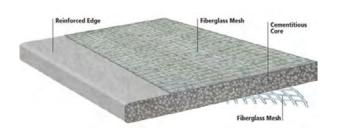


ROOF BOARD (OPTIONAL)

PermaBase DEK

Is lightweight, easy to cut and fasten, and very durable in the presence of moisture.

- R-value 0.28
- Compression strength: 8618kPA
- Non-combustible
- Moisture absorption: <5%
- Board Size: 2400 x 1200mm
- Thickness: 9mm









DOUBLE LAYER BITUMINOUS WATERPROOFING SYSTEM

For NOVATHERM Warm Roofs:

Base sheet membrane options:

EQUUS SOPREMA NOVA-SK SBS-modified bituminous torch-on membrane

Cap sheet membrane options:

EQUUS SOPREMA NOVA-SK MINERAL SBS-modified bituminous torch-on membrane

Available Colour:

Dark Grev



WARM ROOF SYSTEM WEIGHT

SOPREMA NOVATHERM with PIR Insulation: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRA-ISO Silver PIR Insulation	4.76	140
NOVA-SK Base Sheet	3	3
NOVA-SK MINERAL Cap Sheet	4.5	3.8
Total Weight	13.76	148.3

SOPREMA NOVATHERM with Mineral Wool Insulation and Roof Board: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRAROCK MINERAL WOOL Insulation	45	250
PermaBase DEK	11	9
NOVA-SK Base Sheet	3	3
NOVA-SK MINERAL Cap Sheet	4.5	3.8
Total Weight	65	267.3





SOPRATHERM WARM ROOFS

VAPOUR BARRIER OPTIONS

Vapour barrier determined based on warm roof system, location and project specific wind uplift calculations and condensation risk analysis.

- EQUUS SOPREMA SOPRASUN PLUS 3 APP-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASTICK TF SBS-modified bituminous self-adhered membrane
- EQUUS SOPREMA COLPHENE 3000 SBS-modified bituminous self-adhered membrane

THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (flat board)

Recticel Eurothane Silver is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
60	2.7
80	3.65
100	4.5
120	5.45
150	6.6



- Aged thermal conductivity coefficient (=λ) 0.022W/m.K (EN 12667)
- High compressive strength ≥150 kPa at 10% deformation
- Water absorption < 2.0%

- Board size: 1200 x 2500mm
- Board density: 30 kg/m³
- Quality labels







Polyisocyanurate PIR Thermal Insulation (flat board)

EQUUS SOPREMA SOPRA-ISO is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
50	2.35
80	4.00
100	4.85
140	6.6

 Aged thermal conductivity coefficient (=λ) (AS/NZS 4859.1)

50-70mm = 0.021 W/m.K 80-95mm = 0.020 W/m.K

100mm = 0.021 W/m.K

 High compressive strength ≥160 kPa at 10% deformation



Board size: 1200 x 2270mm

Board density: 34 kg/m³

· Quality labels











THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (tapered board)

PIR Insulation tapered to fall (1:60, 1:80, 1:120)

- Minimum thickness: 20mm
- R-Value: Average value calculated over the total roof area
- Board size: 1200 x 1200mm



Mineral Wool Thermal Insulation (flat board)

SOPRAROCK HD60 is a single density, non-flammable, water repellent, thermal and sound insulation board of mineral wool based on basalt rock.

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W	
60	1.55	
80	2.05	
100	2.63	
120	3.15	
140	3.68	

- Aged thermal conductivity 0.038 m².K/W (EN 12667)
- Compressive stress (60kPa @ 10% deformation)
- Non-combustible (Euro Class A1, EN13501-1)



- Moisture absorption: <1.0%
- Board Size: 1200 x 600mm
- Board Density: 180 kg/m³

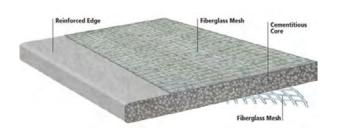


ROOF BOARD (OPTIONAL)

PermaBase DEK

Is lightweight, easy to cut and fasten, and very durable in the presence of moisture.

- R-value 0.28
- Compression strength: 8618kPA
- Non-combustible
- Moisture absorption: <5%
- Board Size: 2400 x 1200mm
- Thickness: 9mm









DOUBLE LAYER BITUMINOUS WATERPROOFING SYSTEM

For SOPRATHERM Warm Roofs:

Base sheet membrane options:

- EQUUS SOPREMA SOPRASUN PLUS 3 APP-modified bituminous torch-on membrane
- EQUUS SOPREMA SOPRASTICK VENTI TACK PLUS TF SBS-modified bituminous self-adhered membrane

Available Colour:



Cap sheet membrane options:

 EQUUS SOPREMA SOPRASUN PLUS 4.5KG MINERAL APP-modified bituminous torch-on membrane

H1 ENERGY EFFICIENCY COMPLIANCE - R-Value 6.6 WARM ROOF SYSTEM (incl. weight)

SOPREMA SOPRATHERM with PIR Insulation: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRA-ISO PIR Insulation	4.76	140
SOPRASUN PLUS 3 Base Sheet	4	3
SOPRASUN PLUS 4.5KG MINERAL Cap Sheet	4.5	3.6
Total Weight	14.76	148.1

SOPREMA SOPRATHERM with Mineral Wool Insulation and Roof Board: R-Value 6.6

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRAROCK MINERAL WOOL Insulation	45	250
PermaBase DEK	11	9
SOPRASUN PLUS 3 Base Sheet	4	3
SOPRASUN PLUS 4.5KG MINERAL Cap Sheet	4.5	3.6
Total Weight	66	267.1



TPO-THERM WARM ROOFS

VAPOUR BARRIER OPTIONS

Vapour barrier determined based on warm roof system, location and project specific wind uplift calculations and condensation risk analysis.

- EQUUS SOPREMA NOVA-SK SBS-modified bituminous self-adhered membrane
- EQUUS SOPREMA COLPHENE 3000 SBS-modified bituminous self-adhered membrane

THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (flat board)

Recticel Eurothane Silver is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W	
60	2.7	
80	3.65	
100	4.5	
120	5.45	
150	6.6	



- Aged thermal conductivity coefficient (=λ) 0.022W/m.K (EN 12667)
- High compressive strength ≥150 kPa at 10% deformation
- Water absorption < 2.0%

- Board size: 1200 x 2500mm
- Board density: 30 kg/m³
- · Quality labels









Polyisocyanurate PIR Thermal Insulation (flat board)

EQUUS SOPREMA SOPRA-ISO is a composite aluminium foil facing PIR thermal insulation board

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W
50	2.35
80	4.00
100	4.85
140	6.6

 Aged thermal conductivity coefficient (=λ) (AS/NZS 4859.1)

50-70mm = 0.021 W/m.K

80- 95mm = 0.020 W/m.K

100mm = 0.021 W/m.K

 High compressive strength ≥160 kPa at 10% deformation



Board size: 1200 x 2270mm

Board density: 34 kg/m³

· Quality labels











THERMAL INSULATION OPTIONS

Polyisocyanurate PIR Thermal Insulation (tapered board)

PIR Insulation tapered to fall (1:60, 1:80, 1:120)

- Minimum thickness: 20mm
- R-Value: Average value calculated over the total roof area
- Board size: 1200 x 1200mm



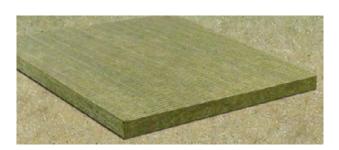
Mineral Wool Thermal Insulation (flat board)

SOPRAROCK HD60 is a single density, non-flammable, water repellent, thermal and sound insulation board of mineral wool based on basalt rock.

Performance Characteristics:

Thickness (mm)	R-Value m ² .K/W	
60	1.55	
80	2.05	
100	2.63	
120	3.15	
140	3.68	

- Aged thermal conductivity 0.038 m².K/W (EN 12667)
- Compressive stress (60kPa @ 10% deformation)
- Non-combustible (Euro Class A1, EN13501-1)



- Moisture absorption: <1.0%
- Board Size: 1200 x 600mm
 Board Density: 180 kg/m³

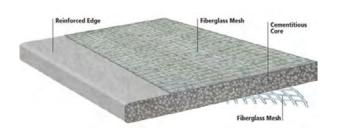


ROOF BOARD (OPTIONAL)

PermaBase DEK

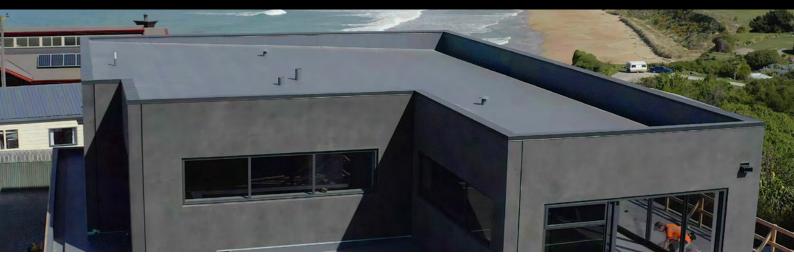
Is lightweight, easy to cut and fasten, and very durable in the presence of moisture.

- R-value 0.28
- Compression strength: 8618kPA
- Non-combustible
- Moisture absorption: <5%
- Board Size: 2400 x 1200mm
- Thickness: 9mm









SINGLE LAYER SYNTHETIC MEMBRANE OPTIONS

For TPO-THERM Warm Roofs:

- EQUUS SOPREMA FLAGON EP/PR
 1.5mm naked TPO membrane
- EQUUS SOPREMA FLAGON EP/PV-F 1.5mm fleece backed TPO membrane

Available Colours:

Basalt Grey Sand Grey

H1 ENERGY EFFICIENCY COMPLIANCE – R-Value 6.6 WARM ROOF SYSTEM (incl. weight)

SOPREMA TPO-THERM with PIR Insulation: *R-Value* 3.65

Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRA-ISO Silver PIR Insulation	4.76	140
TPO Single Ply Membrane	1.6	1.5
Total Weight	7.86	143

SOPREMA TPO-THERM with Mineral Wool Insulation and Roof Board: R-Value 2.33

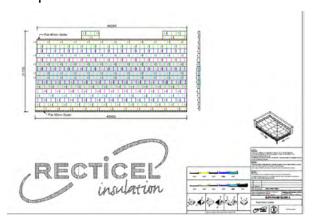
Product	Weight Kg/m ²	Thickness (mm)
COLPHENE 3000 (Vapour Barrier)	1.5	1.5
SOPRAROCK MINERAL WOOL Insulation	45	250
PermaBase DEK	11	9
TPO Single Ply Membrane	1.6	1.5
Total Weight	59.1	262

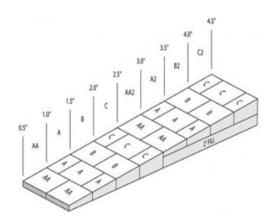




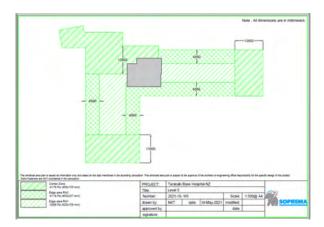
PROJECT-SPECIFIC ENGINEERING SUPPORT AND SPECIFICTION TIPS

· Tapered Insulation Scheme

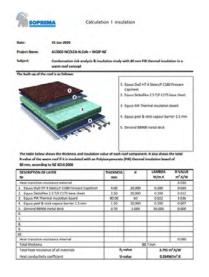


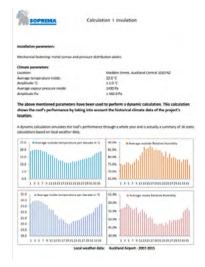


Wind Load Calculations



Condensation Risk Analysis











ACCESSORIES



For a full list of available accessories see the Equus Accessories Catalogue.





KEY FEATURES

- CodeMark certified membranes are approved for roofs & decks with finished falls of minimum 1:80, and 1:100 for gutters, allowing for a finished fall of 1°.
- 20-year material warranties available for all warm roof systems with 25-years available for DUOTHERM.
- 20-year insurance-backed material warranty for DUOTHERM provides unique, extra protection for all parties involved, prepaid by the manufacturer.
- SOPREMA have been world experts in high performance waterproofing and insulation since 1908.
- SOPREMA has local representation in New Zealand.
- Equus have been providing waterproofing solutions for the New Zealand building industry since 1982.



20 YEAR PRODUCT WARRANTY DIE BIER WILLEFREIGEN SOLITIÖNS WEITERS FALL DE WILLEFREIGEN AL MONSORALE OF TOPE. DUDO HIGH THEA GRUPE CERD FG - EDULUS ROB DEBOFLEX 2.5 T/F C+75 - EDULUS ROB OWNER: CARLINGUAL ALPINE RESONT LID 2090 CARDRONA MALLEF ROAD PROJECT CARDRONA CHILDCARE - REFURBISHMENT 2090 CARDRONA MALLEF ROAD PROJECT CARDRONA CHILDCARE - REFURBISHMENT 2090 CARDRONA MALLEF ROAD PROJECT CARDRONA CHILDCARE - REFURBISHMENT 2090 CARDRONA MALLEF ROAD PROJECT CARDRONA CHILDCARE - REFURBISHMENT 2090 CARDRONA MALLEF ROAD PROJECT AUGUSTA STANDARD STREET AUGUSTA STANDARD STREET AUGUSTA STANDARD STREET AUGUSTA STANDARD 123 MF BELLINES CARDONA CHILDCARE - REFURBISHMENT 2090 CARDRONA MENU ESELAND DESPALE 123 MF BELLINES CARDONA CHILDCARE - RESURBISHMENT 2090 CARDRONA MENU ESELAND DESPALE 123 MF BELLINES BELL

ROOF SLOPE CONVERSION TABLE

Slope			
Angle (Degrees)	Gradient		Grade (%)
	Υ	Х	
0.1	1	573.0	0.17
0.2	1	286.5	0.35
0.3	1	191.0	0.52
0.4	1	143.2	0.70
0.5	1	114.6	0.87
0.57	1	100.0	1.0
0.6	1	95.49	1.05
0.7	1	81.85	1.22
0.8	1	71.62	1.40
0.9	1	63.66	1.57
1.0	1	57.29	1.75
2.0	1	28.64	3.49
3.0	1	19.08	5.24
4.0	1	14.30	6.99
5.0	1	11.43	8.75



WHO ARE WE?

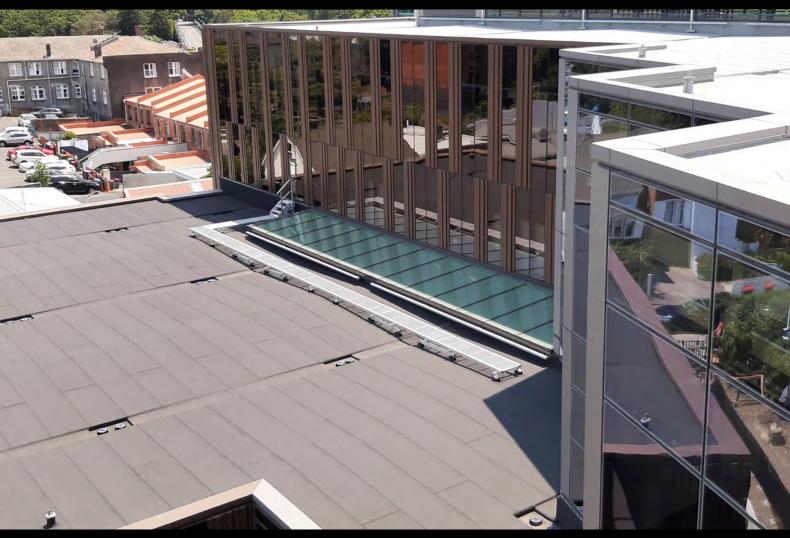
Equus Industries provides technical waterproofing solutions for Architects, Engineers, Property Managers, and Contractors in the building industry. One system does not fit all.

Equus can provide complete solutions, systems, specifications, technical support and warranties.

Equus is the Authorised Distributor for SOPREMA in New Zealand. SOPREMA was founded in 1908 in France and has over 100 factories worldwide producing waterproofing materials and thermal insulation.







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