INSTALLATION METHODS FOR FOUNDATION MEMBRANES

SOPREMA®

4.0. INSTALLATION METHODS FOR FOUNDATION MEMBRANES

4.1. TORCHING TECHNIQUE

4.1.1. Flame distance

Maintain the appropriate distance between the end of the torch head and the roll. This distance varies from approx. 150 mm to 300 mm, depending on surrounding conditions. The appropriate distance must be maintained to obtain maximum heat and proper diffusion of the flame. The hottest part of the flame is located from approx. 100 mm to 250 mm.

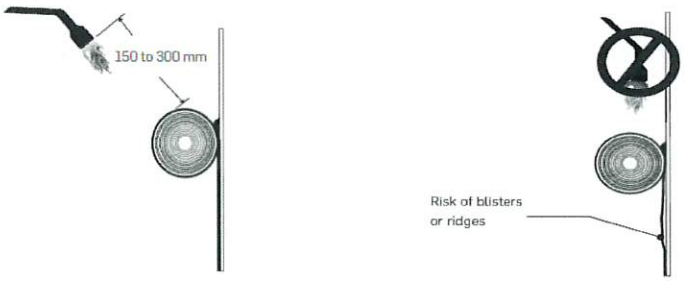
4.1.2. Torching vertically and horizontally

Before starting to weld, you must know the product you are welding and know the type of material to which you are welding this product.

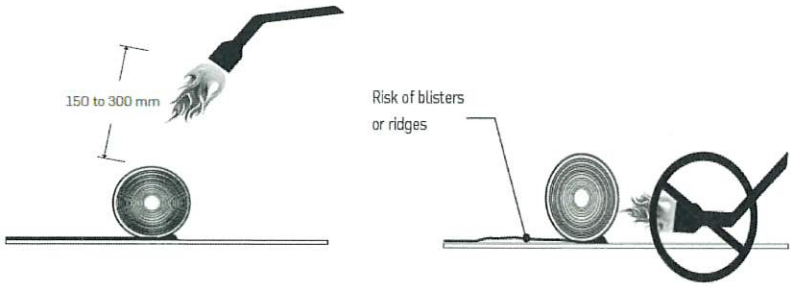
The membrane can be applied vertically or horizontally. When vertically applied, start from the bottom of the foundation and work your way up. When horizontally applied, start at one end of the surface and work your way in the opposite direction from there.

Never direct the flame between the roll and the substrate. This could trap air under the membrane and cause blisters or ridges.

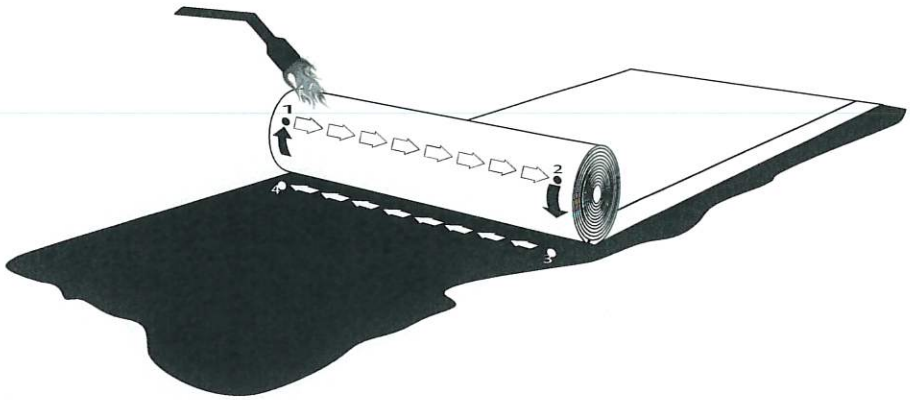
VERTICAL WELDING



HORIZONTAL WELDING

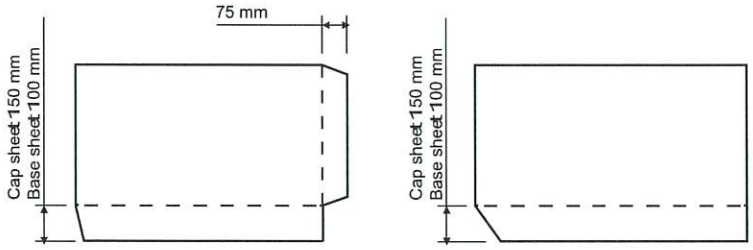


The flame should be directed at the top surface of the roll in order to heat it just enough to soften the bitumen to obtain a small bead of melted bitumen in front of the membrane as it is unrolled onto the substrate. The weld will be more effective if the movement of the torch, and hence its flame, is continuous and even, in a rectangular pattern.

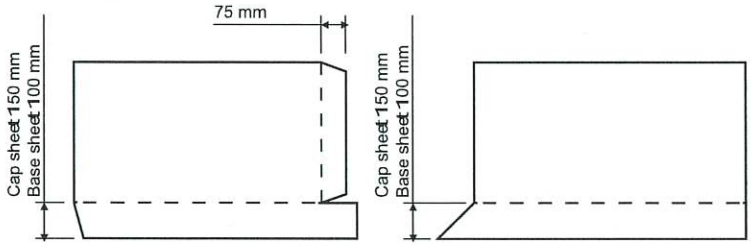


4.1.3. Membrane Cutting

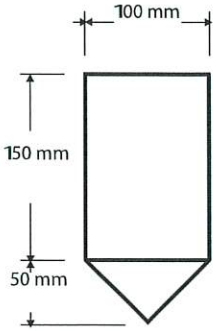
Inside corners



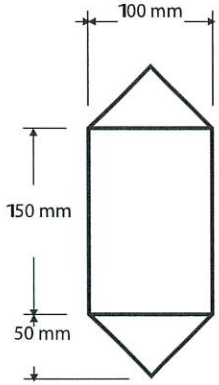
Outside corners



Gussets without cant strip



Gussets with cant strip



Gussets are mandatory at every angle, whether interior or exterior, at the transition of the field surface.

4.2. WATERPROOFING OF BOTTOM SLAB

COLPHENE BSW UNI NG / COLPHENE BSW H installation of bottom slab applies for both, conventional foundations (post-applied system) and blindside wall systems (pre-applied system).

4.2.1. COLPHENE BSW UNI NG / COLPHENE BSW H

Single ply

STEP 1: Apply **COLPHENE BSW UNI NG/COLPHENE BSW H** loose laid on blinding concrete (or prepared and well compacted substrate with **GEOLAND PP FR** on top).

Ensure minimum 100/120 mm side overlap and minimum 150 mm end lap between each strip.

Stagger laps in order to avoid excessive layering. End laps will be staggered by at least 300 mm.

During installation, the self-adhesive part of DUO SELVEDGE allows to maintain its position and allows slight modification.

STEP 2: Seal all side laps and end laps by heat-welding the selvedge with a propane torch or using an electrical hot air welder or automated electrical hot air welder.

Double ply: COLPHENE BSW UNI NG/COLPHENE BSW H + SOPRALENE FLAM 180

STEP 1: Apply **SOPRALENE FLAM 180** as per *STEP 1* and *STEP 2* above.

STEP 2: Apply **COLPHENE BSW UNI NG/COLPHENE BSW H** loose laid over **SOPRALENE FLAM 180.** Heat-weld the laps using a propane torch.

For minimum overlaps and staggering of laps refer to single ply *STEP 1*.

4.3. WATERPROOFING OF FOUNDATION WALLS

4.3.1. Conventional Foundations

4.3.1.1. COLPHENE 3000

Single ply

STEP 1: Prime the substrate using **ELASTOCOL STICK** or **ELASTOCOL STICK H_2O** primer. The substrate must be smooth and clean.

STEP 2: After the primer is completely dry, begin installation of a 300 mm reinforcement strip membrane centered on the corner of all interior and exterior foundation angles. This

strip must be applied directly on the surface, with no gaps between the surface and the membrane. Outside corners should be double lapped.

STEP 3: Install a 300 mm reinforcement strip membrane on the footings, making sure that 150 mm is installed on the foundation wall and 150 mm is installed on the footing. Peel off the top of the silicone release film and stick the membrane on, making sure it is carefully aligned. Slowly remove the silicon release film while making sure the membrane is fully adhered. Longitudinal overlaps must measure at least 75 mm, while transversal overlaps must be at least 150 mm. Use a 300 mm membrane roller to apply pressure over the entire surface of the membrane, to ensure sufficient adhesion and to prevent membrane movement during the installation of concrete.

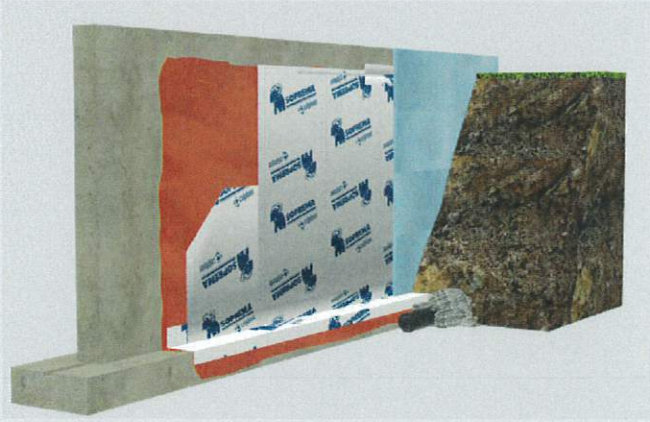
NOTE: The uppermost edge of each strip must be (temporary) mechanically fastened to the substrate using ≥ 40 mm diameter round plates and appropriate fasteners spaced at every 250 mm on centre. Alternatively, you may use a wooden batten.

The top end must be mechanically attached using a non-corrosive metal pressure seal and sealed with **SOPRAMASTIC** or **SOPRAMASTIC ALU** if exposed. Use **SOPRAMASTIC** to seal details and critical areas.

STEP 4: Install the XPS insulation panel or **SOPRADRAIN** board directly on the membrane with adhesive or fasteners while avoiding the perforation of the membrane. Any waterproofing membrane that can be seen after filling must be protected from UV rays and mechanical damage.

Double ply: COLPHENE 3000 + COLPHENE 3000

Apply the first layer as per previous section. For the second layer, repeat *STEPS 2* to *4*. STEP 1 is only needed if more than 24 hours have passed between the application of the first and second layer.



4.3.1.2. Heat-welded membranes

SOPREMA solutions: SOPRALENE FLAM 180 /
SOPRALENE FLAM JARDIN CAP /
SOPRASUN PLUS 3 /
SOPRAGUM GARDEN 4 PLUS

Single ply

STEP 1: Prime the substrate using **ANTIROCK PRIMER**. The substrate must be smooth and clean.

STEP 2: After the primer is completely dry, begin installation of a 300 mm wide reinforcement strip membrane centered on the corner of all interior and exterior foundation angles using a propane torch. This strip must be applied directly on the surface, with no gaps between the surface and membrane. Outside corners should be double lapped.

Install a 300 mm reinforcement strip membrane on the footings, making sure that 150 mm is installed on the foundation wall and 150 mm is installed on the footing.

STEP 3: Continue to heat weld the membrane onto the entire foundation wall, ensuring it is aligned with the previous roll. Longitudinal overlaps must measure at least 75 mm, while transversal overlaps must be at least 100 mm.

STEP 4: Seal the top end and all overlaps using a trowel and torch. The top end must be mechanically attached using metal edging and sealed with **SOPRAMASTIC**. Use **SOPRAMASTIC** to seal details and critical areas.

Tears and holes must be repaired using the same membrane. The strip must be 100 mm wider than the perforated or torn surface, and welded into place with a propane torch.

STEP 5: After backfilling, we recommend covering the waterproofing membrane with a **SOPRADRAIN** drainage board, mechanically fastened above the top edge of the membrane, or a XPS insulation panel directly on the membrane with adhesive or fasteners while avoiding the perforation of the membrane. Backfilling should be done immediately after the panels are installed.
Any waterproofing membrane that can be seen after filling must be protected from UV rays and mechanical damage.

Double ply: SBS-modified bitumen heat welded membrane + SOPRALENE FLAM 180 or SOPRALENE FLAM JARDIN CAP

APP-modified bitumen heat welded membrane + SOPRASUN PLUS 3 or SOPRASUN GARDEN 4 PLUS

STEP 1: Apply the first layer as per *STEPS 1-5* from previous section.

STEP 2: Install a 300 mm reinforcement strip membrane on the footings, making sure that 150 mm is installed on the foundation wall and 150 mm is installed on the footing.

STEP 3: To install **SOPRALENE FLAM 180/SOPRALENE FLAM JARDIN CAP** or **SOPRASUN PLUS 3/SOPRASUN GARDEN 4 PLUS**, heat weld the membrane onto the entire foundation wall, ensuring it is aligned with the previous roll.

STEP 4: Longitudinal overlaps must measure at least 75 mm, while transversal overlaps must be at least 100 mm.

Seal the top end and all overlaps using a trowel and torch.

The top end must be mechanically attached using metal edging and sealed with **SOPRAMASTIC** or **SOPRAMASTIC ALU** if exposed. Use **SOPRAMASTIC** to seal details and critical areas.

Tears and holes must be repaired using the same membrane. The strip must be 100 mm wider than the perforated or torn surface, and welded into place with a propane torch.

* SOPRALENE FLAM JARDIN may require additional lead time for production and a minimum order.

4.3.2. Blindside Foundation Walls

4.3.2.1. COLPHENE BSW V

Single ply

STEP 1: Coat the drainage board with **ELASTOCOL STICK** primer before installing the vertical self-adhesive waterproofing membrane.

STEP 2: Install the **COLPHENE BSW V** waterproofing membrane vertically by removing the silicon release film.

Mechanically fasten the top of the membrane to the substrate using ≥ 40 mm diameter round plates and appropriate anchors every 300 mm from centre to centre.

Use a 300 mm membrane roller to apply pressure over the entire surface of the membrane to ensure sufficient adhesion and to prevent membrane movement during installation of concrete.

The uppermost edge of each strip must be (temporary) mechanically fastened to the substrate using ≥ 40 mm diameter round plates and appropriate fasteners spaced at every 250 mm on center. These fasteners are installed temporary.

Ensure a minimum of 100 mm side overlap between each strip with 55 mm self-adhesive bitumen and 45 mm sealed by heat-welding using a propane torch and a round nosed trowel or electrical hot air welder with a 125 mm membrane roller.

Horizontal joints shall be aligned and overlapped by minimum 150 mm covering all temporary fasteners.

Note: After pouring of the concrete of the 1st level, it is recommended to remove the temporary fastening in order to avoid possible tears in case of major settlement in subsequent phases.

STEP 3: All angle changes, inside and outside corners, as well as cold joints must be reinforced by installing an additional 300 mm reinforcement strip membrane either fully heat-welded with a torch (**COLPHENE BSW UNI NG/ COLPHENE BSW H**) or self-adhered (**COLPHENE BSW V**) over primed surface centered in the angle or on the joint. All membrane terminations must be sealed by heat-welding.

Double ply: COLPHENE BSW V + COLPHENE BSW UNI NG/ COLPHENE BSW H

STEP 1: Apply the first layer as per *STEPS 1-3* from previous section.

STEP 2: Install by heat-welding a 300mm reinforcement strip membrane using a propane torch. The strips should be centered and cover all horizontal joints.

STEP 3: Apply **COLPHENE BSW UNI NG/COLPHENE BSW H** on vertical blind side walls, heat-weld with a propane torch.

The uppermost edge of each strip must be (temporary) mechanically fastened to the substrate using ≥ 40 mm diameter round plates and appropriate fasteners spaced at every 250 mm on center. These fasteners are installed temporary.

STEP 4: Ensure a minimum of 100 mm side overlap between each strip with 55 mm self-adhesive bitumen and 45 mm sealed by heat-welding using a propane torch and a round nosed trowel or electrical hot air welder with a 125 mm membrane roller.

Horizontal joints shall be aligned and overlapped by minimum 150 mm covering all temporary fasteners.

STEP 5: Reinforce all angle changes, inside and outside corners as well as cold joints, by installing an additional 300 mm reinforcement strip membrane fully heat-welded with a torch centered in the angle or on the joint. All membrane terminations must be sealed by heat-welding.

Install a 300 mm reinforcement strip membrane either fully heat-welded with a torch over primed surface centered on all horizontal joints. All membrane terminations must be sealed by heat-welding.

4.4. MEMBRANE TERMINATION

The membrane's termination shall be done at least 150 mm above the finished ground level. The membrane is mechanically fixed at the top using 4 fasteners per meter (fasteners adapted to the support + distribution elements consisting of washers or continuous profiles).

The upper part of the waterproofing will be treated:

- either by a non-corrosive metal strip (pressure seal) with **SOPRAMASTIC** or **SOPRAMASTIC ALU** if exposed.
- either by a reglet detail, a K-profile or a pressure seal with **ALSAN FLASHING JARDIN** covered with granules or by a hard protection.

INSTALLATION METHODS FOR JUNCTIONS AND DETAILING

SOPREMA®

5.0. INSTALLATION METHODS FOR JUNCTIONS AND DETAILING

5.1. CONVENTIONAL FOUNDATIONS

5.1.1. Horizontal junctions (between bottom slab and wall)

As the pre-applied membranes are already installed, the vertical post applied system (single or double ply) is welded directly on the pre-applied membrane without additional primer.

5.1.2. Vertical juntcions (between walls)

A chamfer edge (cant strip) will be installed along the vertical junctions. The vertical junction will be reinforced by adding a 500 mm strip of COLPHENE 3000 or the torch-applied membrane used.

Stagger all side from the vertical junction by at least 150 mm.

5.2. BLINDSIDE WALL FOUNDATIONS

5.2.1. Horizontal junctions (between bottom slab and wall)

5.2.1.1. Single ply

- Install COLPHENE BSW V as per section 4.3.2.1. The first ply should start at a minimum of 500 mm above the reinforcement bars of the bottom slab, and should extend by at least 200 mm into the bottom slab (horizontally).
- Follow steps on section 4.2.1 to install COLPHENE BSW UNI NG/COLPHENE BSW H. Torch the membrane onto the 200 mm COLPHENE BSW V overlap.
- The angle joint will be reinforced by heat-welding an additional COLPHENE BSW UNI NG/COLPHENE BSW H strip of 500 mm (250 mm horizontal and 250 mm vertical, as shown in the 3D build up in section 9.3).

NOTE: The angle will be prepared by a chamfer edge.
The use of prefabricated chamfer edge is possible.

5.2.1.2. Double ply

- Install the first vertical ply of COLPHENE BSW V as per section 4.3.2.1. This first ply should start at a minimum of 500 mm above the reinforcement bars of the bottom slab, and should extend by at least 200 mm into the bottom slab (horizontally).
- Follow steps on section 4.2.1 to install the first horizontal ply (SOPRALENE FLAM 180). Torch the membrane onto the 200 mm COLPHENE BSW V overlap.
- The second vertical ply (COLPHENE BSW UNI NG/ COLPHENE BSW H) is installed as per section 4.3.2.1. on the first layer already in place. The end of the membrane should extend by at least 200 mm into the bottom slab (horizontally).
- Before installing the last ply (horizontal), reinforce the angle jount by heat-welding an additional COLPHENE BSW UNI

NG/COLPHENE BSW H strip of 500 mm (250 mm horizontal and 250 mm vertical, as shown in the 3D build up in section 9.6).

- Finally, install the second horizontal ply (COLPHENE BSW UNI NG/COLPHENE BSW H) to the bottom slab (section 4.3.2.1).

5.2.2. Vertical junctions (between walls)

A chamfer edge (cant strip) will be installed along the vertical junctions.

The vertical junction will be reinforced by adding a 500 mm strip of COLPHENE BSW V or COLPHENE BSW UNI NG/COLPHENE BSW H.

Stagger all sides from the vertical junction by at least 150 mm.

5.3. SPECIFIC DETAILS TREATMENTS

5.3.1. Pipe penetrations and anchorage

Please see details 9.16 and 9.17.

5.3.2. Vertical bars fixing

Fixing of vertical bars are, when possible, to be avoided.

In the special case it has to be done, hot melted bitumen will be used to seal the fixings.

5.3.3. Piles

The treatment of pile heads will be the subject of a specific study for each project and will be validated by SOPREMA's Technical Team (contact info@soprema.com.au). Please see detail in sections 9.18 to 9.20.

5.3.4. Expansion joint

Expansion joint (up to 50 mm gap) will be performed using SOPRAJOINT membranes.

NOTE: For seismic joints, a specific study will have to be done (minimum and maximum structural gap movements).

INSTALLATION METHODS FOR DRAINAGE BOARDS

SOPREMA®

6.0. INSTALLATION METHODS FOR DRAINAGE BOARDS

6.1. ROLES OF DRAINAGE BOARDS

- Allow the installation of waterproofing membranes on a smooth and dry substrate
- Spread eventual excess of hydrostatic pressure
- Limit the hydrostatic pressure acting on retaining walls

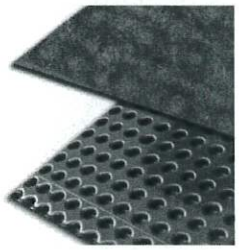
> Note: In the case of aggressive water (Riznar index less than 4), the use of the drainage panels may only be considered as a short-term protection.

6.2. CONVENTIONAL FOUNDATIONS

It is necessary to protect the waterproofing layer(s) from puncture before backfilling operations and eventual settlement.

Different kinds of protection can be used depending on the height of the backfill and of the particle size of the filler materials used.

SOPRADRAIN or EPS or XPS insulation boards (adapted for this use)



EPS and XPS insulation boards are glued to the vertical membrane with **SOPRACOLLE 300N** dots and bads of approx. 200 g/m^2. A **SOPRADRAIN** board should then be mechanically fixed at 100 mm higher than the insulation board termination.

Other solutions may be used if they provide full protection of the waterproofed surface.

6.3. BLINDSIDE FOUNDATION WALLS

Install the drainage board with the geotextile facing the soil retention system. The drainage board can cover cracks and holes from 25 to 50 mm in width and depth. Cracks or holes in the substrate exceeding these measurements should be repaired with mortar, shotcrete or plywood (mechanically fastened to the substrate) prior to installing the drainage board.

Fasten the board using mechanical anchors adapted to the substrate and washers with a minimum diameter of 25 mm. Install an anchor at a minimum of every 600 mm at the top end with a ratio of one anchor per square metre on the board.

Note: The number of anchors required may increase depending on site and substrate conditions.

Use additional anchors as needed around the edges of the solid substrate supporting the board.

CONCRETE AND BACKFILLING

SOPREMA®

7.0. CONCRETE AND BACKFILLING

7.1. CONCRETE

7.1.1. Steel reinforcement installation

Before installing the reinforcement, a visual inspection of installed membranes shall be done to check for any damages. Any defects must be repaired. The reinforcement must be laid in such a way as not to damage the membranes.

NOTE: Do not install any concrete layers between the structural slab and the membrane.

7.1.1.1. Horizontal sections

For horizontal sections, special attention will be paid to avoid punching membranes. Thus, the presence of spacers is required. Plastic or wooden holds are not allowed. Linear concrete spacers will be preferred. Punctual spacers are permitted provided that the bearing surface is flat and sufficient (minimum dimension 50 mm x 50 mm). The distance between two spacers will be 60 cm maximum.

In all cases, and in particular when the reinforcement is heavy, it will be ensured that the distribution of spacers can limit the static punching to a value less than 50% of that indicated on the data sheets of the products used.

7.1.1.2. Vertical sections

For vertical sections, plastic spacers are allowed.

Fixing through the membranes will be treated as presented in 4.7.3.

7.1.2. Concrete installation

7.1.2.1. Minimum RCC Characteristic

To prevent migration of water between membrane and the structure, the concrete must have minimum strength (> 20 MPa) and minimum cohesion (> 1.5 MPa).

Concrete composition and properties according to EN 206-1 minimum requirements.

The minimum thickness of reinforced cement concrete shall be 100 mm in order to have the necessary heat input for bonding between the membrane. Bars must be surrounded of minimum 30 mm of concrete when in contact with membrane. Spacers must ensure compliance with this recommendation.

A minimum concrete compressive strength of 10 MPa is recommended prior to stripping formwork supporting COLPHENE BSW membranes (7 days minimum period for curing concrete). Premature stripping may result in loss of adhesion between the membrane and concrete.

The COLPHENE BSW system does not impact the concrete's class of exposure to external aggressions.

7.1.2.2. Precautions for concrete pouring

When pouring the structural concrete, the membranes must be clean and shall have no stagnant water.

Concrete will be poured directly onto the membranes, being careful not to damage them (especially in vertical areas of great height). The concrete will be vibrated on the entire surface.

In order to limit the risk of degradation of the membrane surface, it is advised to pour the concrete within 60 days of membrane installation.

7.2. BACKFILLING

In the case of post-applied installation structures, the installation of the backfill by the trade concerned must be done with all the precautions to avoid any damages on the membrane and/or its protection, taking into account the performance of the chosen protection.

NOTE: Structures not subject to hydrostatic pressure should be drained. The water drained must be gathered by a collector placed at the bottom of the wall and then evacuated through a suitable network.

SAFETY MEASURES

SOPREMA®

8.0. SAFETY MEASURES

8.1. IMPORTANT PRELIMINARY INSTRUCTIONS

SOPREMA products must be applied by qualified workers who have received appropriate safety training (such as proper use of fire extinguishers) to deal with accidents caused by the use of combustible or flammable materials, liquefied propane gas, open flames and installation equipment.

Before commencing work on site, it is imperative that all employees are made aware of the following guidelines.

Before using flammable liquids and mastics, consult the appropriate use instructions (labels, technical data sheets, material safety data sheets, etc.).

Before using products that may be hazardous, including products containing volatile solvents, consult the appropriate Material Safety Data Sheets. Only use these products in well-ventilated areas and only use primers that do not contain volatile solvents in areas with poor or no ventilation.

Shut off fans and blowers near the torching area.

Identify the construction and composition of the wall systems before torching.

Ensure the site is clean and free of waste material.

Notify building occupants of any torching activities, as appropriate, including the following persons:

- Person in charge of security
- Person in charge of the department
- Person in charge of maintenance

At the end of each day, the contractor must meticulously inspect the membrane and ensure it is correctly installed.

8.2. TORCHING SPECIAL PRECAUTIONS

Follow the specifications, notices, documents, and guidelines of Workers Safety Standards.

Wear proper clothing: gloves, long sleeve shirts, trousers, security footwear, eye protection and a helmet. Do not wear clothing made from synthetic fabrics. Remove all clothing that comes into contact with solvents.

The torch dedicated to the torching of waterproofing membranes can produce temperatures above 1,100°C. Avoid contact with materials sensitive to these temperatures, such as lead and plastic.

Do not work in an enclosed area where gas can accumulate.

Follow manufacturer's recommendations for torching-welding of membranes. Never torch a membrane to a readily flammable surface such as wood or any other surface for which this installation technique is not approved.

Never use a torch on substrates that have been recently covered by a solvent-based product (wait until the product is dry), near combustible materials, near full or partly filled containers containing flammable materials (keep open flame at least 3 m away), or directly on substrates considered combustible.

Avoid placing combustible materials near open flames.

Do not direct the flame through open penetrations.

Keep in mind that the flame can travel over long distances (several meters), through and beyond small openings. Take proper preventive safety measures.

Attach the torch to the fuel tank using a pressure regulator calibrated to the manufacturer's design pressure. The regulator should be equipped with a certified rupture check valve.

Shut off the torch when not in use. Never leave a lighted torch unattended. When the torch is not in use, always place it on its support, with the head pointing upwards. Make sure that it will stay in this position.

At all times, and especially before leaving job site, check for smouldering or concealed fires. In case of fire, follow the appropriate safety procedures. The site manager must make sure that workers remain on site for at least one hour after any welding activity.

To shut off the torch, close the valve on the propane tank first, then let the gas remaining in the hose burn off before closing the valve on the torch itself.

8.3. SPECIAL PRECAUTIONS FOR PROPANE GAS TANKS

Secure and fasten propane gas tanks in an upright position at least 3 m from open flames and in an easily accessible location to permit rapid shutoff.

Never attempt to defrost a gas tank with a flame. In cold weather, use specially designed heating blankets.

Handle gas tanks with care. Avoid shocks and protect their valves.

After each use, tightly close the gas tank valve, even if the tank is empty.

Propane is heavier than air. Check low areas for gas accumulation.

Ensure good air exchange on job sites. Never work in unventilated enclosed areas.

Do not store tanks in sunlight for long periods or at temperatures exceeding 40°C. Use only in well-ventilated areas.

Never puncture, throw away, or incinerate empty tanks.

Maintain strict compliance with local fire codes.

Smoking is forbidden while flammable material is being installed, and near storage areas.

8.4. SPECIAL PRECAUTIONS FOR PRIMER APPLICATION

Avoid all eye and skin contact; primers are toxic if inhaled.

Use a respiratory protection device approved by the local Work Health and Safety Regulations.

Wear chemical-resistant gloves (natural rubber, polyvinyl alcohol reinforced, neoprene, nitrite), safety goggles and clean protective garments that cover the arms and legs, to keep exposure to a minimum.

Contain spills using an absorbent product (e.g. vermiculite, clay or sand).

Use non-sparking tools to sweep or collect spills into containers. Cover without sealing hermetically and store in a well-ventilated waste storage area.

Carefully rinse the spill area with water. Do not dispose ofundiluted products in sewers.

Highly flammable. Keep out of sun and away from flames.

Never use ignition sources or smoke during application/use of products.

After application, wait until the solvent has evaporated before using the torch.

Keep enclosed spaces well-ventilated. Use forced ventilation if necessary.

8.5. MONITORING AFTER THE COMPLETION OF WELDING WORK

At the end of each workday, make sure there are no smouldering fires. A watchman must remain at the worksite for at least one hour after the completion of welding work. (The monitoring period may be longer in certain places. Requirements should be verified with local authorities.)

The watchman must have an infrared thermometer to take readings in high-risk areas. The readings must be taken every fifteen to twenty minutes. The temperature on the membrane surface should decrease between each reading.

The watchman must have an operational ABC fire extinguisher in his or her possession.

A telephone must be close by with the number of the local fire department. If a fire is suspected, the fire department must be called and the building evacuated.

At the end of the monitoring period, inspect the interior of the building with the owner's representative before leaving the worksite.

8.6. FIRE PRECAUTIONS

Strict compliance with local fire codes must be maintained.

Verify whether the owner has put in place an emergency measures program; if so, take it into account.

Always have an ABC fire extinguisher on hand, filled and in perfect working order during all installation operations on the construction site. There must be one easily accessible extinguisher near each torch. If possible, hook up a water hose on the roof.

When laying down the torch, make sure that the area is free of flammable or combustible materials.

Smoking is forbidden while flammable materials are being installed and close to where such materials are stored.

8.7. PRIMER AND LIQUID PRODUCTS

Smoking is forbidden near storage areas, while handling empty or full packaging, and during the installation of products.

Always have one minimum 6 kg multi-purpose dry chemical extinguisher in the liquid products application area.

Never puncture containers.

The type of application must be chosen and the substrate must be prepared so that no accumulation of the product is possible in any area.

Full and empty containers must be protected from sudden heat increases, especially in summer. They must be stored at least 10 m from any flame or ignition point.

Before using a torch on the job site, it is IMPERATIVE to retrieve all containers, full or empty, and put them in the storage area as described above.

The application of liquid products containing flammable solvents must be undertaken only after having verified the following: there are no flames nearby, there is no heating device nearby, there are no propane tanks in service or stored nearby and there is no gas channelling hooked up to an instrument in service within a 10 m radius of the application area.

After application, the product must be given enough time to dry before starting any work that involves torching. Never use a torch to accelerate the drying process.

8.8. FIRST AID MEASURES

Flush burns with cold water and seek immediate medical attention.

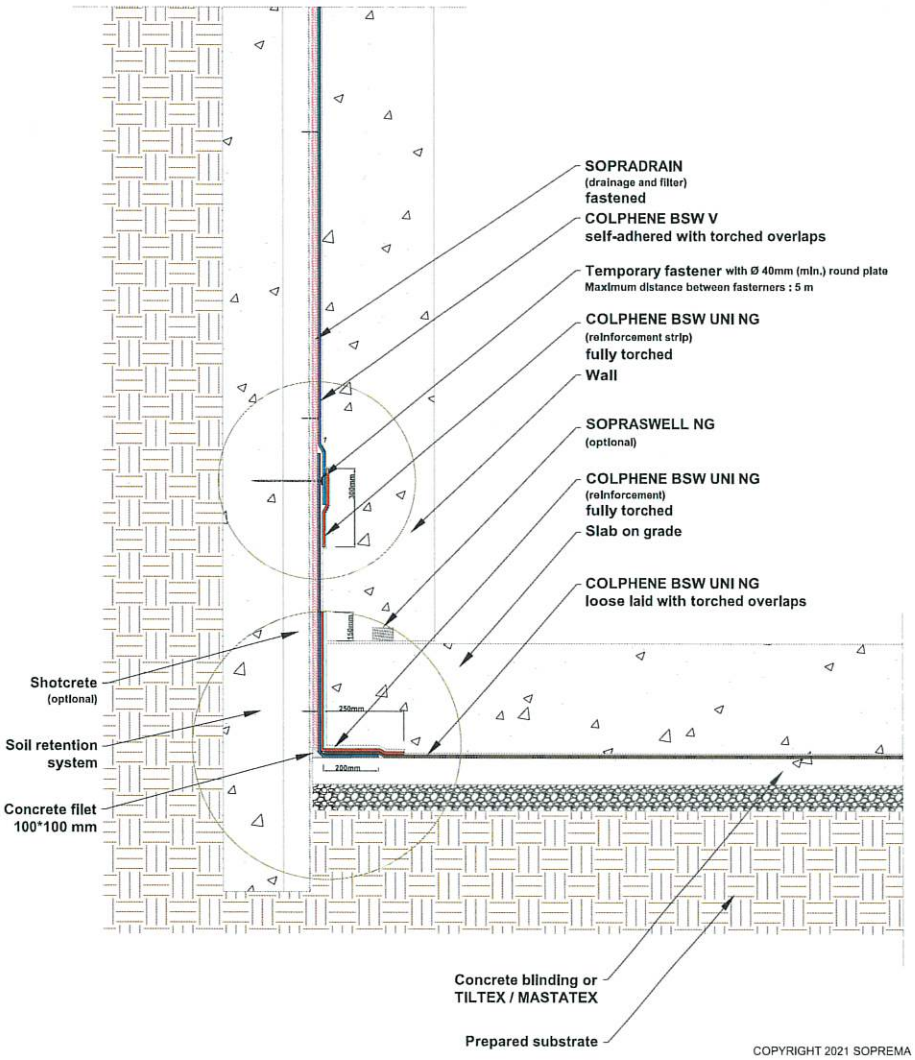
Should molten bitumen come into contact with eyes or skin, flush with cold water and seek immediate medical attention. Do not attempt to remove molten bitumen from skin or clean with a solvent. Should molten bitumen come into contact with clothing, flush with cold water.

DETAILS

SOPREMA®

9.0. DETAILS

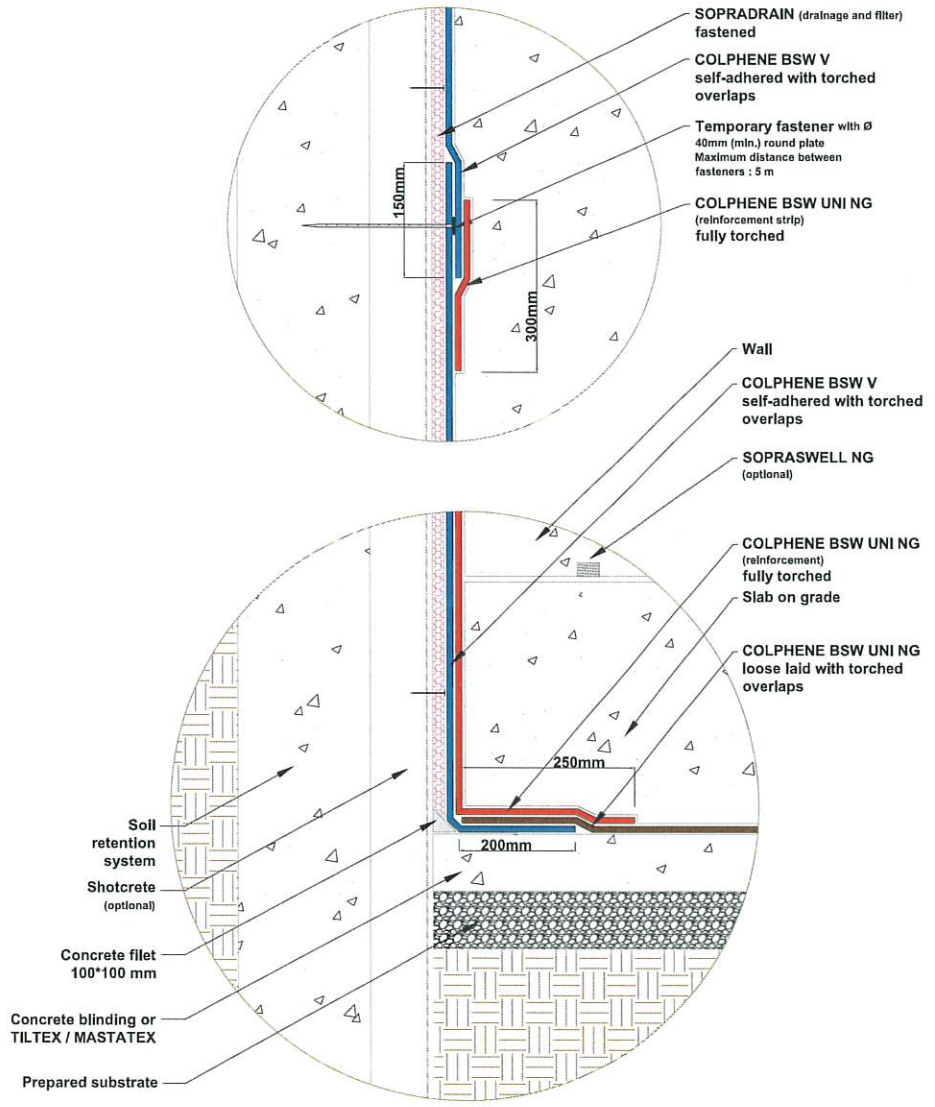
9.1. JUNCTION DETAIL: SINGLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

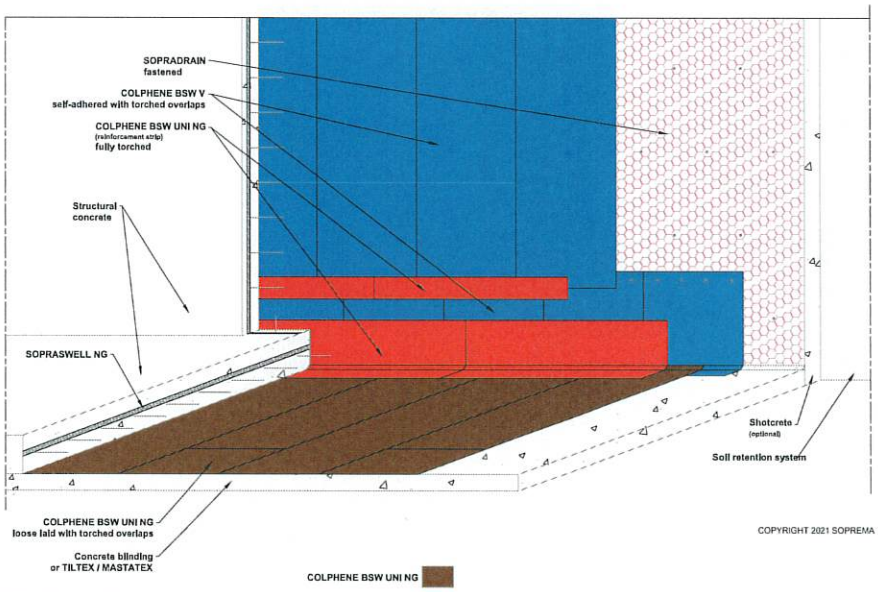
9.2. JUNCTION DETAIL: SINGLE PLY - ZOOM VIEW



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

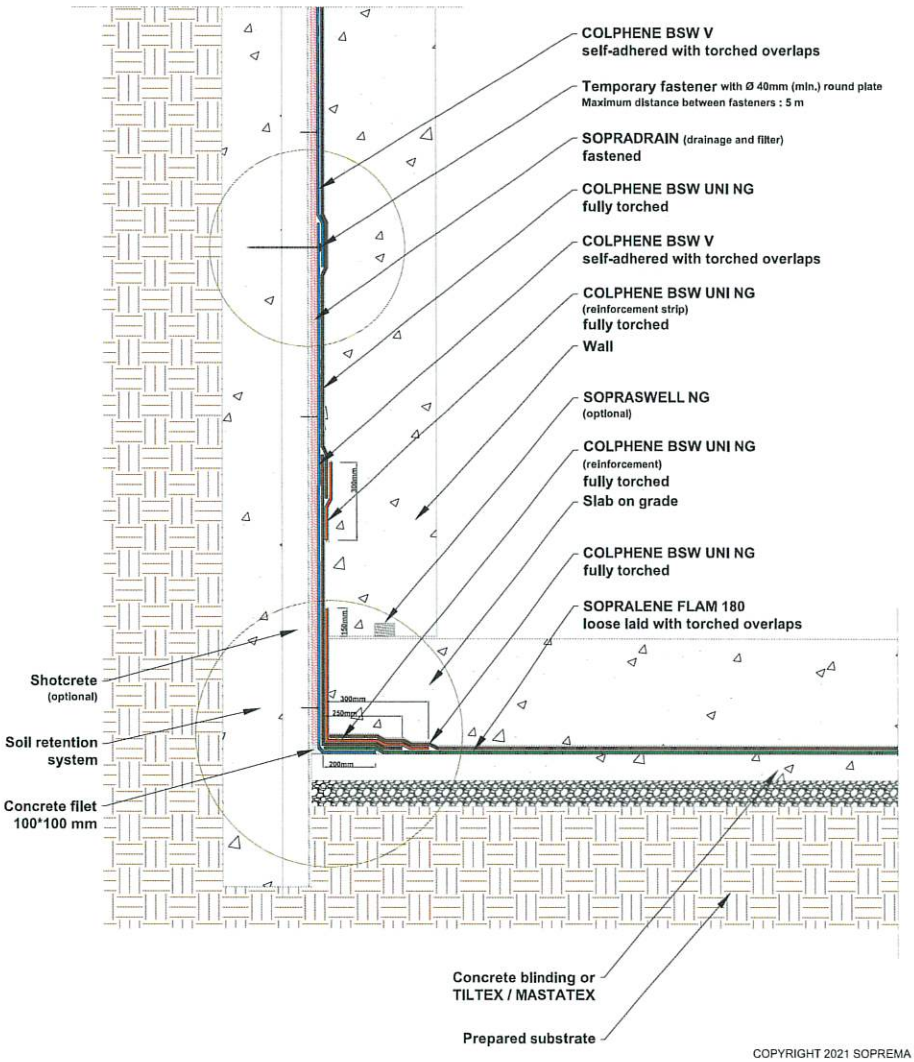
9.3. JUNCTION DETAIL: SINGLE PLY - 3D



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

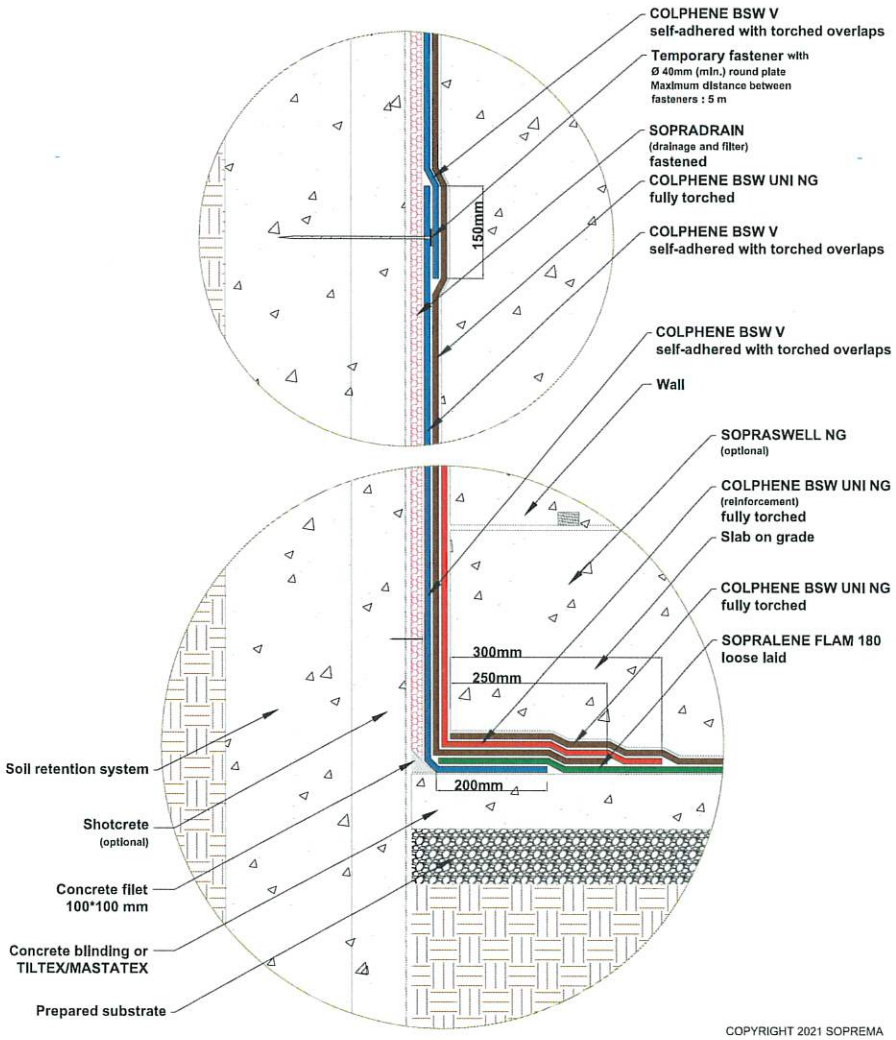
9.4. JUNCTION DETAIL: DOUBLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

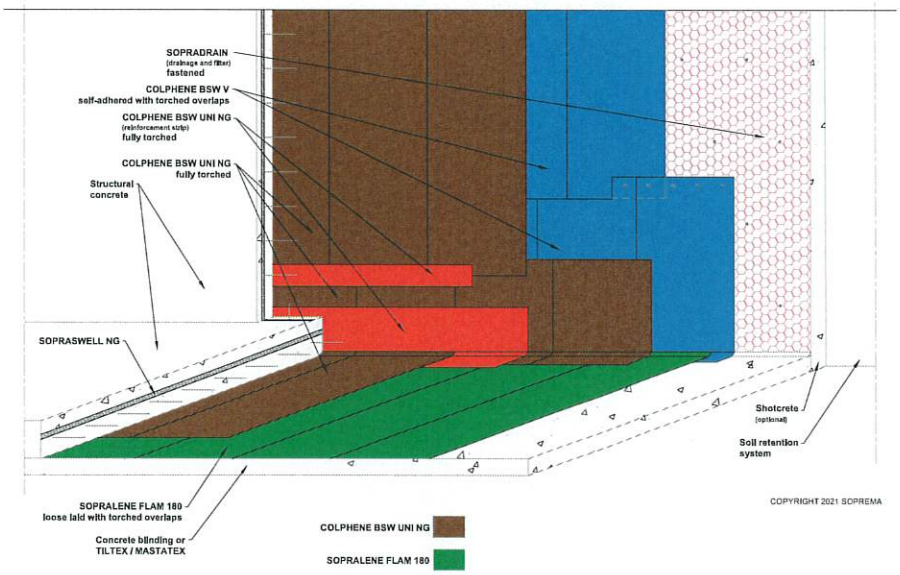
9.5. JUNCTION DETAIL: DOUBLE PLY - ZOOM VIEW



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

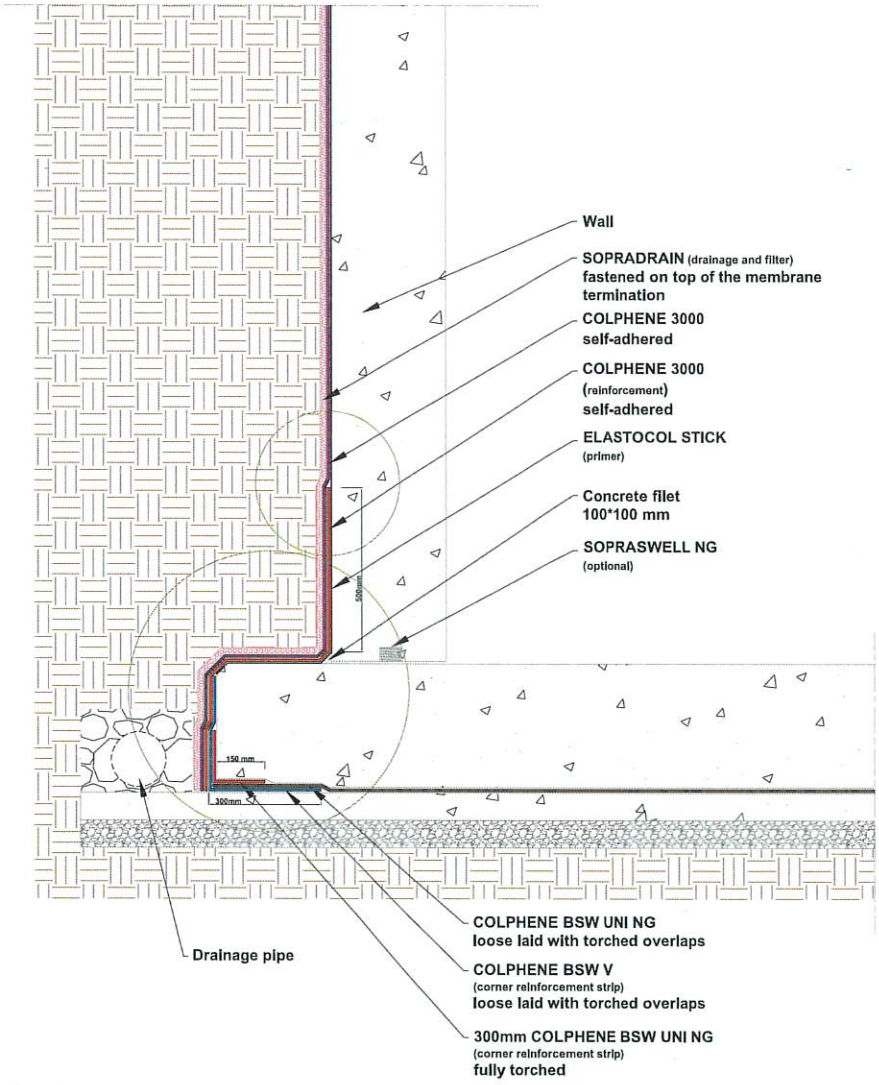
9.6. JUNCTION DETAIL: DOUBLE PLY - 3D



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.7. JUNCTION DETAIL COLPHENE 3000 - COLPHENE BSW UNI NG/H: SINGLE PLY

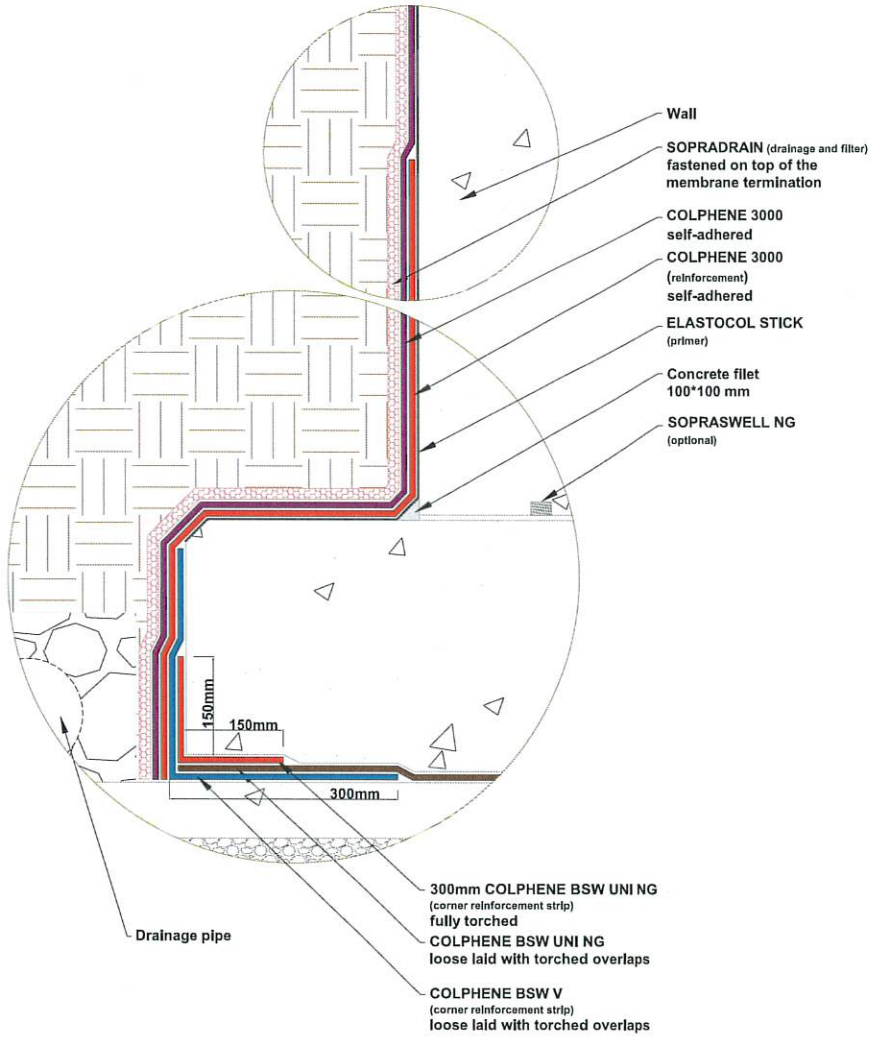


Without chamfer on all angles, a corner reinforcement must be previously applied

* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.8. JUNCTION DETAIL COLPHENE 3000 - COLPHENE BSW UNI NG/H: SINGLE PLY - ZOOM VIEW

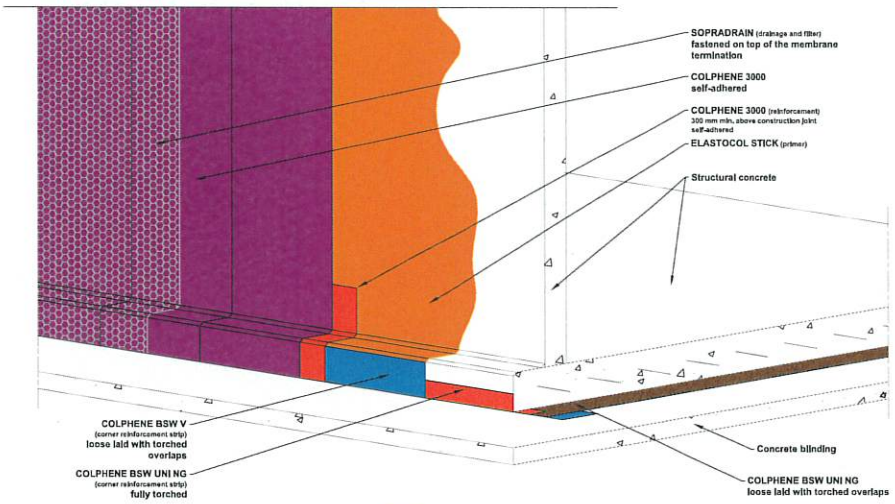


Without chamfer on all angles, a corner reinforcement must be previously applied

* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

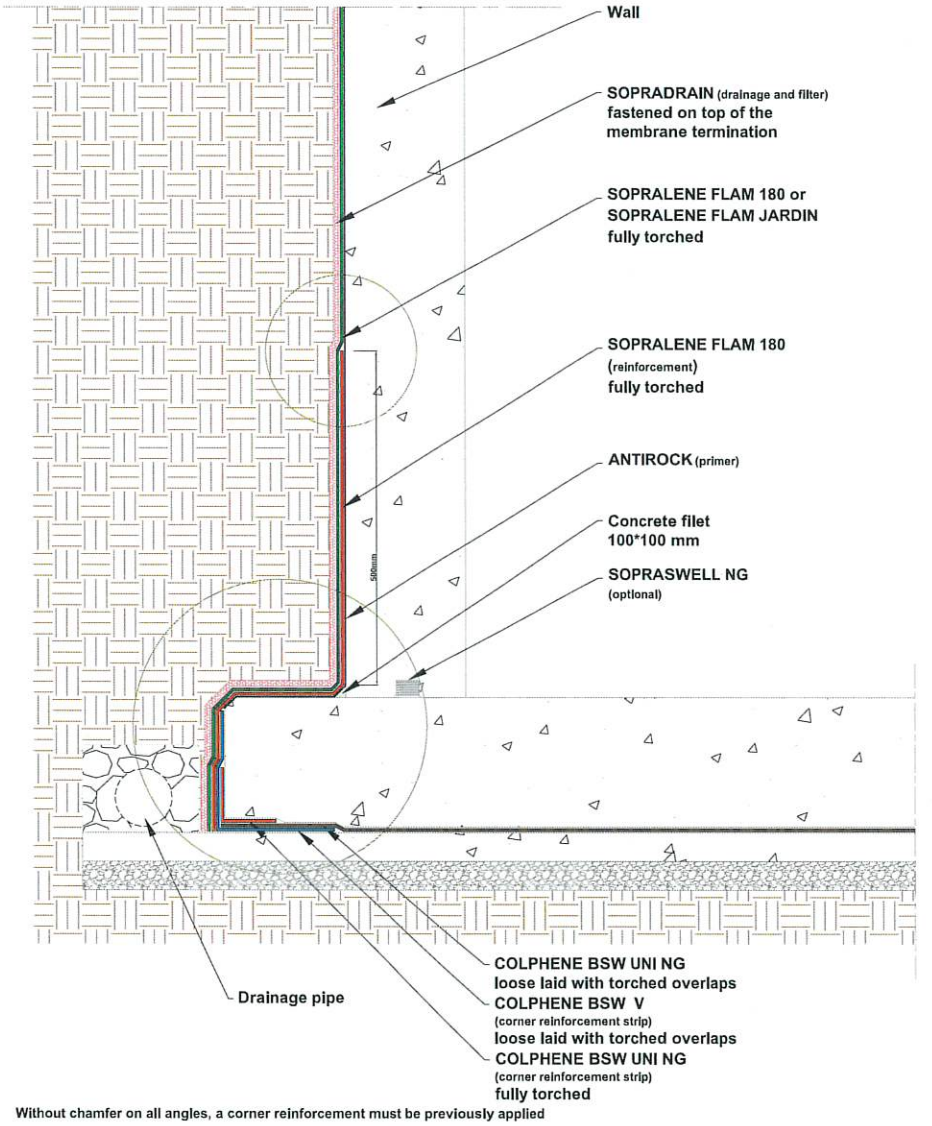
9.9. JUNCTION DETAIL COLPHENE 3000 - COLPHENE BSW UNI NG/H: SINGLE PLY - 3D



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.10. JUNCTION DETAIL POST-APPLIED TORCH-ON - COLPHENE BSW UNI NG/H: SINGLE PLY

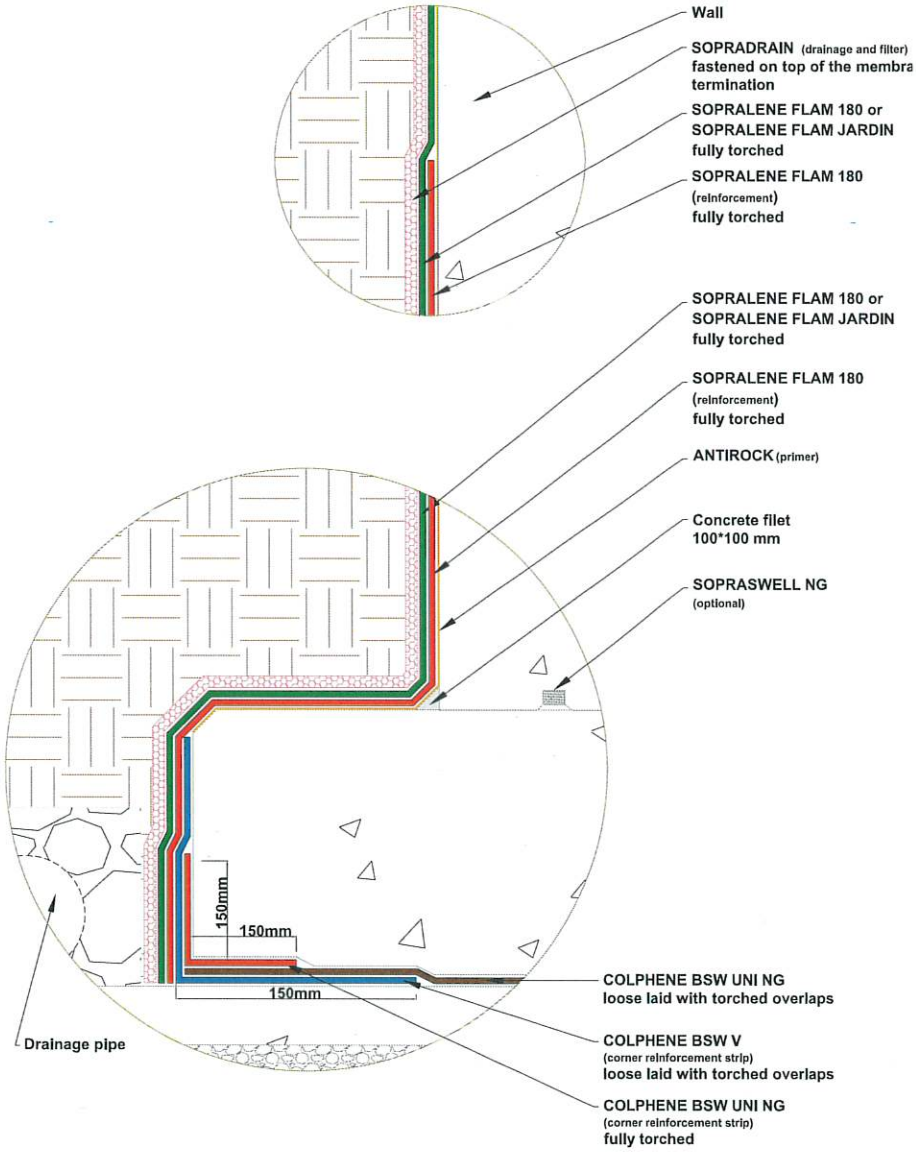


Without chamfer on all angles, a corner reinforcement must be previously applied

* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.11. JUNCTION DETAIL POST-APPLIED TORCH-ON - COLPHENE BSW UNI NG/H: SINGLE PLY - ZOOM VIEW

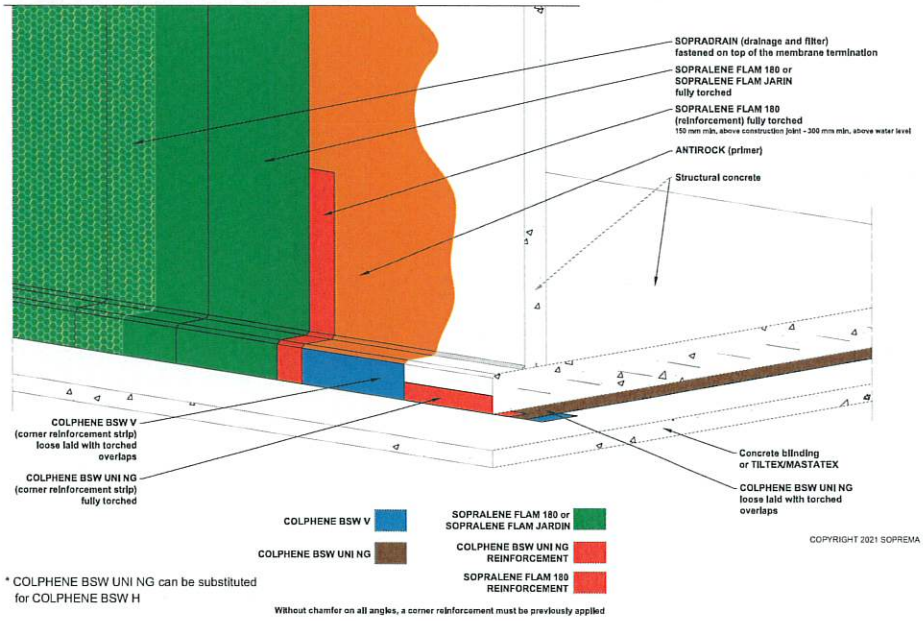


Without chamfer on all angles, a corner reinforcement must be previously applied

* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

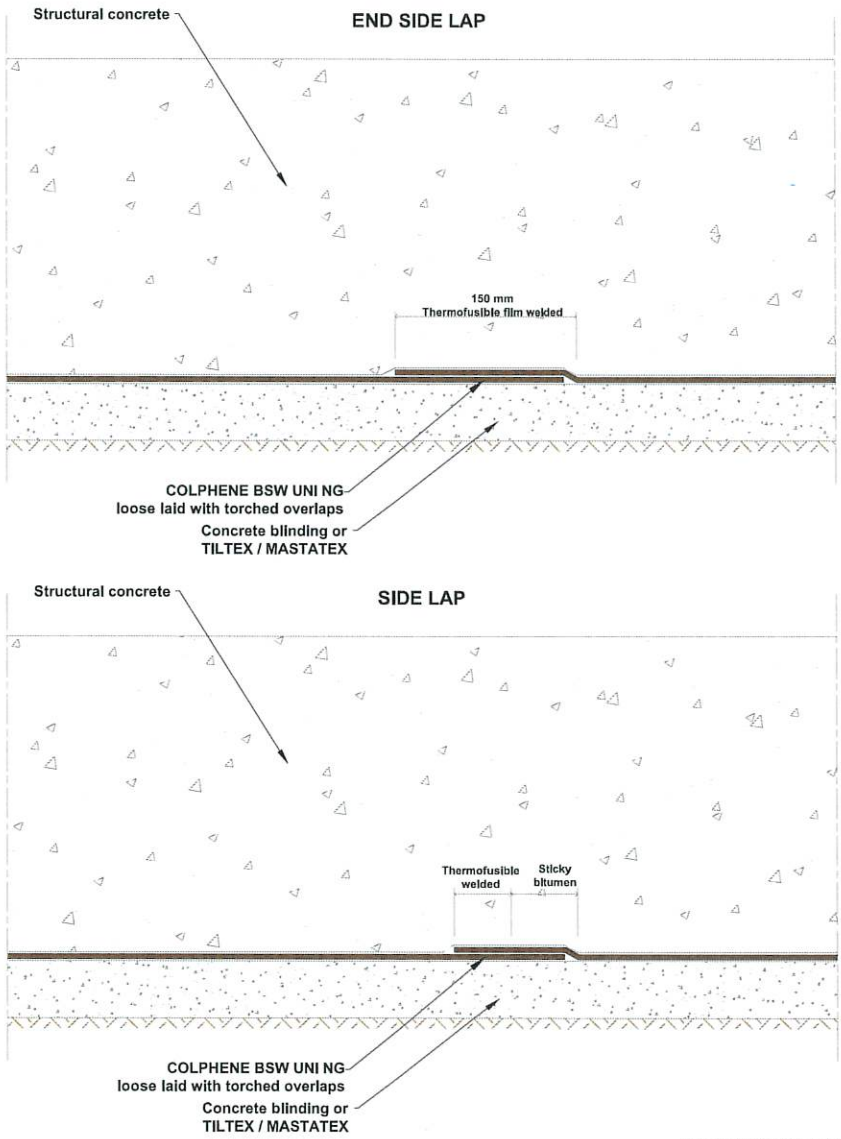
9.12. JUNCTION DETAIL POST-APPLIED TORCH-ON - COLPHENE BSW UNI NG/H: SINGLE PLY - 3D



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

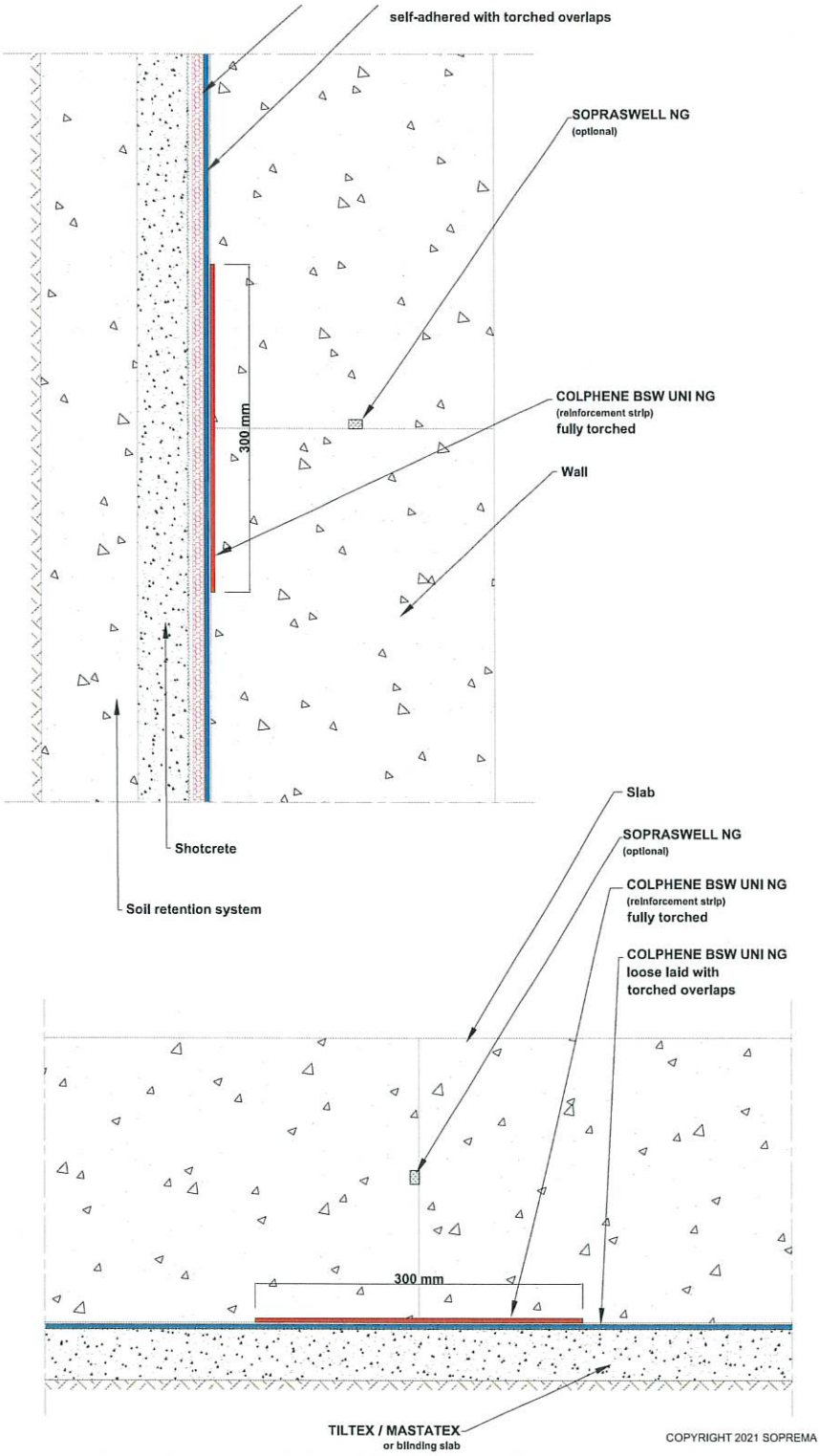
9.13. HORIZONTAL OVERLAP DETAIL: SINGLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

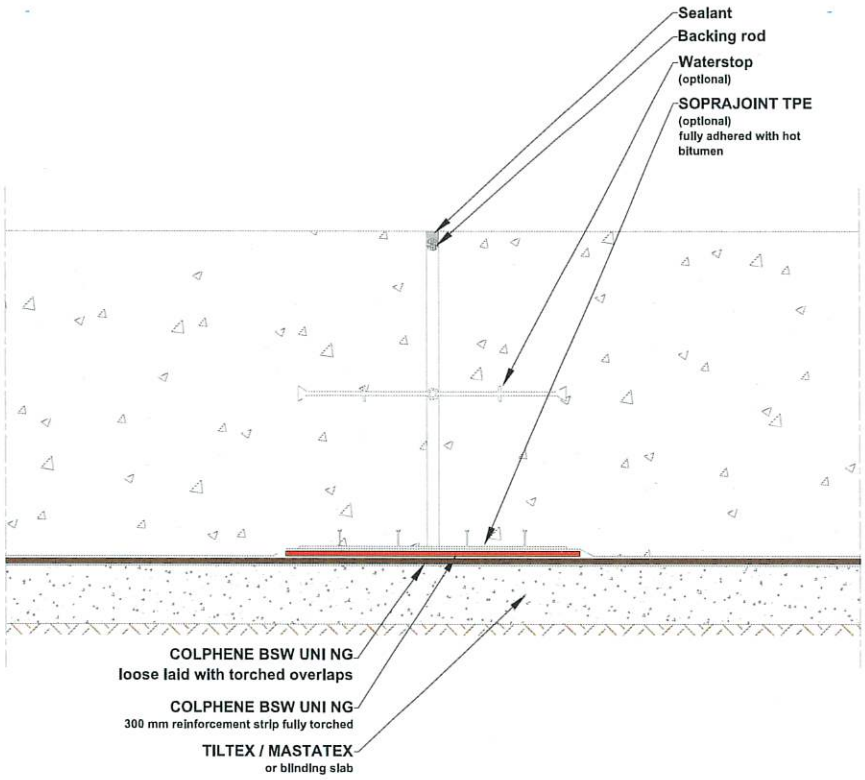
9.14. VERTICAL AND HORIZONTAL CONSTRUCTION JOINT DETAIL: SINGLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

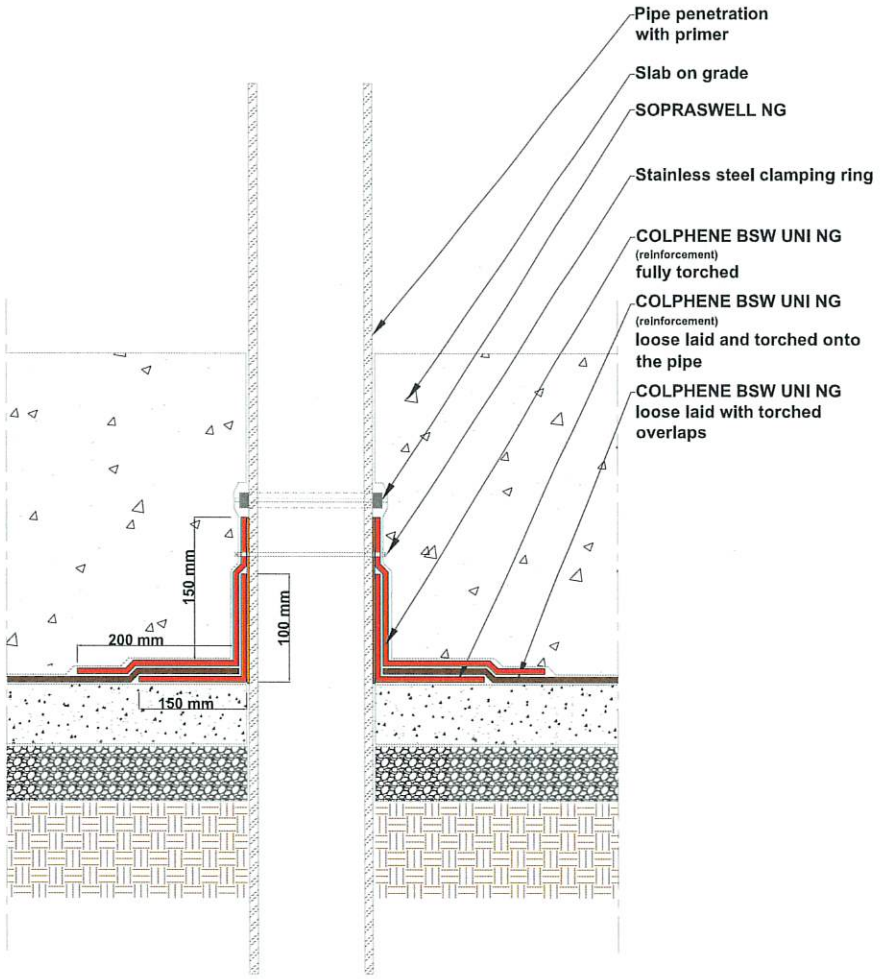
9.15. HORIZONTAL MOVEMENT JOINT DETAIL: SINGLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

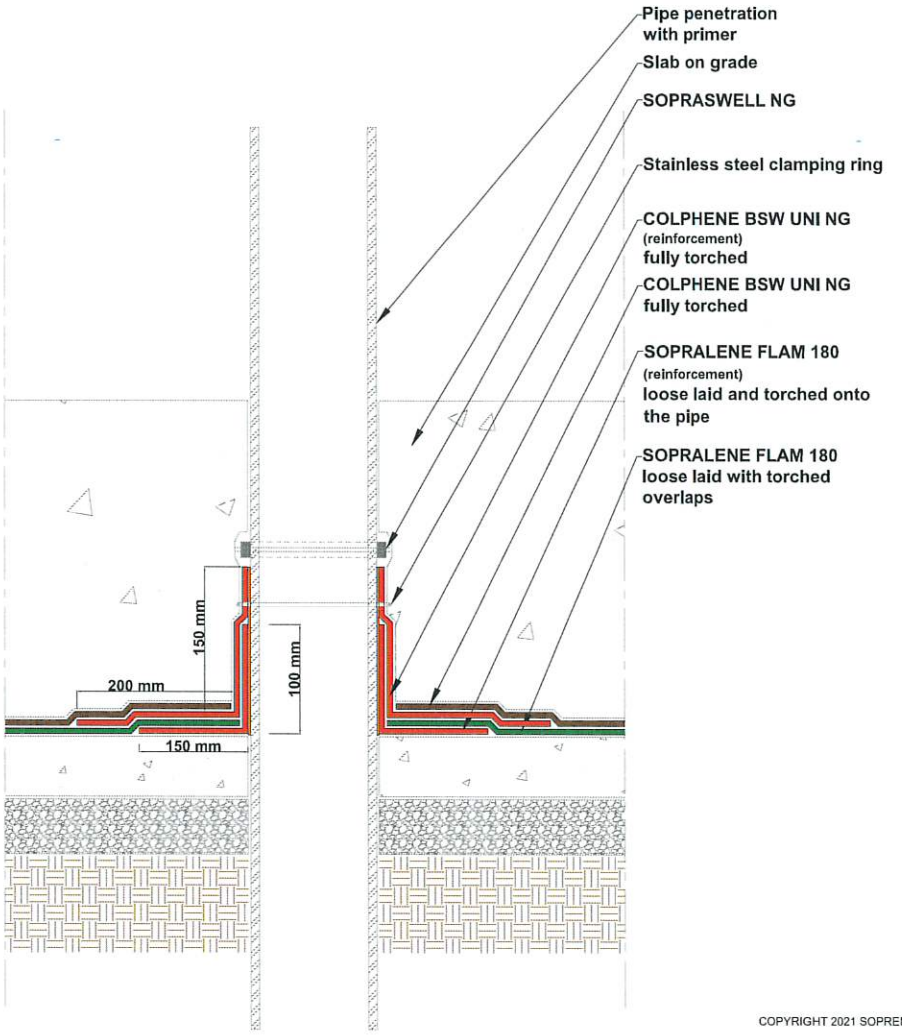
9.16. PIPE PENETRATION DETAIL: SINGLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

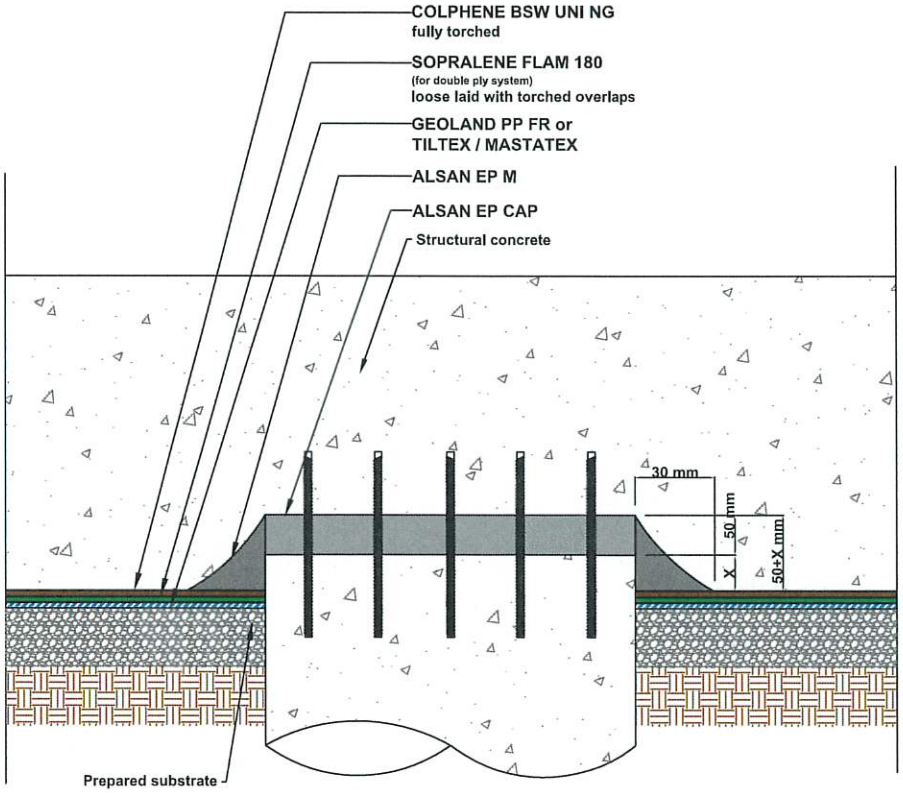
9.17. PIPE PENETRATION DETAIL: DOUBLE PLY



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

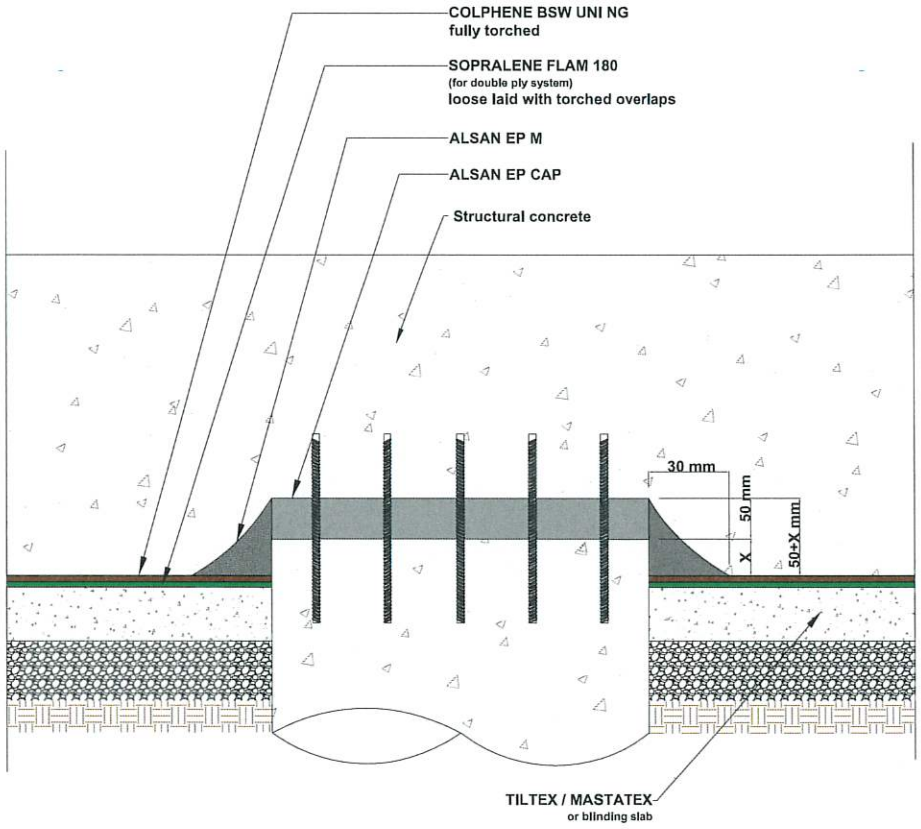
9.18. PILE CAP DETAIL



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

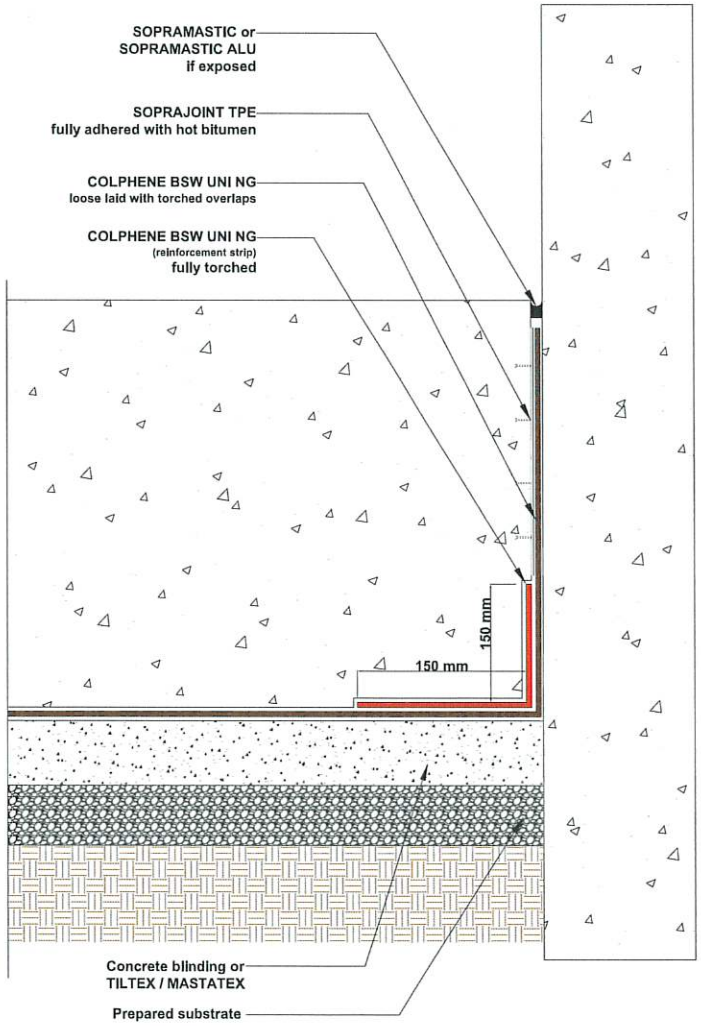
9.19. PILE CAP DETAIL WITH TILTEX OR MASTATEX



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

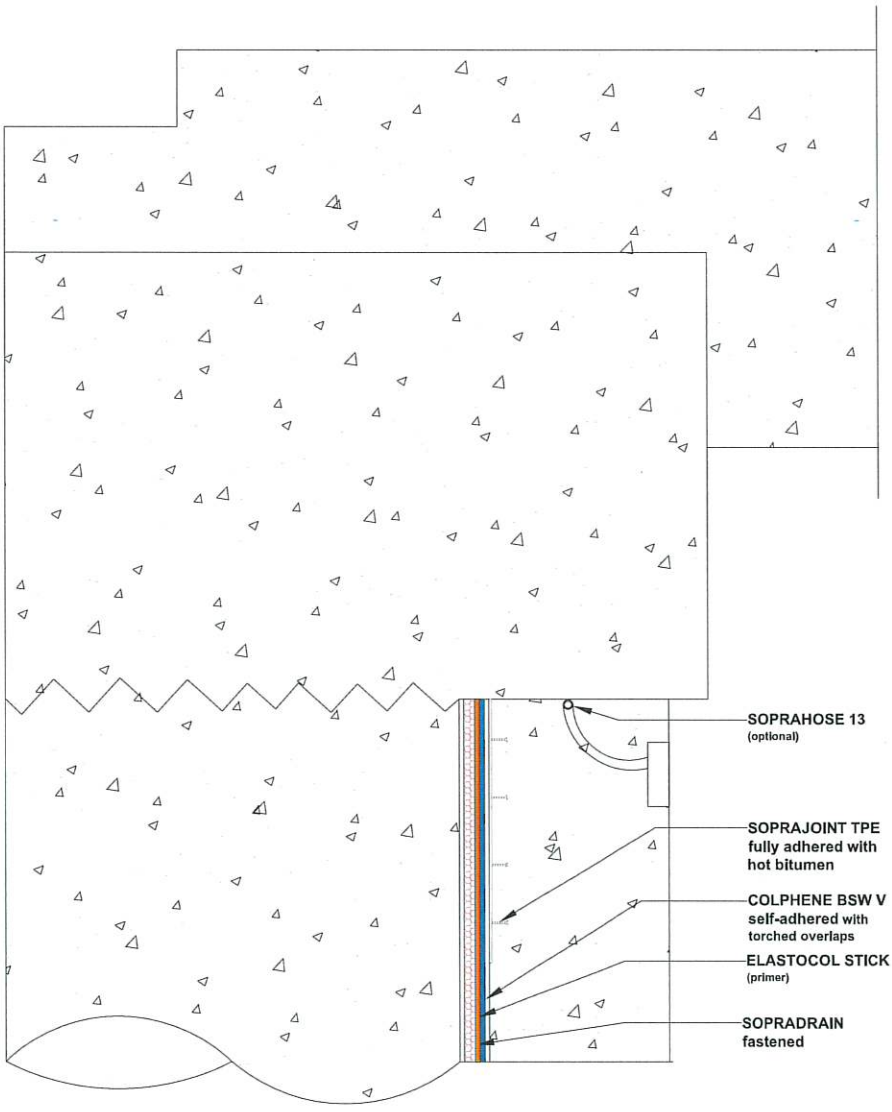
9.20. SLAB TERMINATION DETAIL WITH SOPRAJOINT TPE



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.21. TERMINATION DETAIL AT PILE HEAD WITH SOPRAJOINT TPE



NOTE:
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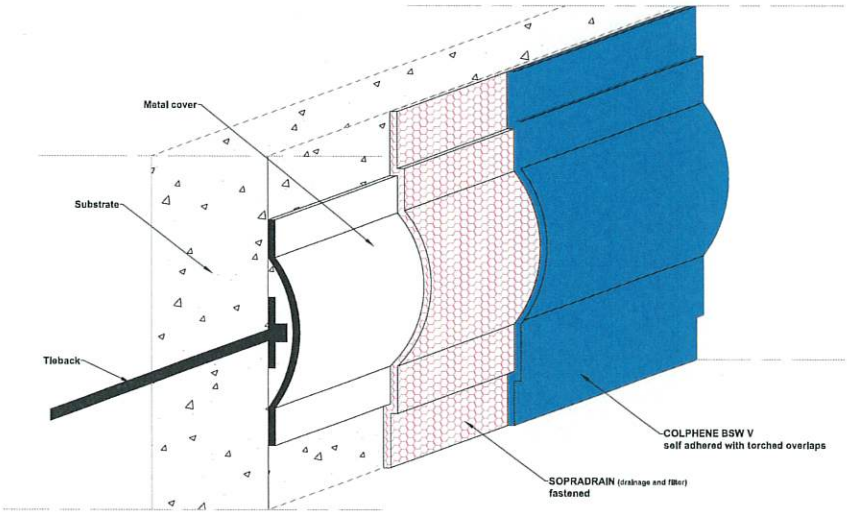
9.22. TIED BACK DETAIL



NOTE:
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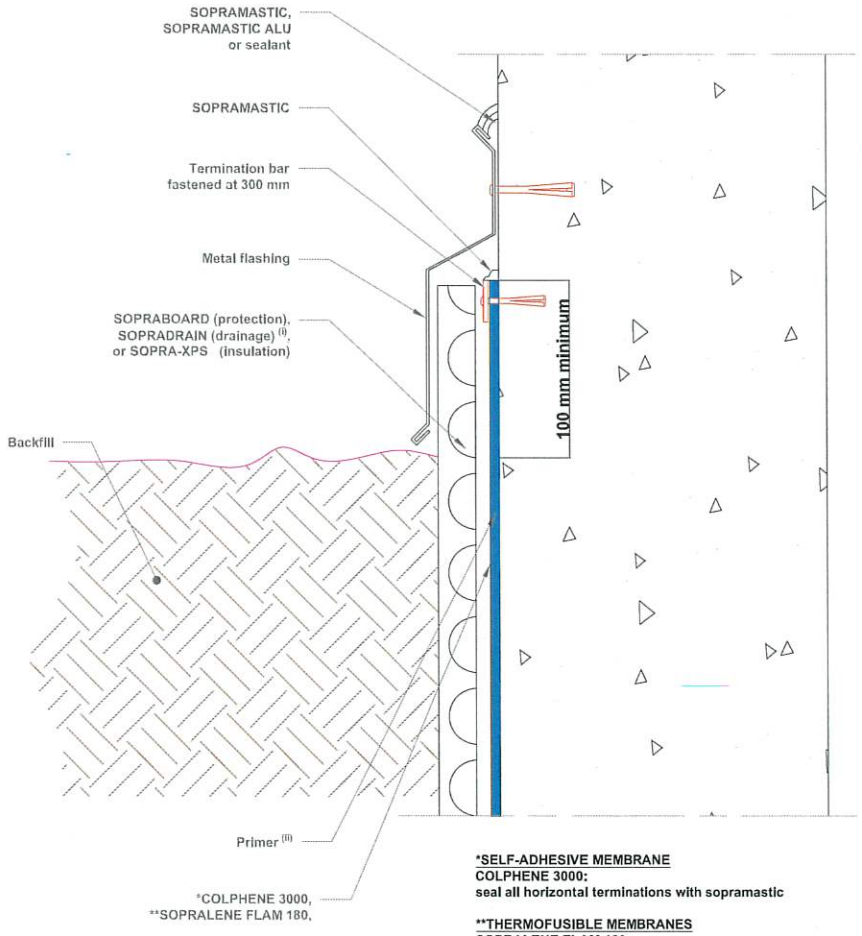
9.23. TERMINATION WITH METAL FLASHING



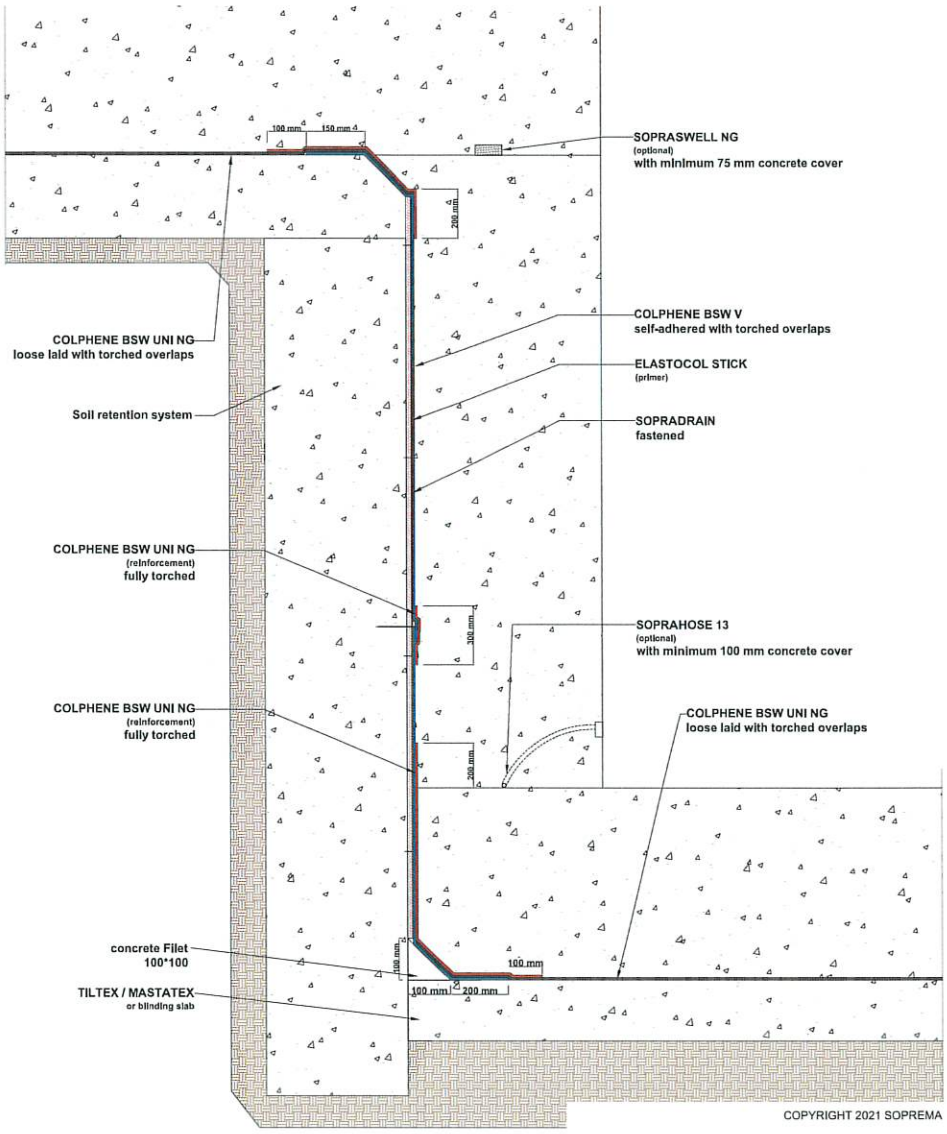
***SELF-ADHESIVE MEMBRANE**
COLPHENE 3000:
seal all horizontal terminations with sopramastic

****THERMOFUSIBLE MEMBRANES**
SOPRALENE FLAM 180:
seal all terminations (horizontal and vertical) with trowel with a round end.

(i): Always install Sopradrain filter fabric towards backfill.
(ii): Use ELASTOCOL STCK PRIMER with self-adhesive membrane and ANTIROCK PRIMER with thermofusible membrane.

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

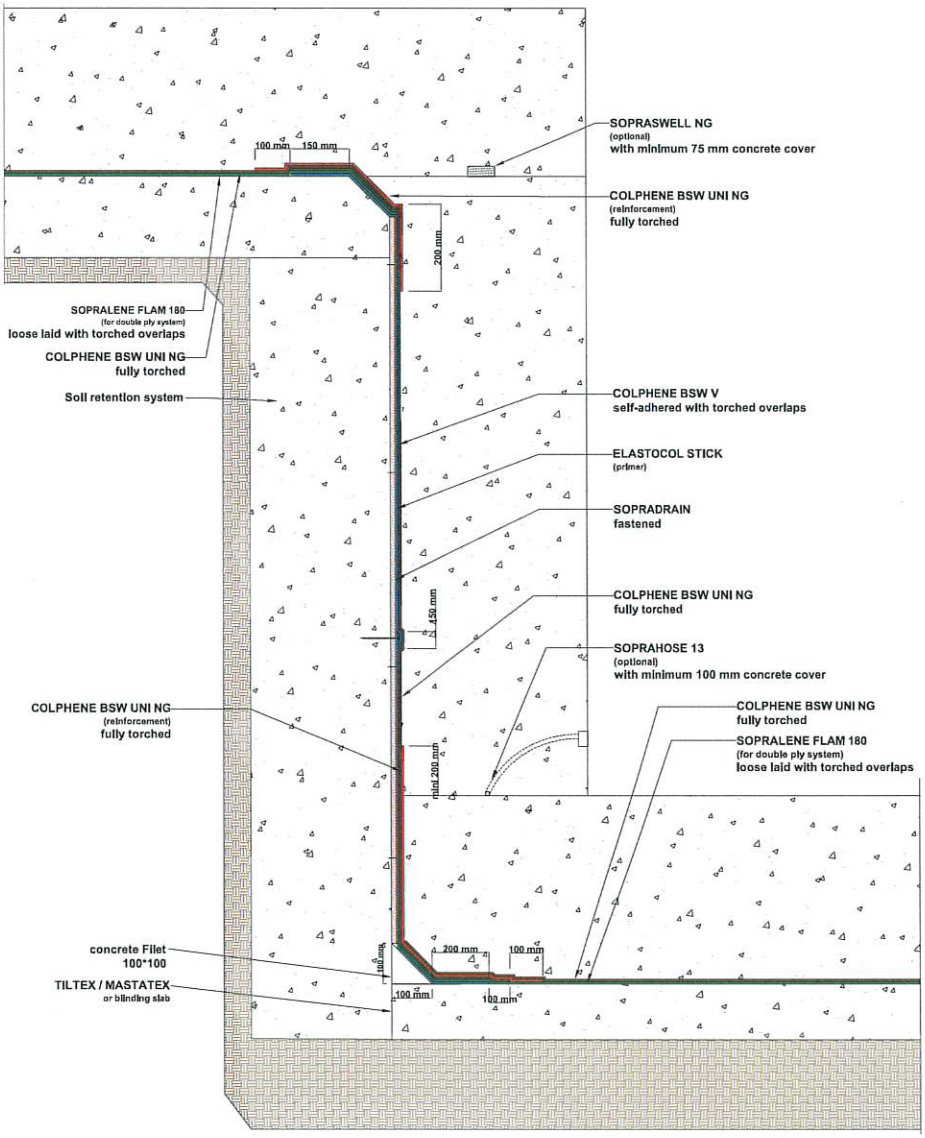
9.24. LIFT PIT DETAIL: SINGLE PLY SYSTEM



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
This detail is only indicative and should be verified by the designer and/or the applicator according to real job site conditions.

9.25. LIFT PIT DETAIL: DOUBLE PLY SYSTEM



* COLPHENE BSW UNI NG can be substituted for COLPHENE BSW H

NOTE:
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INNOVATION SINCE 1908

SOPREMA has developed around the idea that the quality, durability and reliability of materials must match builders' ambitions and expectations. For more than 100 years, SOPREMA has been using its expertise to develop a variety of high-end products that meet or exceed all the requirements of the construction field.

ROOFS WALLS FOUNDATIONS PARKING DECKS BRIDGES ADDITIONAL EXPERTISE


WATERPROOFING


INSULATION


VEGETATIVE SOLUTIONS


SOUNDPROOFING


ACCESSORY PRODUCTS

SOPREMA is an international manufacturer specialising in the production of waterproofing and insulation products, as well as vegetative and soundproofing solutions, for the building and civil engineering sectors.

INFO@SOPREMA.COM.AU SOPREMA.COM.AU

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