

AIR BARRIER SYSTEMS INSTALLATION GUIDE

2018 EDITION



SOPREMA

TABLE OF CONTENTS

TABLE OF CONTENTS

INTRODUCTION	5
Walls types	
1.1.1 Continuous exterior insulated wall assembly	7
1.1.2 Hybrid wall	7
STORAGE AND HANDLING	8
Basic rules	
2.1.1. Membranes	9
2.1.2. Liquids	9
2.1.3. Mastics	9
2.1.4. Torch and propane gas tank	9
SURFACE PREPARATION	10
Condition of surfaces	
3.1.1. Basic rules	11
3.1.2. Concrete surfaces	11
Primer coat application	12
PRIMERS	13
SOPRASEAL WATERPROOFING MEMBRANES	15
Sheet membranes	
4.1.1. Self-adhesive membranes	
4.1.1.1. SOPRASEAL STICK 1100 T	17
4.1.1.2. SOPRASEAL STICK 130 and 130 S	18
4.1.1.3. SOPRASEAL STICK VP	18
4.1.2. Heat-welded membranes	
4.1.2.1. SOPRASEAL 60 and 60 FF	19
4.1.2.2. SOPRASEAL 180 HD and 180 HD FF	20
Liquid applied membranes	
4.2.1. SOPRASEAL LM 200 S	20
4.2.2. SOPRASEAL LM 200 T	21
4.2.3. SOPRASEAL LM 202 VP	22
4.2.4. SOPRASEAL LM 203	23
4.2.5. SOPRASEAL LM BLOCK FILLER	23
Laminated board	
4.3.1. SOPRASEAL XPRESS G	24

SOPRASEAL MEMBRANES INSTALLATION METHODS

Installation of self-adhesive membranes

5.1.1. SOPRASEAL STICK 1100 T	26
5.1.2. SOPRASEAL STICK 130 and 130 S	32
5.1.3. SOPRASEAL STICK VP	34

Installation of heat-welded membranes

Torching technique	36
5.2.1. SOPRASEAL 60 and 60 FF, 180 HD and 180 HD FF	37

Application of liquid membranes

5.3.1. SOPRASEAL LM 200 S	39
5.3.2. SOPRASEAL LM 200 T	41
5.3.3. SOPRASEAL LM 202 VP and LM 203	43
5.3.3.1 SOPRASEAL LM BLOCK FILLER	44

Installation of laminated board

5.4.1. SOPRASEAL XPRESS G	49
---------------------------	----

Window sealing

5.5.1. Gusset	51
---------------	----

SAFETY MEASURES

Important preliminary instructions	55
------------------------------------	----

Torching special precautions	55
------------------------------	----

Special precautions for propane gas tank	56
--	----

Special precautions for primer application	57
--	----

Monitoring after the completion of welding work	57
---	----

Fires precautions	58
-------------------	----

Primer and liquid products	58
----------------------------	----

First aid measures	59
--------------------	----

INTRODUCTION

INTRODUCTION

It is important to fully understand why building enclosure must be completely air and vapour tight. The main function of envelopes is to separate the interior environment from the outside environment while keeping the transfer of air, moisture and heat to a minimum. To ensure the envelope works properly, good continuity between components is essential.

Air leakage is a common problem in building enclosures. Air leakage is essentially the result of uncontrolled air movement through the building enclosure. The results of air leakage include: condensation builds up inside walls, materials deteriorate over time, building occupants suffer discomfort, energy consumption increases (high heating and cooling costs), efflorescence occurs, bricks become damaged, pipes freeze, rain water leaks in, etc.

Air leakage through the building enclosure are caused by air pressure from one or more sources, such as wind pressure, the stack effect, or the pressure created by heating, cooling and ventilating mechanical units. This is why continuity is the most important element for air barriers. We must thus make sure that the building enclosure is as airtight as possible by installing a high performing air barrier system.

Air barrier systems should meet five criterias: be impermeable to air flow, be continuous over the entire building envelope, it must be able to withstand the forces that may act upon the building envelope, be durable over the expected lifetime of the building and finally, the air barrier membrane must have strength so that there is no deformation so its performance as expected through its service life.

Air barriers are generally divided into two categories: permeable and non-permeable.

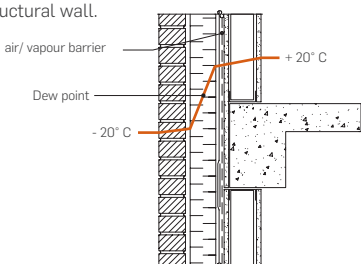
NON-PERMEABLE AIR BARRIERS	PERMEABLE AIR BARRIERS
Resists air leakage Resists water intrusion Resists vapour diffusion	Resists air leakage Resists water intrusion Allows vapour diffusion
Must always be set on the warm side of the insulation	Must always have insulation in wall cavities between studs Are installed onto exterior sheathing when cavities between studs are insulated
Are considered air/ vapour barriers	Are not considered vapour barriers, are only air barriers

1.1 WALL TYPES

Choosing the right type of wall is very important when designing a building. In order to make the most informed choice, it is important to understand what the walls will have to go through during the building's service life.

1.1.1 Continuous Exterior Insulated Wall Assembly

This type of wall assembly has the advantages that the insulation can easily be made continuous. The structure of building is kept warmer since it is on the warm side of the insulation. This type of assembly helps to reduce the effect of thermal bridging, since most of the structural components are kept behind the insulation. Exterior Insulated Wall Assembly also allows for the installation of an Air and Vapour Barrier Waterproofing membrane to the structural wall.

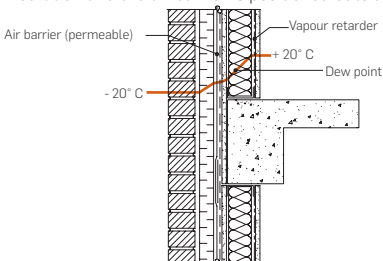


Soprema air barrier Solutions

The following Soprema products can be used for these types of walls: Sopraseal Stick 1100 T, Sopraseal 60 and 60 FF, Sopraseal 180 HD and 180 HD FF, Sopraseal Stick 130 and 130 S, Sopraseal Xpress G, Sopraseal LM 200 S, Sopraseal LM 200 T and Sopraseal LM 203.

1.1.2 Hybrid wall

The type of hybrid wall, are the walls where insulation is in wall cavities and continuous on the exterior side of the structure. In a hybrid wall, insulating materials are added in the cavities between studs, thus moving the dew point inwards. In this assembly, the vapour barrier and air barrier functions are separated. A vapour barrier is installed on the warm side of the insulation and the air barrier is positioned outside the structure.



Soprema air barrier Solutions

The following Soprema products can be used for these types of walls: Sopraseal Stick VP and Sopraseal LM 202 VP.

STORAGE AND HANDLING

STORAGE AND HANDLING

2.1 BASIC RULES

All **Soprema** products must be stored in a dry, well-ventilated area. Materials must be protected, safe from inclement weather and harmful substances. Materials must always be stored where they will not be exposed to flames or welding sparks. Only materials to be used that day should be removed from storage.

If the products are stored outside, cover them with an opaque protection cover once the packaging provided for delivery has been removed.

2.1.1 Membranes

After rolled materials are delivered, carefully store them in an upright position, with the selvedge side on top.

Rolls are delivered on pallets and covered with a plastic sheet.

Avoid stacking pallets for storage. However, if pallets must be stacked, insert a plywood sheet at least 12 mm (1/2 in) thick between pallets. 19 mm (3/4 in) is recommended.

Always store self-adhesive membranes away from the sun.

In cold weather, membranes can be stored outside. However, all membranes must be conditioned before installation if their installation or storage temperature is below 10°C (50°F).

2.1.2 Liquids

Store liquid product pails in a cool and dry area, away from any open flame.

Store in a well-ventilated area, away from heat or direct sunlight. Do not allow product to freeze.

All water based liquids must be stored at temperatures above 4 °C (40°F).

2.1.3 Mastics

In cold weather, store solvent-based mastics at a temperature that is sufficiently warm to ensure the flexibility required for application (> 10°C [>50°F]). Take products out of storage at the same rate as they are applied on site.

2.1.4 Torch and propane gas tank

Inspection of torching equipment

Always use appropriate, CSA-certified torching equipment that is in perfect working order. Never modify torching equipment. Use appropriate propane gas hoses that are less than 15 m (50 ft.) long.

Before using torching equipment, check and securely fasten all fittings.

Do not light the torch if you smell any propane odour whatsoever. Never look for leaks with an open flame. Use soapy water.

Use a torch with an adjustable pilot light and a shut-off valve.

SURFACE PREPARATION

SURFACE PREPARATION

3.1 CONDITION OF SURFACES

3.1.1 Basic rules

No work should be started until all surfaces are smooth, dry, and free of ice and any other substance that may prevent the membrane from adhering properly, according to the Soprema instructions and recommendations. For the substrate, see the manufacturer's instructions and recommendations.

No products should be installed when it is raining or snowing unless protected.

All cracks need solid support. Any seams and cracks measuring less than 6 mm (1/4 in) in width should be filled with **Sopramastic** or **Sopraseal LM 200 T**. For cracks exceeding 6 mm (1/4 in) in width, apply a primer and install a 150 mm (6 in) strip membrane.

3.1.2 Concrete surfaces

For applications on poured/reinforced concrete or concrete blocks, make sure that the concrete has cured completely or that the mortar on the concrete blocks is dry before installing membranes. The mortar joints should be struck flat and no mortar joints should protrude past the face of the substrate. Damaged blocks need to be replaced. When the CMU is not installed in a flush manner, the blocks need to be removed and re-installed.

For the installation of sheet membranes, a minimum curing time of 10 to 14 days is generally required in the summer. More time may be required in other seasons. For the installation of liquid membranes, a minimum curing time of 3 days is required. Curing time also depends on the thickness and density of the concrete.

Note: If required, consult the contractor who poured the concrete for more details about concrete curing on a specific project.

Surfaces must be dry, clean, free of loose particles and oil formwork, curing products, irregularities, slurry, etc.

Any curing agents must be compatible with the sealing/waterproofing products or removed from surface.

Raised areas along concrete formwork and pouring joints must not exceed 5 mm (3/16 in).

Any holes over 5 mm (3/16 in) must be filled with bitumen or fast-setting concrete, depending on the condition of the surface.

For irregular surfaces such as masonry blocks **Sopraseal LM Block Filler** can be used to smooth out the surface for easier use of **Sopraseal LM 202 VP** and **Sopraseal LM 203**.

An adhesion test is recommended before installing the membrane.

3.2 PRIMER COAT APPLICATION

Apply a primer coat over the entire surface to be covered, as per the recommended coverage rate.

Allow primer to dry completely. Drying time will vary depending on the product, weather conditions and temperature of the substrate.

Self-adhesive membranes must be installed as soon as possible after the primer has dried, within 2 hours following application of the primer.

Primed surfaces not covered immediately once the primer is dry may become contaminated (such as dust, loose particles) in a very short time. When this happens, the surfaces must be re-primed before installing membranes.

The following membranes require primer before installation: **Sopraseal Stick 1100 T, Sopraseal Stick 130 and 130 S, Sopraseal 60 and 60 FF, Sopraseal 180 HD and 180 HD FF, Sopraseal WFM, Soprasolin HD.**

Primers can be applied using the following tools:

- rollers;
- paint brushes (for small surfaces);
- sprayed (Sopraseal Stick Primer only).

Note: Never dilute the primer.

Never use a torch to check if the primer is dry. Use a bare hand to check that there is no trace of humidity or a sticky film that adheres to skin.

Drying time varies depending on the humidity and temperature of the substrate.

PRIMERS

PRIMERS

PRODUCTS	DESCRIPTION	DRYING TIME	COVERAGE	TEMPERATURE RANGE
Sopraseal Stick Primer	Solvent-based primer to prepare surfaces before the installation of self-adhesive membranes.	15 to 60 minutes	Porous substrates: 0.3 - 0.5 L/m ² (0.3 - 0.5 US gal/100 sq.ft) Non-porous substrates: 0.1 - 0.25 L/m ² (0.25 - 0.625 US gal/100 sq.ft)	Application with a brush or a roll: - 30°C (-22 °F) Application with a spray equipment: - 10°C (14 °F)
Elastocol Stick H ₂ O	Water-based primer to prepare surfaces before the installation of self-adhesive membranes. Never used below 0°C (32°F)	30 minutes to 3 hours	0.1 - 0.3 L/m ² (0.25 - 0.75 US gal/100 sq.ft)	- 4°C (25 °F)
Elastocol Stick Zero	Solvent-based primer to prepare the surfaces before installation of self-adhesive membranes, LEED® compliant (IEQ credit 4.1)	30 to 90 minutes	Porous substrates: 0.2 - 0.4 L/m ² (0.50 - 1.00 US gal/100 sq.ft) Non-porous substrates: 0.1 - 0.25 L/m ² (0.25 - 0.625 US gal/100 sq.ft)	- 10°C (14 °F)
Elastocol 500	Solvent-based primer to prepare surfaces before the installation of heat-welded membranes.	1 to 12 hours	0.15 - 0.25 L/m ² (0.375 - 0.625 US gal/100 sq.ft.)	-

*Note: Coverage varies with the porosity of the substrate and the type of surface. Essential that the pails are thoroughly mixed and immediately prior to installation.

The drying time can vary depending on the temperature and the relative humidity.

SOPRASEAL WATERPROOFING MEMBRANES

SOPRASEAL WATERPROOFING MEMBRANES

	PERMEABLE	NON-PERMEABLE	THICKNESS	DIMENSIONS	REINFORCEMENT	NET AREA*
SELF-ADHESIVE MEMBRANES						
Sopraseal Stick 1100 T		X	1.0 mm (40 mil)	22.9 x 0.91 m (75 x 3 ft)	T	19.7 m ² (212 ft ²)
Sopraseal Stick 130 and 130 S		X	2.5 mm (98 mil)	10 x 1 m (33 x 3.3 ft)	GM	9 m ² (97 ft ²)
Sopraseal Stick VP	X		0.6 mm (24 mil)	30 x 0.95 m (98 pi x 37 in)	T	26.2 m ² (281 ft ²)
HEAT-WELDED MEMBRANES						
Sopraseal 60 and 60 FF		X	2.7 mm (106 mil)	10 x 1 m (33 x 3.3 ft)	GM	8.6 m ² (92 ft ²)
Sopraseal 180 HD and 180 HD FF		X	3 mm (118 mil)	10 x 1 m (33 x 3.3 ft)	P	9.5 m ² (102 ft ²)
LAMINATED BOARD						
Sopraseal Xpress G		X	Panel: 12.7 mm (1/2 po) Membrane: 0.15 mm (6 mil)	1.2 x 2.44 m (4 x 8 ft)	T	2.93 m ² (32 ft ²)
	PERMEABLE	NON-PERMEABLE	THICKNESS	COVERAGE PER PAIR**		
LIQUIDS MEMBRANES						
Sopraseal LM 200 S		X	Wet film: 2.0 mm (80 mil) Dry film: 1.0 mm (40 mil)	10 m ² (100 ft ²)		
Sopraseal LM 200 T		X	Wet film: 2.3 mm (90 mil) Dry film: 1.15 mm (45 mil)	10 m ² (100 ft ²)		
Sopraseal LM 202 VP	X		Wet film: 0.5 mm (20 mil)***	33 to 46 m ² (350 to 500 ft ²)		
Sopraseal LM 203		X	Wet film: 0.6 mm (26 mil)***	21 to 33 m ² (230 to 350 ft ²)		

*Net area, 1 roll (field surface) **Coverage per 19L ***Variate according to the substrate (see p.55)
Legend: GM = Glass mat P = Non-woven polyester T = Tri-laminated woven polyethylene HPDE

SOPRASEAL WATERPROOFING MEMBRANES

4.1 SHEET MEMBRANES

4.1.1 Self-adhesive membranes

4.1.1.1 Sopraseal Stick 1100 T

Description

Sopraseal Stick 1100 T is a self-adhesive membrane composed of SBS modified bitumen and a tri-laminated woven polyethylene facer. The woven polyethylene is compatible with the use of sprayed polyurethane foam insulation. The self-adhesive underface is covered with a silicone release paper or film.

Sopraseal Stick 1100 T is designed for air/vapour barrier waterproofing applications. It is also used as a through-wall flashing membrane, a masonry flashing, and a transition membrane, as well as a waterproofing membrane at openings.

It is available in summer and winter grades.

Recommended substrates

This product can be used on most substrates, such as masonry, concrete, wood and exterior gypsum board.

Restrictions

Winter grade **Sopraseal Stick 1100 T** should not be installed at temperatures below -10°C (14°F); the summer grade product should not be installed at temperatures below 10°C (50°F).

Accessories products

Sopraseal Stick Primer, **Elastocol Stick H₂O** and **Elastocol Stick Zero** are used to prepare surfaces before the installation of self-adhesive membranes.

Sopraseal Stick 1100 T cut roll membrane, **Sopraseal Stick Flashpro** or **Soprasolin HD** are used to form a tight perimeter seal around various openings.

The **Sopraseal Stick 1100 T** membrane can also be used in conjunction with **Sopraseal WFM** as a flashing membrane.

Use **Sopraseal Sealant** with the membrane to seal around details, reverse laps and critical areas.

Sopramastic can also be used to seal reverse laps, masonry anchors and seal the top edge of the membrane where it meets the substrate.

Can use **Alsan flashing** with the membrane for the waterproofing around details and critical areas.

4.1.1.2 Sopraseal Stick 130 and 130 S

Description

Sopraseal Stick 130 and **Sopraseal Stick 130 S** membranes are used as air/vapour barriers on walls as well as through-wall flashing and transition membrane.

Sopraseal Stick 130 and **Sopraseal Stick 130 S** are self-adhesive air/vapour barrier membranes composed of SBS modified bitumen and a high strength glass mat reinforcement. The top surface is either sanded or covered with a thermofusible plastic film. A silicone release film covers the self-adhesive underface.

Restrictions

Sopraseal Stick 130 and **Sopraseal Stick 130 S** should not be installed at temperatures below -10°C (14°F). For an application below -10°C (14°F), please consult your Soprema representative.

Accessories products

Sopraseal Stick Primer, **Elastocol Stick H₂O** and **Elastocol Stick Zero** are used to prepare surfaces before the installation of self-adhesive membranes.

Sopraseal Stick 1100 T cut roll membrane or **Soprasolin HD** is used to form a tight perimeter seal around various openings.

Sopramastic is the ideal complement to bituminous waterproofing membranes as joint filler and caulking material. Use **Sopramastic** with the membrane to seal around details, reverse laps and critical areas.

Can use **Alsan flashing** with the membrane for the waterproofing around details and critical areas.

4.1.1.3 Sopraseal Stick VP

Description

Sopraseal Stick VP is a self-adhesive membrane composed of a tri-layer laminated polypropylene facer. The self-adhesive underface is covered with a silicone release film.

Sopraseal Stick VP is a vapour permeable air barrier used in wall construction. It can also be used as a transition membrane.

Recommended substrates

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

Restrictions

Sopraseal Stick VP should not be installed at temperatures below -7°C (19°F).

Accessories products

Soprasedal Stick 1100 T cut roll membrane, **Soprasedal Stick Flashpro** or **Soprasolin HD** are used to form a tight perimeter seal around various openings.

The **Soprasedal Stick VP** membrane can also be used in conjunction with **Soprasedal Stick 1100 T** or **Soprasedal WFM** as a flashing membrane.

Use **Soprasedal Sealant** with the membrane to seal around details, reverse laps and critical areas.

4.1.2 Heat-welded membranes

No heat-welding operation is to be done directly on a combustible substrate or by uncertified torch applicator.

4.1.2.1 Soprasedal 60 and 60 FF

Description

Soprasedal 60 and **60 FF** membranes are used as air/vapour barriers on wall. These membranes are composed of SBS modified bitumen and a glass mat reinforcement. The membranes are applied using a torch and should never be bonded using hot asphalt. The top surface of the membrane is either sanded or covered with a thermofusible plastic film.

Soprasedal 60 and **60 FF** membranes are self-sealing when penetrated with wall insulation screws.

Restrictions

Soprasedal 60 and **60 FF** should not be installed at temperatures below -35°C (-31°F).

Accessories products

Elastocol 500 primer is used to prepare surfaces before the installation of heat-weldable membranes.

Soprasedal Stick 1100 T cut roll membrane or **Soprasolin HD** is used to form a tight perimeter seal around various openings.

Sopramastic is the ideal complement to bituminous waterproofing membranes as joint filler and caulking material. Use **Sopramastic** with the membrane to seal around details, reverse laps and critical areas.

Can use **Alsan flashing** with the membrane for the waterproofing around details and critical areas.

4.1.2.2 Sopraseal 180 HD and 180 HD FF

Description

Sopraseal 180 HD and **180 HD FF** membranes are used as air/ vapour barriers on wall. These membranes are composed of SBS modified bitumen and a non-woven polyester reinforcement. The membranes are applied using a torch and should never be bonded using hot asphalt. The top surface of the membrane is either sanded or covered with a thermofusible plastic film.

Sopraseal 180 HD and **180 HD FF** membranes are self-sealing when penetrated with wall insulation screws.

Restrictions

Sopraseal 180 HD and **180 HD FF** must not be installed in temperatures below -35°C (-31°F).

Accessories products

Elastocol 500 primer is used to prepare surfaces before the installation of heat-weldable membranes.

Sopraseal Stick 1100 T cut roll membrane or **Soprasolin HD** is used to form a tight perimeter seal around various openings.

Sopramastic is the ideal complement to bituminous waterproofing membranes as joint filler and caulking material.

Can use **Alsan flashing** with the membrane for the waterproofing around details and critical areas.

4.2 LIQUID APPLIED MEMBRANES

4.2.1 Sopraseal LM 200 S

Description

Sopraseal LM 200 S is a single component liquid product made from water and synthetic rubbers. **Sopraseal LM 200 S** is spray-applied and is used as an air/vapour barrier.

Recommended substrates

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

Restrictions

Sopraseal LM 200 S should not be installed at temperatures below 2°C (35°F).

Do not use this product if there is a risk of rain or freezing temperatures in the 24 hours after application.

Accessories products

Soprasedal Stick 1100 T cut roll membrane, **Soprasedal Stick Flashpro** or **Soprasolin HD** are used to form a tight perimeter seal around various openings.

The **Soprasedal LM 200 S** membrane can also be used in conjunction with **Soprasedal Stick 1100 T** or **Soprasedal WFM** as a flashing membrane.

Use **Soprasedal Sealant** with the membrane to seal around details and critical areas.

4.2.2 Soprasedal LM 200 T

Description

Soprasedal LM 200 T is a water-based single component, rubberised liquid product. Apply **Soprasedal LM 200 T** with trowel or a brush and used as insulation adhesive or as an air/vapour barrier membrane.

Soprasedal LM 200 T resists moisture and inhibits air leakage and moisture vapour transmission. It provides a highly flexible film bridging cracks, which may form in the substrate. It remains firmly bonded to the substrate even when applied over damp surfaces. It is not designed to be permanently exposed.

Recommended substrates

They are designed for use on most building materials, including masonry, concrete, wood and gypsum board in conjunction with rigid or semi-rigid thermal insulation boards including polystyrene.

Restrictions

Soprasedal LM 200 T should not be installed at temperatures below 2°C (35°F).

Leave to dry at a temperature of 5°C or more. Curing time depends on the relative humidity, temperature and air movement.

Do not use if there is a risk of rain or frost 24 hours after the application.

Soprasedal LM 200 T is not designed to be continuously exposed to moisture.

Accessories products

Soprasedal Stick 1100 T cut roll membrane, **Soprasedal Stick Flashpro** or **Soprasolin HD** are used to form a tight perimeter seal around various openings.

Sopragrip F improves the adhesion of liquid air and vapour barrier membranes.

Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.

4.2.3 Sopraseal LM 202 VP

Description

SOPRASEAL LM 202 VP is a liquid, single-component product made of synthetic rubber. It can be apply using spray equipment, paint brushes or nap rollers.

SOPRASEAL LM 202 VP is used as a vapour permeable air barrier and provides moisture protection behind wall claddings including brick, siding, metal panels, EIFS and stucco. Utilization of a slip sheet is required for stucco cladding.

Recommended substrates

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

Restrictions

Do not use **Sopraseal LM 202 VP** for below grade applications or on surfaces subject to water immersion.

Minimum application temperature: 4°C (40°F). To apply **Sopraseal LM 202 VP** at temperatures below 4°C (40°F), but above -4°C (25°F), blend in 1 entire container of **Sopraseal LT Additive**.

Accessories products

Sopraseal LT Additive is a liquid additive designed to be mixed with **Sopraseal LM 202 VP** to enable application at temperatures as low as -4°C (25°F).

Sopraseal Mesh is a reinforced non-woven polyester fabric designed to reinforce **Sopraseal LM 202 VP** over openings, sheathing joints and transitions.

Sopraseal Quick Corners is a premanufactured reinforced non-woven polyester fabric, designed to be used with **Sopraseal LM 202 VP** to reinforce opening corners.

Sopraseal LM 202 VP liquid membrane can also be used in conjunction with **Sopragrip F** self-adhesive membrane to create a transition membrane.

Sopraseal Stick 1100 T cut roll membrane is used to form a tight seal where the wall and footing meet. **Sopraseal Stick Primer** is to be used before the application of the **Sopraseal Stick 1100 T** membrane.

Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.

4.2.4 Sopraseal LM 203

Description

Sopraseal LM 203 is a single component, liquid product made from modified rubber. It can be apply using spray equipment, paint brushes or nap rollers.

Sopraseal LM 203 is used as an air/vapour barrier and provides moisture protection behind wall claddings including brick, siding, metal panels, EIFS and stucco. Utilization of a slip sheet is required for stucco cladding.

Recommended substrates

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

Restrictions

Do not use **Sopraseal LM 203** for below grade applications or on surfaces subject to water immersion.

Minimum application temperature: 4°C (40°F). To apply **Sopraseal LM 203** at temperatures below 4°C (40°F), but above -4°C (25°F), blend in 1 entire container of **Sopraseal LT Additive**.

Accessories products

Sopraseal LT Additive is a liquid additive designed to be mixed with **Sopraseal LM 203** to enable application at temperatures as low as -4°C (25°F).

Sopraseal Mesh is a reinforced non-woven polyester fabric designed to reinforce **Sopraseal LM 203** over openings, sheathing joints and transitions.

Sopraseal Quick Corners is a premanufactured reinforced non-woven polyester fabric, designed to be used with **Sopraseal LM 203** to reinforce opening corners.

Sopraseal LM 203 liquid membrane can also be used concurrently with **Sopragrip F** self-adhesive membrane to create a transition membrane at the bottom of walls.

Sopraseal Stick 1100 T cut roll membrane is used to form a tight seal where the wall and footing meet. **Sopraseal Stick Primer** is to be used before the application of the **Sopraseal Stick 1100 T** membrane.

Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.

4.2.5 Sopraseal LM Block Filler

Description

Sopraseal LM Block Filler is a single-component, water-based block filler product made from silica fortified rubber. It has been specifically designed for use with **Sopraseal LM 202 VP** and **Sopraseal LM 203**.

Recommended substrates

This product can be used on porous concrete or masonry substrates for subsequent application of **Sopraseal LM 202 VP** or **Sopraseal LM 203**.

Restrictions

Do not apply **Sopraseal LM Block Filler** to frozen surfaces.

Do not apply **Sopraseal LM Block Filler** to substrates that are below 4°C (40°F), or if ambient air temperature is expected to drop below 4°C (40°F) within 12 hours of the curing of **Sopraseal LM Block Filler**, unless **Sopraseal LT Additive** is used.

Ensure that walls are capped to protect from moisture intrusion due to precipitation.

4.3 LAMINATED BOARD

4.3.1 Sopraseal Xpress G

Description

Sopraseal Xpress G consists of an air/vapour barrier which is factory laminated to a non-organic faced (paper free) exterior grade gypsum board with a modified bitumen adhesive. It is used as an air/vapour barrier on walls.

Restrictions

Sopraseal Xpress G must not be installed in temperatures below -35°C (-31°F).

Accessories products

Sopraseal Stick Primer and **Elastocol Stick Zero** are used to prepare surfaces before the installation of strip membranes of **Sopraseal Stick 1100 T** cut roll membrane, to seal joints between panels.

Sopraseal Stick 1100 T cut roll membrane, **Sopraseal Stick Flashpro** or **Soprasolin HD** are used to form a tight perimeter seal around various openings.

The **Sopraseal Stick 1100 T** membrane can also be used in conjunction with **Sopraseal WFM** as a flashing membrane.

Sopraseal Xpress Screws are especially designed for the installation of **Sopraseal Xpress G** panels.

Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.

Can use **Alsan flashing** with the membrane for the waterproofing around details and critical areas.

SOPRASEAL MEMBRANES INSTALLATION METHODS

SOPRASEAL MEMBRANES INSTALLATION METHODS

5.1 INSTALLATION OF SELF-ADHESIVE MEMBRANES

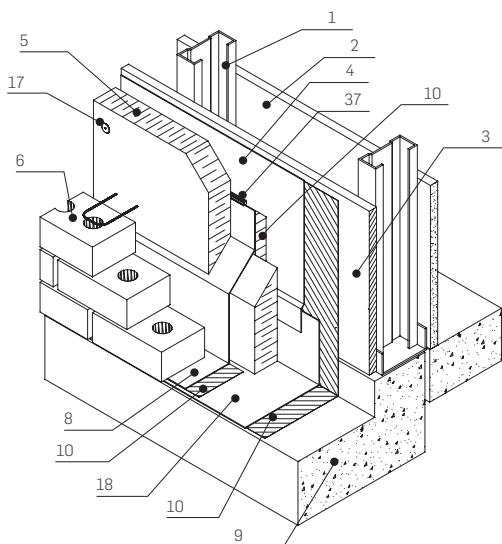
5.1.1 Sopraseal Stick 1100 T

1. Prime the substrate with **Sopraseal Stick Primer**, **Elastocol Stick Zero** or **Elastocol Stick H₂O**. The substrate should be clean and sound. Follow mixing procedure.
2. For inside or outside corners, install a 305 mm (12 in) wide strip of pre-cut **Sopraseal Stick 1100 T** membrane. Peel the release paper and position the strip into place with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom. Press the material in place so that it adheres to the substrate.
3. Install membrane around penetrations and details. Prime surfaces and provide minimum 100 mm (4 in) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
4. On walls, peel off the top portion of the silicone release paper and adhere the membrane to the substrate, making sure that the membrane is well aligned.
5. Gradually peel off the remaining silicone release paper, making sure the membrane is kept tight and adheres completely to avoid air pockets and wrinkles. All membrane overlaps must be a minimum of 50 mm (2 in).
6. Once the membrane is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
7. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
8. Use **Sopraseal Sealant** with the membrane to seal around details, reverse laps and critical areas. At the end of each day work seal the top edge of the membrane where it meets the substrate with **Sopraseal Sealant** or **Sopramastic**. Trowel apply a feathered edge to seal termination and shed water.
9. Treat membrane deficiencies and/or damaged areas to membrane with **Sopraseal Stick 1100 T** membrane. Prime surfaces with **Sopraseal Stick Primer** and install a membrane patch extending minimum 100 mm (4 in) beyond limits of repair area, treat terminations with specified termination sealant. Trowel sealant to shed water.

DETAILS

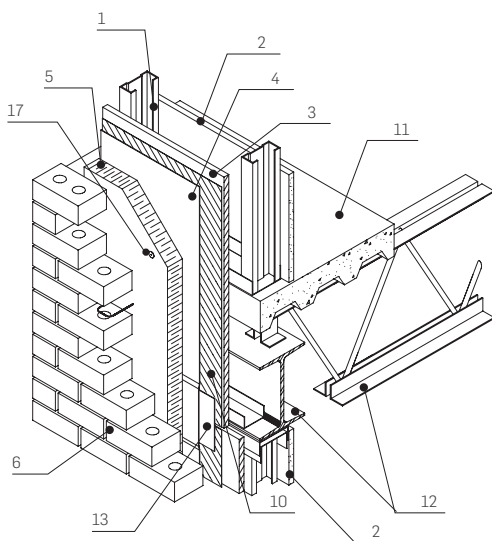
SOPRASEAL STICK 1100 T

STEEL STUD WALL FOUNDATION JUNCTION



SOPRASEAL STICK 1100 T

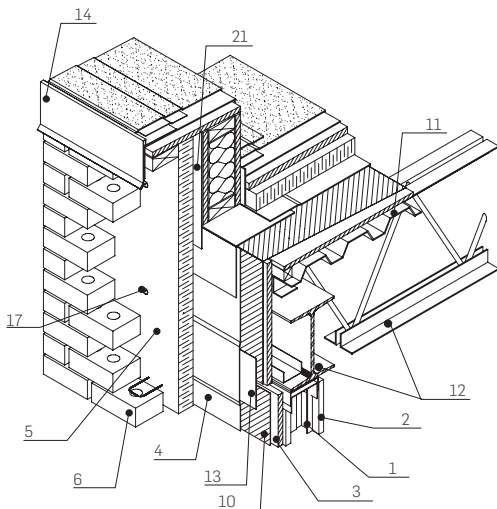
STEEL STUD WALL FLOOR JUNCTION



DETAILS

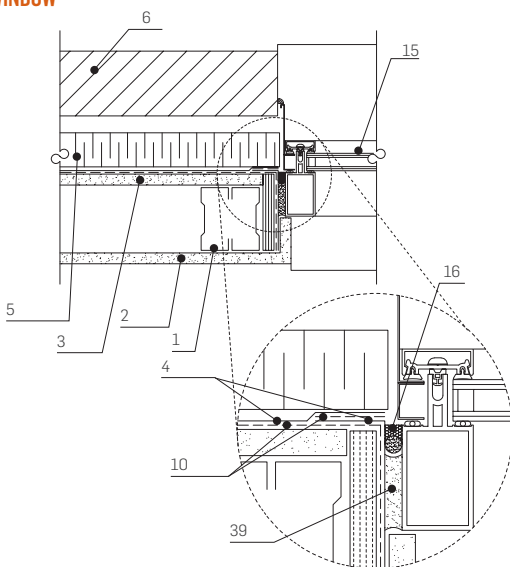
SOPRASEAL STICK 1100 T

STEEL STUD WALL ROOF JUNCTION



SOPRASEAL STICK 1100 T

WINDOW

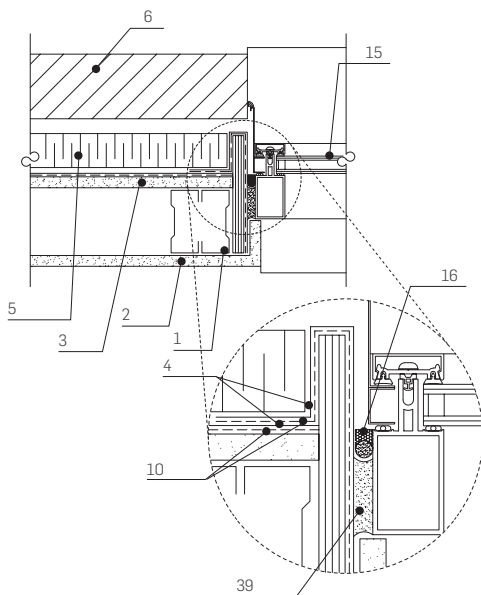


*See the legend of details at the end of the section 5 page 64

DETAILS

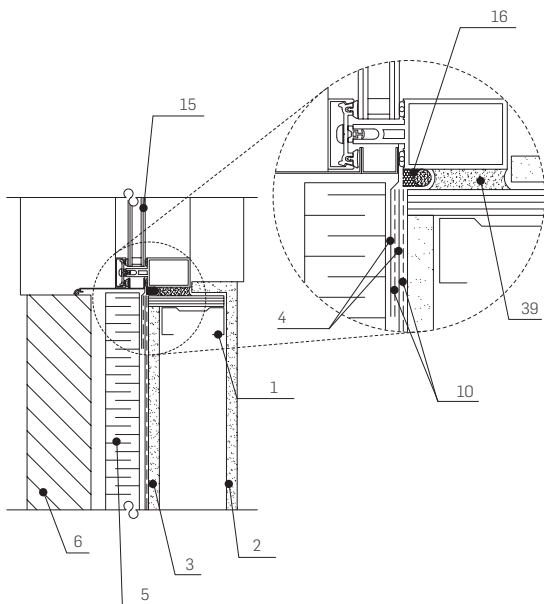
SOPRASEAL STICK 1100 T

WINDOW WITH SHELF



DETAILS

**SOPRASEAL STICK 1100 T
CUNTAIN WALL - SILL DETAIL**

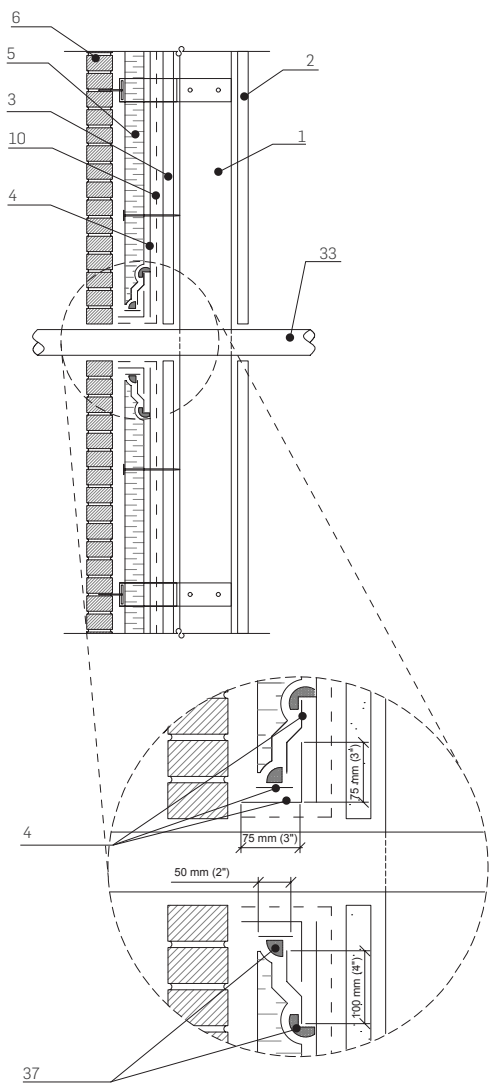


*See the legend of details at the end of the section 5 page 64

DETAILS

SOPRASEAL STICK 1100 T

PIPE PENETRATION



5.1.2 Sopraseal Stick 130 and 130 S

1. Prime the substrate with **Sopraseal Stick Primer**, **Elastocol Stick Zero** or **Elastocol Stick H₂O**. The substrate should be clean and sound. Follow mixing procedure.
2. For inside or outside corners, cut a strip of membrane that is 305 mm (12 in) in a length. Peel the release film and position the strip into place with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom. Press the material in place so that it adheres to the substrate.
3. Install membrane around penetrations and details. Prime surfaces and provide minimum 100 mm (4 in) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
4. On walls, peel off the top portion of the silicone release film and adhere the membrane to the substrate, making sure the membrane is well aligned. Gradually peel off the remaining silicone release film, ensuring the membrane is kept tight and adheres completely.
5. All membrane overlaps must be at least 50 mm (2 in) side and end lap joints.
6. Once the membrane is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
7. Burn off the surface plastic film to expose bitumen for end lap termination. Seal termination of the membrane with heat and using a round-nosed trowel. *During cold weather, heat from the torch can be applied to the installed membrane's surface to improve adhesion to substrates and overlaps.
8. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
9. At the end of each day work seal the top edge of the membrane where it meets the substrate with **Sopramastic**. Trowel apply a feathered edge to seal termination and shed water.
10. Treat membrane deficiencies and/or damaged areas to membrane with **Sopraseal Stick 130** and **130-S** membrane. Burn off thermofusible plastic film on the surface of the membrane and install a membrane patch extending minimum 100 mm (4 in) beyond limits of repair area. Seal terminations with heat and using a round-nosed trowel.

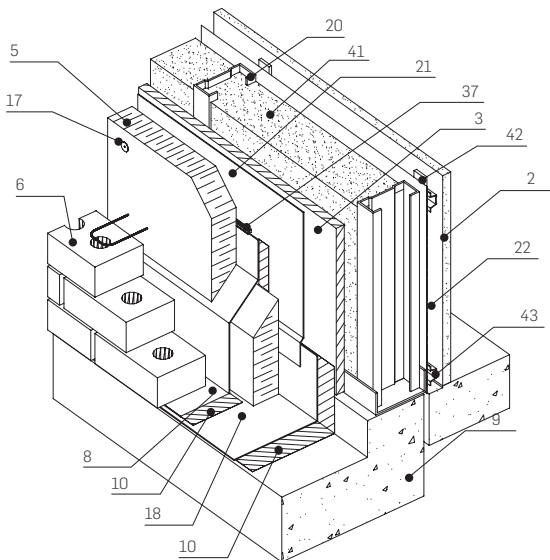
5.1.3 Sopraseal Stick VP

1. For inside or outside corners, cut a strip of membrane that is 305 mm (12 in) in a length. Peel the release film and position the strip into place with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom. Press the material in place so that it adheres to the substrate.
2. On walls, peel off the top portion of the silicone release film and adhere the membrane to the substrate, making sure that the membrane is well aligned.
3. Gradually peel off the remaining silicone release film, making sure the membrane is kept tight and adheres completely to avoid air pockets and wrinkles. Side lap joints must be a minimum of 50 mm (2 in) and end lap joints must be a minimum of 75 mm (3 in).
4. Once the membrane is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
5. Install air barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
6. Use **Sopraseal Sealant** with the membrane to seal around details, reverse laps and critical areas. At the end of each day work seal the top edge of the membrane where it meets the substrate with **Sopraseal Sealant**. Trowel apply a feathered edge to seal termination and shed water.
7. Treat membrane deficiencies and/or damaged areas to membrane with **Sopraseal Stick VP** membrane. Install a membrane patch extending minimum 100 mm (4 in) beyond limits of repair area, treat terminations with specified termination sealant. Trowel sealant to shed water.

DETAILS

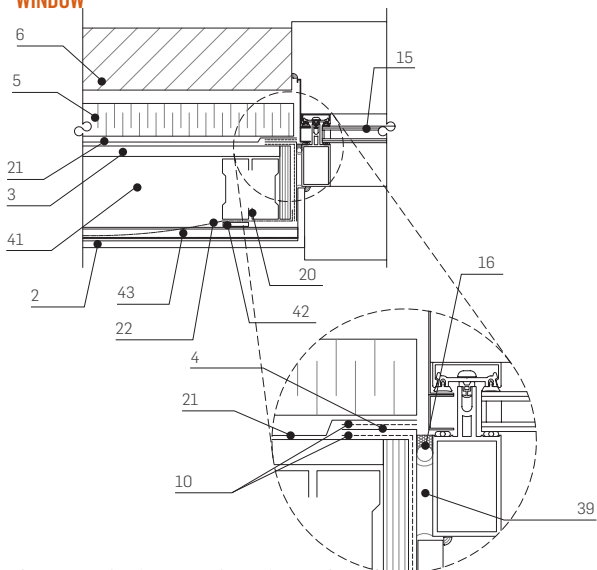
SOPRASEAL STICK VP

STEEL STUD WALL FOUNDATION JUNCTION



SOPRASEAL STICK VP

WINDOW



5.2 INSTALLATION OF HEAT-WELDED MEMBRANES

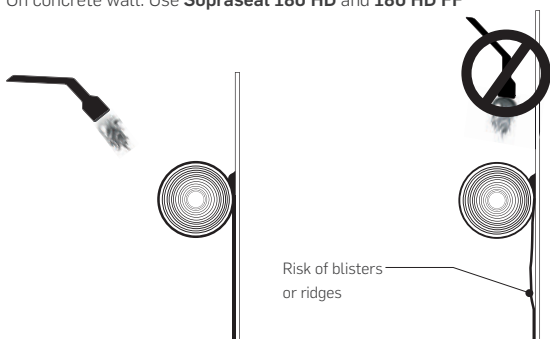
Torching technique

The installation of the membrane can be applied vertically starting at the bottom of wall or can be applied horizontally. The flame should only 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 panel. The weld will be more effective if the movement of the torch, and hence its flame, is continuous and even, in a linear pattern from right to left and left to right.

Never direct the flame between the roll and the panel. This could trap air under the membrane and cause blisters or ridges in the upper layer.

On exterior gypsum board: Use **Sopraseal 60** and **60 FF**

On concrete wall: Use **Sopraseal 180 HD** and **180 HD FF**

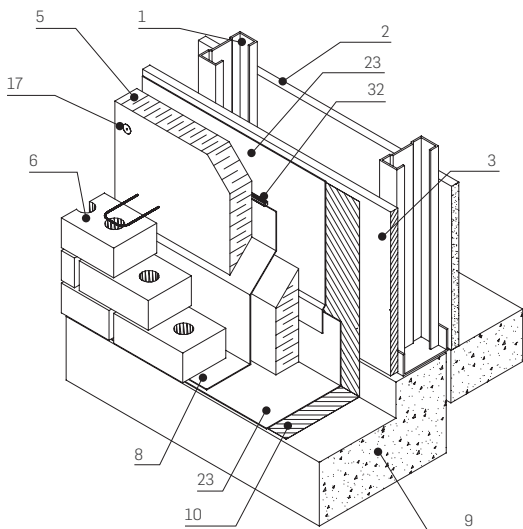


5.2.1 Sopraseal 60 and 60 FF, Sopraseal 180 HD and 180 HD FF

1. Prime the clean, sound substrate with **Elastocol 500**.
2. For inside or outside corners, cut a strip of membrane that is 305 mm (12 in) in a length. Position the strip into place with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom and weld the membrane using a propane gas torch.
3. Install membrane around penetrations and details. Prime surfaces and provide minimum 100 mm (4 in) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
4. On wall, align and heat-weld the membrane providing complete adhesion to the substrate. All lap joints must be a minimum of 50 mm (2 in).
5. Seal termination of the membrane with heat and using a round-nosed trowel.
6. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
7. At the end of each day work seal the top edge of the membrane where it meets the substrate with **Sopramastic**. Trowel apply a feathered edge to seal termination and shed water.
8. Treat membrane deficiencies and/or damaged areas to membrane with **Sopraseal 60, 60 FF, 180 HD and 180 HD FF** membrane. Burn off thermofusible plastic film on the surface of the membrane and install a membrane patch extending minimum 100 mm (4 in) beyond limits of repair area. Seal terminations with heat and using a round-nosed trowel.

DETAILS

SOPRASEAL 60 AND 60 FF, 180 HD AND 180 HD FF STEEL STUD WALL FOUNDATION JUNCTION



5.3 APPLICATION OF LIQUID MEMBRANES

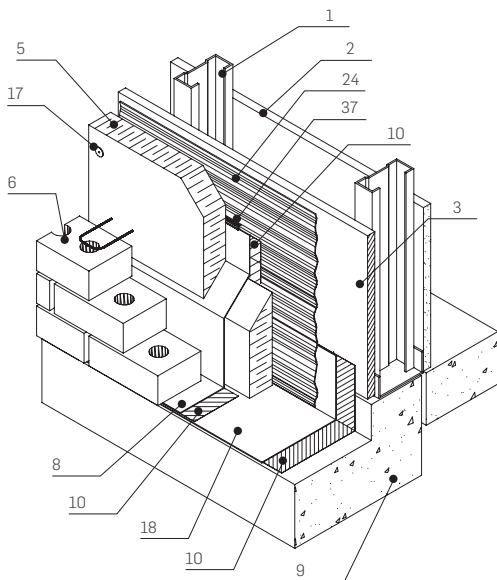
5.3.1 Sopraseal LM 200 S

1. Joints and cracks less than 6 mm (1/4 in) wide can be filled with **Sopraseal LM 200 T** without using a reinforcement strip. It is important to let the product cure completely inside cracks before resuming application of **SOPRASEAL LM 200 S** over the entire surface.
2. Cracks greater than 6 mm (1/4 in) wide must be covered with a 100 mm (4 in) strip of **Sopraseal Stick 1100 T** or **Sopragrip F** self-adhesive membrane. **Sopraseal Stick Primer** must be applied over areas to be covered by the self-adhesive. Use a hard roller to apply pressure over the entire surface of the membrane to ensure perfect adhesion.
3. For inside or outside corners, install a strip of pre-cut **Sopraseal Stick 1100 T** membrane that is 305 mm (12 in) in a length. Peel the release paper and position the strip into primed surface with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom. Press the material in place so that it adheres to the substrate.
4. Install **Sopraseal Stick 1100 T** membrane strip around penetrations and details. Prime surfaces with **Sopraseal Stick Primer** and provide minimum 100 mm (4 in) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
5. Once the **Sopraseal Stick 1100 T** membrane strip is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
6. **Sopraseal LM 200 S** is spray applied. The substrate must be clean and sound. Debris and any contaminants, such as water, oil or grease, may compromise adhesion. Apply 2 mm (80 mil) wet thickness of **Sopraseal LM 200 S** over the whole surface.
7. Use the same procedure to install **Sopraseal Stick 1100 T** self-adhesive membrane around window and door openings and to other details. When **Sopraseal Stick 1100 T** is installed over **Sopraseal LM 200 S**, the liquid membrane must be fully dry and primed with **Sopraseal Stick Primer** before installation of the self-adhesive membrane. Allow material to dry at temperatures of 2°C (36°F) or higher. It should be dry to touch after 1 to 3 hours.
8. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
9. Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.
10. The contractor should inspect all installed membranes meticulously at the end of each day of work and insulation must be installed as soon as possible following inspection by designer authority.

DETAIL

SOPRASEAL LM 200 S

STEEL STUD WALL FOUNDATION JUNCTION



*See the legend of details at the end of the section 5 page 64

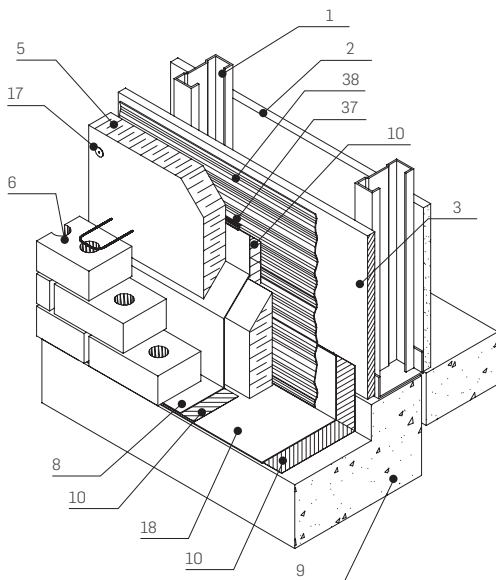
5.3.2 Sopraseal LM 200 T

1. Joints and cracks less than 6 mm (1/4 in) wide can be filled with **Sopraseal LM 200 T** without using a reinforcement strip.
2. Cracks greater than 6 mm (1/4 in) wide must be covered with a 100 mm (4 in) strip of **Sopraseal Stick 1100 T** or **Sopragrip F** self-adhesive membrane. **Sopraseal Stick Primer** must be applied over areas to be covered by the self-adhesive. Use a hard roller to apply pressure over the entire surface of the membrane to ensure perfect adhesion.
3. For inside or outside corners, install a strip of pre-cut **Sopraseal Stick 1100 T** membrane that is 305 mm (12 in) in a length. Peel the release paper and position the strip into primed surface with center of the material on the edge of the corner. Hold the material in place so that it is plumb from top to bottom. Press the material in place so that it adheres to the substrate.
4. Install **Sopraseal Stick 1100 T** membrane strip around penetrations and details. Prime surfaces with **Sopraseal Stick Primer** and provide minimum 100 mm (4 in) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
5. Once the **Sopraseal Stick 1100 T** membrane strips is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
6. Apply **Sopraseal LM 200 T** with trowel and brush. The substrate must be clean and sound. Debris and any contaminants, such as water, oil or grease, may compromise adhesion. Apply 2,3 mm (90 mil) wet thickness of **Sopraseal LM 200 T** over the whole surface.
7. Use the same procedure to install **Sopraseal Stick 1100 T** self-adhesive membrane around window and door openings and to other details. When **Sopraseal Stick 1100 T** is installed over **Sopraseal LM 200 T**, the liquid membrane must be fully dry and primed with **Sopraseal Stick Primer** before installation of the self-adhesive membrane. Allow material to dry at temperatures of 2°C (36°F) or higher. It should be dry to touch after 1 to 3 hours.
8. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
9. Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.
10. The contractor should inspect all installed membranes meticulously at the end of each day of work and insulation must be installed as soon as possible following inspection by designer authority.

DETAIL

SOPRASEAL LM 200 T

STEEL STUD WALL FOUNDATION JUNCTION



*See the legend of details at the end of the section 5 page 64

5.3.3 Sopraseal LM 202 VP and Sopraseal LM 203

1. Joints and cracks less than 6 mm (1/4 in) wide can be filled with **Sopraseal LM 200 T**.
2. Cracks greater than 6 mm (1/4 in) wide must be covered with a 100 mm (4 in) strip of **Sopragrip F** self-adhesive membrane. **Sopraseal Stick Primer** must be applied over areas to be covered by the self-adhesive.
3. Once the **Sopragrip F** membrane strips are installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
4. **Sopraseal LM 202 VP** and **Sopraseal LM 203** are spray applied. The substrate must be clean and sound. Debris and any contaminants, such as water, oil or grease, may compromise adhesion.
5. Apply **Sopraseal LM 202 VP** or **Sopraseal LM 203** at sheathing joints, and inside and outside corners. Immediately place **Sopraseal Mesh** at sheathing joints, inside and outside corners of walls.
6. Apply **Sopraseal LM 203** at openings and immediately place **Sopraseal Quick Corner** and **Sopraseal Mesh**.
7. **Sopraseal Quick Corner** and **Sopraseal Mesh** must then be completely saturated with **Sopraseal LM 203**.
8. Apply **Sopraseal LM 202 VP** or **Sopraseal LM 203** membrane onto the entire surface, using spray equipment, paint brushes or nap rollers. Allow to dry completely from 2 to 4 hours. See chart below for the thickness and the number of coat to apply according to the substrate.
9. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
10. Use **Sopraseal Sealant** with the membrane to seal around details and critical areas.
11. The contractor should inspect all installed membranes meticulously at the end of each day of work and insulation must be installed as soon as possible following inspection by designer authority.

SUBSTRATES	Number of coat	Thickness*
SOPRASEAL LM 202 VP		
Exterior sheathing, cement-boards (ASTM C1325 Type A Exterior), gypsum sheathing (ASTM C79/ ASTM C1396), or concrete.	1	0.25 mm (10 mil)
Concrete/masonry treated with SOPRASEAL LM BLOCK FILLER (fully cured).	1	0.50 mm (20 mil)
Concrete/masonry not treated with SOPRASEAL LM BLOCK FILLER , plywood or OSB.	2	0.25 mm (10 mil)
SOPRASEAL LM 203		
Exterior sheathing, cement-boards (ASTM C1325 Type A Exterior), gypsum sheathing (ASTM C79/ ASTM C1396), plywood, OSB, concrete, CMU, concrete/masonry not treated with SOPRASEAL LM BLOCK FILLER .	2	0.33 mm (13 mil)
Concrete/masonry treated with SOPRASEAL LM BLOCK FILLER (fully cured), other substrats that meets ASTM C 1177 Standards.	1	0.66 mm (26 mil)

* Thickness should be estimated with a wet film gauge while the product is still wet.

5.3.3.1 Sopraseal LM Block Filler

1. Verify that the substrate is flat, continuous and unbroken and that the masonry joints are struck flush or clean. Any missing or damaged mortar or block must be repaired or replaced to provide a flat surface prior to the application of **Sopraseal LM Block Filler**. Allow mortared structures to cure for at least 10 days before applying **Sopraseal LM Block Filler**. Point or seal any cracks or voids that are over 2 mm (1/16 in) wide.

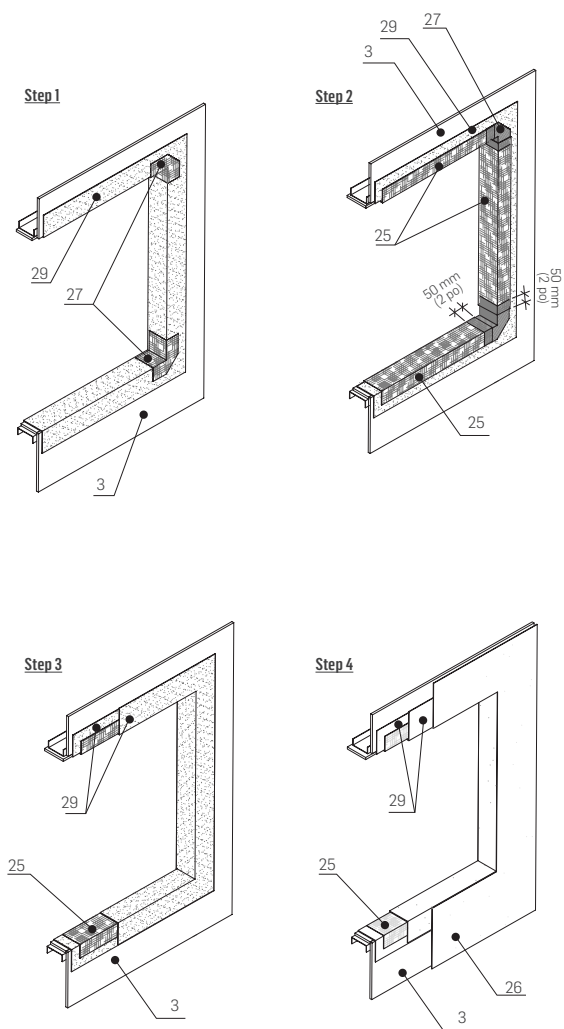
2. Apply 1 layer of minimum 1 mm (40 mil) of wet film thickness of **Sopraseal LM Block Filler** on the masonry or concrete surface with spray equipment or a nap roller.

3. Let dry completely for 4 hours.

4. The contractor should inspect all installed membranes meticulously at the end of each day of work.

DETAILS

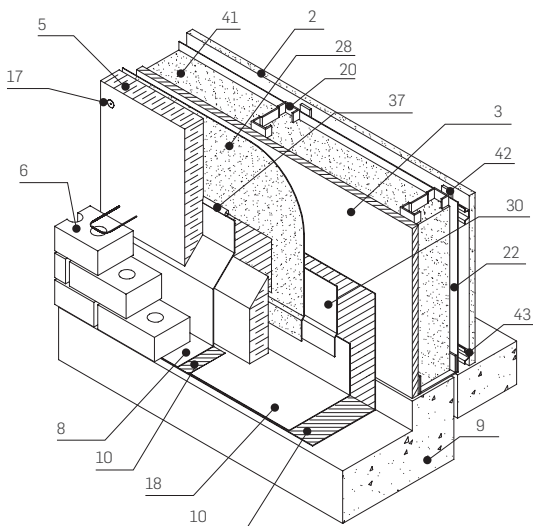
SOPRASEAL LM 203 WINDOW



DETAILS

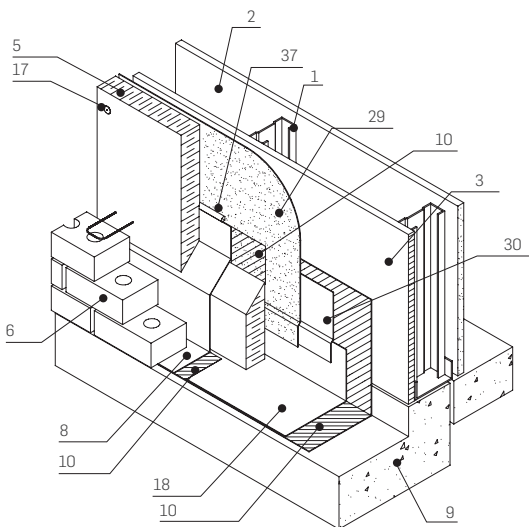
SOPRASEAL LM 202 VP

STEEL STUD WALL FOUNDATION JUNCTION



SOPRASEAL LM 203

STEEL STUD WALL FOUNDATION JUNCTION

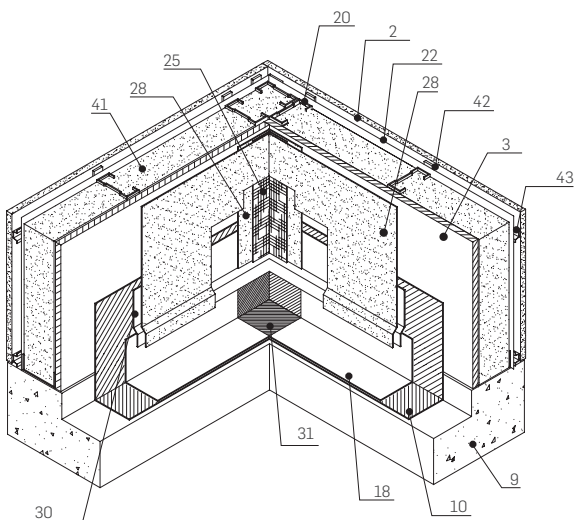


*See the legend of details at the end of the section 5 page 64

DETAILS

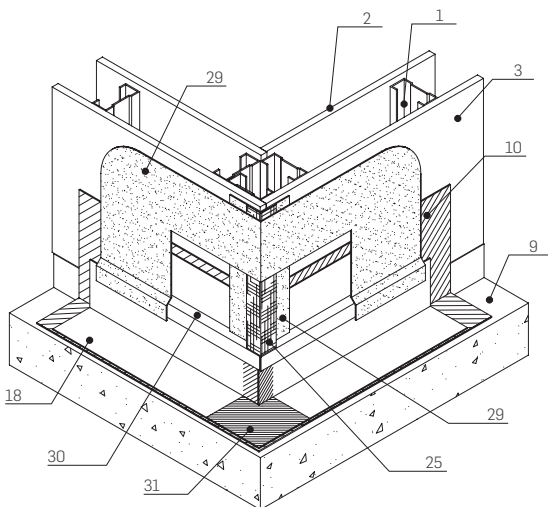
SOPRASEAL LM 202 VP

INSIDE CORNER OF OUTSIDE WALL



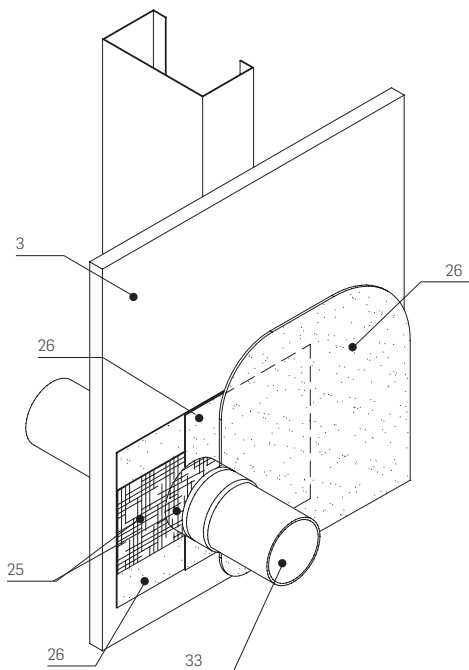
SOPRASEAL LM 203

OUTSIDE CORNER OF OUTSIDE WALL



DETAILS

SOPRASEAL LM 202 VP AND SOPRASEAL LM 203 PENETRATION



5.4 INSTALLATION OF LAMINATED BOARD

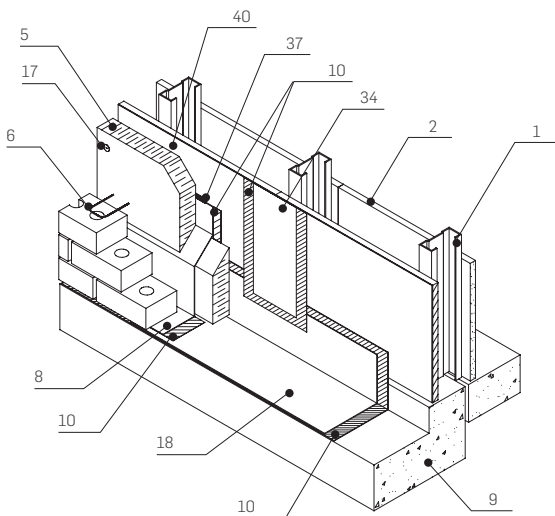
5.4.1 Sopraseal Xpress G

1. Install **Sopraseal Xpress G** panels horizontally on the mounts and offset joints vertically a minimum of 400 mm (16 in). Abut boards perfectly without applying excessive pressure.
2. Fasten with **Sopraseal Xpress Screws** at every 203 mm (8 in) around the panel perimeter and at every 203 mm (8 in) on the vertical mounts. Screws must be drilled flush with the membrane surface without perforating it.
3. All joints of board must be covered by a 150 mm (6 in) strip of **Sopraseal Stick 1100 T** self-adhesive membrane centered over the joint. Prime all surfaces to receive a self-adhesive membrane.
4. Begin installation with horizontal strip on bottom wall joints. Install membrane strips on vertical joints overlapping minimum 50 mm (2 in) on the horizontal strip below. Terminate membrane strip 25 mm (1 in) from horizontal board joint allowing for minimum 50 mm (2 in) overlap with the horizontal membrane strip that is to be installed above. Install membrane strips centered on horizontal joints covering the top termination of vertical strips by minimum 50 mm (2 in).
5. Treat penetrations with **Sopraseal Stick 1100 T** membrane. Prime surfaces and provide minimum 4 inches (100 mm) lap seam onto adjoining surfaces, treat terminations with specified termination sealant. Trowel sealant to shed water.
6. Once the membrane is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion to the substrate.
7. Install air/vapour barrier membrane to create a continuous seal at walls, roofs and foundations junctions.
8. Use **Sopraseal Sealant** with the membrane to seal around details, reverse laps and critical areas.
9. Treat membrane deficiencies and/or damaged areas to membrane with **Sopraseal Stick 1100 T** membrane. Prime surfaces with **Sopraseal Stick Primer** and install a membrane patch extending minimum 100 mm (4 in) beyond limits of repair area, treat terminations with specified termination sealant. Trowel sealant to shed water.

DETAILS

SOPRASEAL XPRESS G

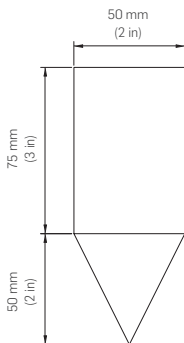
STEEL STUD WALL FOUNDATION JUNCTION



5.5 WINDOW SEALING

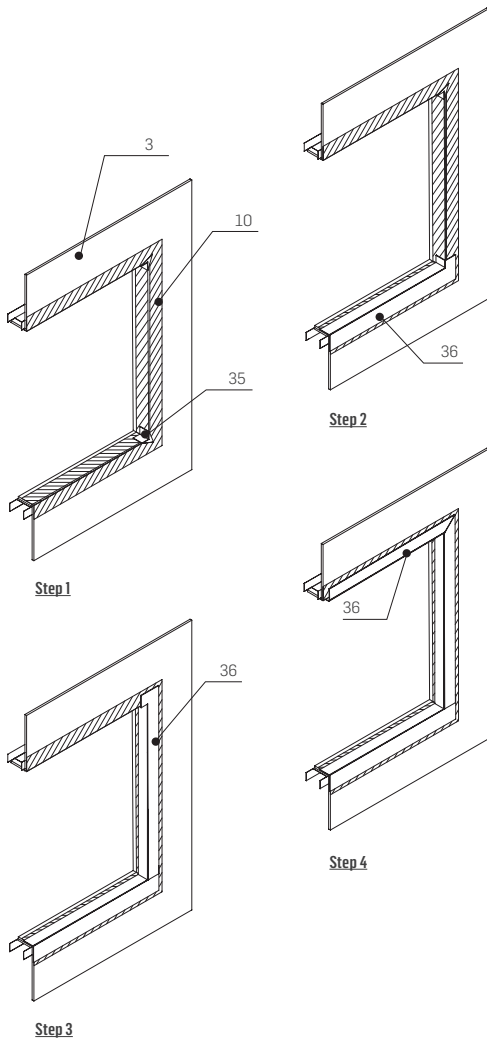
1. Apply **Sopraseal Stick Primer** by brush or nap roller onto the opening edges (inside and outside the window frame), making sure that the frame is clean and sound. Prime a 75 mm (3 in) wide band on the exterior side of frame. **Sopraseal Stick Flashpro** can be used in conjunction with **Sopraseal Stick 1100 T**, **Sopraseal Xpress G**, **Sopraseal LM 200 S** and **Sopraseal LM 200 T** without **Sopraseal Stick Primer**.
2. Prepare and install the gusset plates inside frame corners with **Sopraseal Stick 1100 T**, **Sopraseal Stick Flashpro** or **Soprasolin HD**.
3. Once gussets are installed, use a hard roller to apply pressure over all gussets to ensure full adhesion.
4. Prepare **Sopraseal Stick 1100 T**, **Sopraseal Stick Flashpro** or **Soprasolin HD** strips and install them in the following sequence: on the bottom edge of frame, on both sides of frame and on the top edge of frame. Ensure minimum 50 mm (2 in) overlap at all side laps and minimum 50 mm (2 in) overlap at all end laps of membrane.
5. Once the membrane is installed, use a hard roller to apply pressure over the entire surface to ensure uniform adhesion.
6. Apply **Sopramastic** or **Sopraseal Sealant** at the edge of the top membrane in cases where window sealing is done after the installation of the wall air barrier (inverted seal).

5.5.1 Gusset



DETAILS

SEALING OF WINDOW



*See the legend of details at the end of the section 5 page 64

DETAILS

Legend of details

- 1 = Uninsulated steel studs
- 2 = Interior finish
- 3 = Support panel
- 4 = Sopraseal Stick 1100 T
- 5 = Insulation Sopra-Iso V or Sopra-XPS
- 6 = Cladding (brick)
- 7 = Sopramastic sealant or Sopraseal Sealant
- 8 = Flashing membrane Sopraseal Stick 1100 T or Sopraseal WFM (optional)
- 9 = Foundation
- 10 = Primer
- 11 = Steel deck
- 12 = Structure
- 13 = Reinforcing strip Sopraseal Stick 1100 T 150 mm (6 in) at deflection joints.
- 14 = Metal flashing
- 15 = Window
- 16 = Backer rod and Sopraseal Sealant
- 17 = Fasteners
- 18 = Flashing membrane Sopraseal Stick 1100 T cut roll
- 19 = Sopraseal Stick 130 & 130-S
- 20 = Insulated Steel studs
- 21 = Sopraseal Stick VP
- 22 = Vapour barrier
- 23 = Sopraseal 60 or 60 FF, Sopraseal 180 HD or 180 HD FF
- 24 = Sopraseal LM 200 S
- 25 = Sopraseal Mesh
- 26 = Sopraseal LM 202 VP or Sopraseal LM 203
- 27 = Sopraseal Quick Corners
- 28 = Sopraseal LM 202 VP
- 29 = Sopraseal LM 203
- 30 = Sopragrip F
- 31 = Reinforcing Sopraseal Stick 1100 T or Sopraseal WFM (corner)
- 32 = Sopramastic
- 33 = Pipe
- 34 = Sopraseal Stick 1100 T cut roll
- 35 = Gussets
- 36 = Soprasolin HD, Sopraseal Stick Flashpro or Sopraseal Stick 1100 T
- 37 = Sopraseal Sealant
- 38 = Sopraseal LM 200 T
- 39 = Spray foam
- 40 = Sopraseal Xpress G
- 41 = Sopra-Cellulose
- 42 = Sopra-Cellulose Strip
- 43 = Metal furring

SAFETY MEASURES

SAFETY MEASURES

6.1 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 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 be 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 dangerous to your health, 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

Air/vapour barrier membranes should not be installed when it is raining, snowing or very humid.

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

6.2 TORCHING SPECIAL PRECAUTIONS

Follow the specifications, notices, documents, and guidelines of Provincial/Federal 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 fabric. 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 (2,000°F). 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 [10 ft.] 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 CSA-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 smoldering 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.

6.3 SPECIAL PRECAUTIONS FOR PROPANE GAS TANKS

Secure and fasten propane gas tanks in an upright position at least 3 m (10 ft.) 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, available from **Soprema**.

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 (120°F). 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.

6.4 SPECIAL PRECAUTIONS FOR PRIMER APPLICATION

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

Use a respiratory protection device approved by the National Institute of Occupational Safety and Health.

Wear chemical-resistant gloves (natural rubber, polyvinyl alcohol reinforced, neoprene, nitrile), 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 of undiluted 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.

6.5 MONITORING AFTER THE COMPLETION OF WELDING WORK

At the end of each workday, make sure there are no smoldering 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.

6.6 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.

6.7 PRIMERS 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 13 lb (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 the summer. They must be stored at least 10 m (30 ft.) 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 solvent 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 (33 ft.) 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.

6.8 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.

FEEL FREE TO CONTACT SOPREMA IF YOU REQUIRE ANY ADDITIONAL INFORMATION.

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 specializing in the production of waterproofing and insulation products, as well as vegetative and soundproofing solutions, for the building and civil engineering sectors.

SOPREMA.CA

1.877.MAMMOUTH
