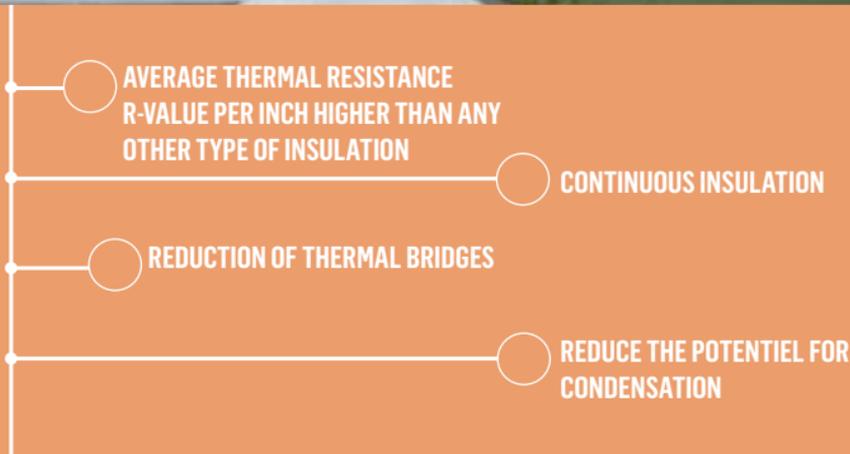


SOPRA-ISO V INSTALLATION GUIDE

INTRODUCTION, PRODUCTS, APPLICATION, RESTRICTIONS, INSPECTION
AND PREPARATION, INSTALLATION, STORAGE AND HANDLING

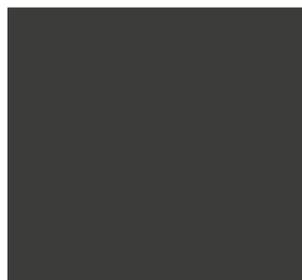


SOPRA-ISO V

INTRODUCTION

Insulating boards enable reduction of heat and cold transfers between a building's interior and exterior. To perform properly, walls must be designed such that they offer high thermal resistance (R-value), and insulation must be continuous. It has been clearly demonstrated that continuous insulation is the most efficient method of building insulation for achieving energy savings. It eliminates thermal bridging through steel, wood and concrete structures. Polyisocyanurate is the material of choice for increasing the R-value of walls with boards of minimal thickness.

SOPRA-ISO V boards feature an excellent R-value and low water absorption, delivering unparalleled versatility for wall insulation applications. Their R-value per inch of continuous insulation is one of the highest among of all types of rigid insulation: the result is thinner walls and reduction of thermal bridges.



(CREDIT PHOTO: STÉPHANE GROLEAU)

PRODUCTS

SOPRA-ISO V PLUS is a closed-cell polyisocyanurate foam insulating board with nonreflective coated glass-mat on both sides.

Boards are available in 1.2 m (4 ft.) x 2.4 m (8 ft.) and in multiple thicknesses ranging from 13 to 102 mm (0.5 to 4.0 in.).



R-value and RSI SOPRA-ISO V PLUS		
Board thickness	RSI	R-value
13.0 mm (0.5 in.)	0.5	3.0
19.0 mm (0.75 in.)	0.8	4.5
25.4 mm (1.0 in.)	1.1	6.0
38.1 mm (1.5 in.)	1.6	9.0
50.8 mm (2.0 in.)	2.1	12.1
63.5 mm (2.5 in.)	2.7	15.3
76.2 mm (3.0 in.)	3.3	18.5
89.0 mm (3.5 in.)	3.8	21.7
102.0 mm (4.0 in.)	4.4	25.0
(All values are nominal)		

SOPRA-ISO V ALU is a closed-cell polyisocyanurate foam insulating board laminated with a radiant barrier reflective foil facer on the back side and a non-reflective aluminium facer coated with acrylic on the top surface.

Boards are available in 1.2 m (4 ft.) x 2.4 m (8 ft.) and in multiple thicknesses ranging from 13 to 102 mm (0.5 to 4.0 in.).



R-value and RSI SOPRA-ISO V ALU		
Board thickness	RSI	R-value
13.0 mm (0.5 in.)	0.6	3.3
19.0 mm (0.75 in.)	0.9	5.0
25.4 mm (1.0 in.)	1.1	6.5
38.1 mm (1.5 in.)	1.7	9.8
50.8 mm (2.0 in.)	2.3	13.1
63.5 mm (2.5 in.)	2.8	16.0
76.2 mm (3.0 in.)	3.5	19.7
89.0 mm (3.5 in.)	3.9	22.2
102.0 mm (4.0 in.)	4.6	26.0
(All values are nominal)		

APPLICATIONS

SOPRA-ISO V PLUS and **SOPRA-ISO V ALU** insulating boards are designed for all types of construction—commercial, institutional and residential. They can be used on most surfaces using fasteners or adhesive, including concrete, wood, wood studs, steel studs, exterior grade gypsum, and air barrier / vapour barrier membranes.

ATTACHING BOARDS

■ Wood or metal studding

Boards must be attached using fasteners at 305 mm (12 in.) on centre at board perimeter, and at 406 mm (16 in.) on centre onto the vertical studs.

Boards are lightweight and easily installed on wood or metal studs using fasteners such as 50 mm (2 in.) or larger washers with the fasteners, Wind Devil 2 by Wind-Lock, Insulfast System by Ramset or equivalent.

■ Concrete or cinderblock walls

With masonry :

Boards must be installed using Sopraseal LM 200 T adhesive and supported with masonry anchors.

With exterior cladding:

Boards must be attached using fasteners spaced at 305 mm (12 in.) o.c. at board perimeter, and at 406 mm (16 in.) o.c. elsewhere.

For concrete walls, use Insulfast System by Ramset, X-IE by Hilti or equivalent fasteners. Use 50 mm (2 in.) or larger washers with the fasteners.

Mechanical fastening (minimum penetration by substrate type)

- Wood stud screws : 19 mm (3/4 in.)
- Metal stud screws: 6.5 mm (1/4 in.)
- Concrete screws: 19 mm to 32 mm (3/4 to 1 1/4 in.)



Sopraseal LM 200 T



Fasteners

RESTRICTIONS

- SOPRA-ISO V insulating boards cannot be used as structural elements.
- SOPRA-ISO V insulating boards must not be exposed for more than 60 days.
- SOPRA-ISO V insulating boards cannot be used as a nailing base, regardless of the type of cladding.
- SOPRA-ISO V insulating boards are designed solely for above-grade wall applications.

INSPECTION AND PREPARATION PRIOR TO INSTALLATION

- Before installation, inspect Sopra-Iso V insulating boards to ensure none has been damaged during shipping or handling. Damaged boards must not be installed.
- Discard any damaged boards.
- Keep Sopra-Iso V boards away from any flame at all times.
- If installing Sopra-Iso V boards in windy conditions, take necessary measures to ensure boards are not damaged.
- If installing Sopra-Iso V boards directly on wood or metal studding, studs must be spaced no wider than 610 mm (24 in.) o.c.
- All boards must be dry before installation; do not install any board that is wet or has been damaged by moisture.

INSTALLATION

INSTALLATION ON SUPPORT PANELS

- 1** Before installing **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** insulating boards, ensure underlying air barrier membrane has been properly installed per manufacturer recommendations and is undamaged.
- 2** Install **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** boards horizontally or vertically, and with printed side facing outward. Use boards at full length to minimize number of joints required.
- 3** Install first row of **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** boards at bottom of wall, at same height as support panel.
- 4** Stagger **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** board joints compared with those of support panels. Butt boards against one another perfectly without applying excessive pressure.
- 5** Adjust all boards so as to leave no space between board joints or around penetrations.
- 6** Cut boards as needed at penetrations and openings, and to accommodate exterior cladding fasteners. Seal around penetrations using a sealant product.
- 7** Attach boards using fasteners at intervals of 305 mm (12 in.) o.c. at board perimeter, and at 406 mm (16 in.) o.c. onto the vertical studs. Adjust fastener length to insulation thickness.
- 8** Ensure insulating board edges overlap at inside and outside wall corners. Fasten each board to nearest stud.
- 9** At tops of walls, install last row of **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** insulation boards flush with tops of support panels.
- 10** If necessary, seal all **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** joints and fastener points.

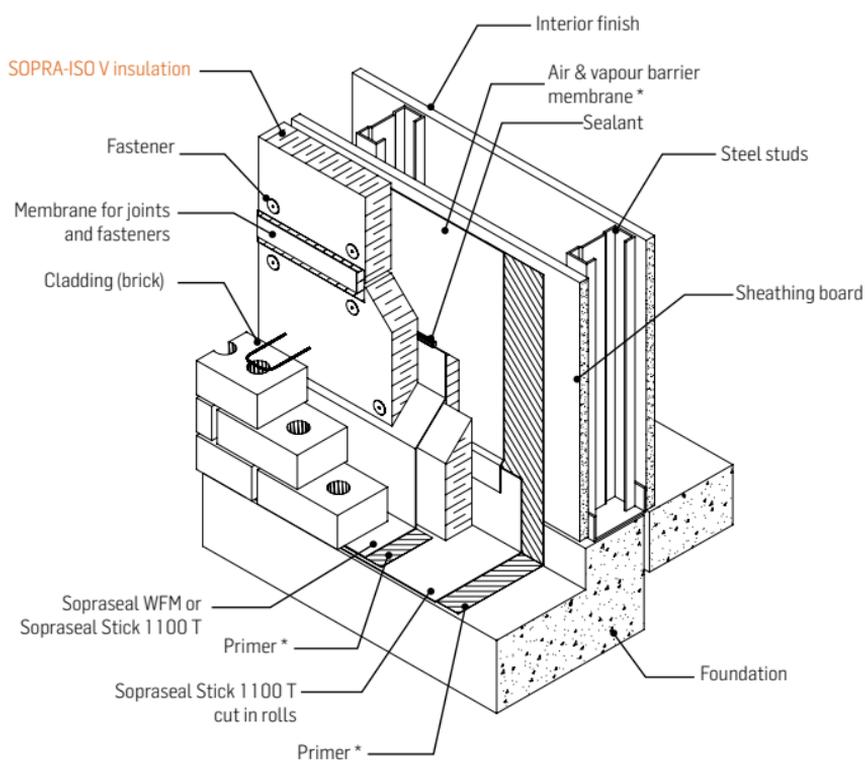
Membrane for tape at joints and fasteners:

SOPRA-ISO V PLUS: Use **SOPRASEAL STICK 600 TC** centered over the joints previously primed with **SOPRASEAL STICK PRIMER**.

SOPRA-ISO V ALU: Use **SOPRASEAL STICK 600 TC** (don't require primer before the installation of the membrane), or use **AYR-FOIL** by RESISTO when the temperature is above 10°C.

DETAIL

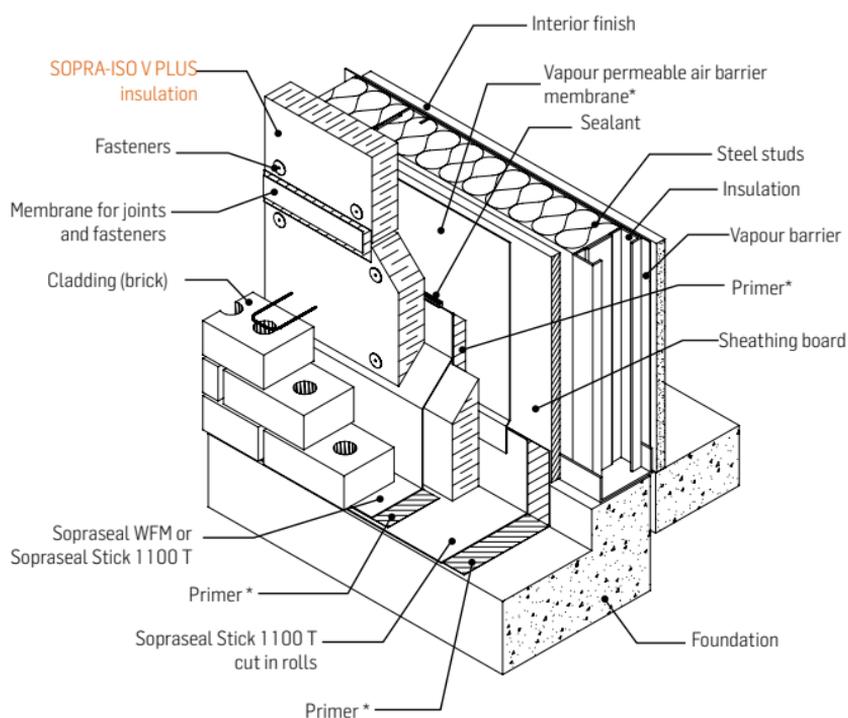
STUD WALL FOUNDATION JUNCTION ON SUPPORT PANELS - SOPRA-ISO V (PAR_23) Air & vapour barrier



* See reference table of Sopraseal membranes and primers.

DETAIL

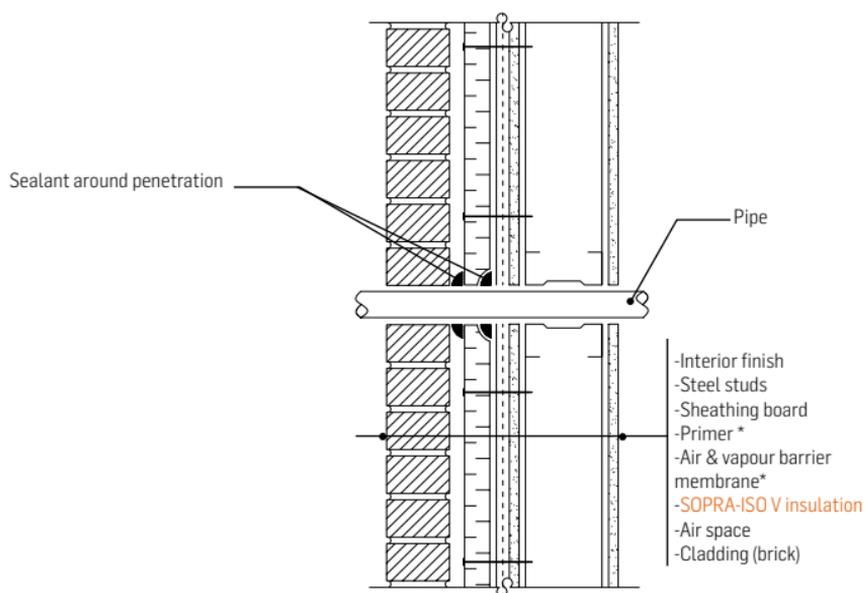
STUD WALL FOUNDATION JUNCTION ON SUPPORT PANELS - SOPRA-ISO V (ISOV_06) Vapour permeable air barrier



* See reference table of Sopraseal membranes and primers.

DETAIL

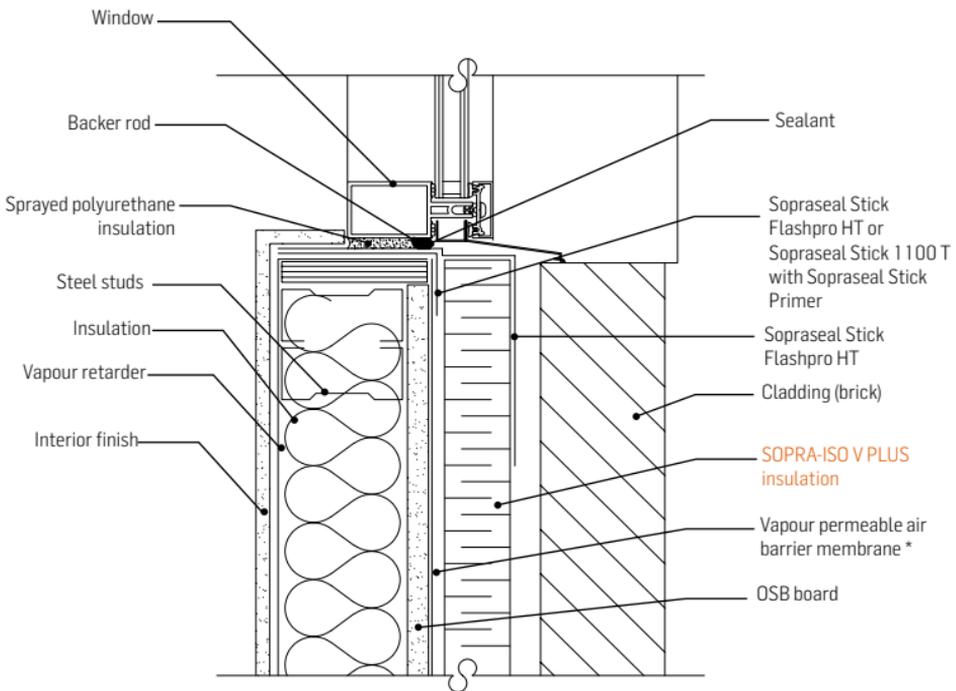
PIPE PENETRATION - SOPRA-ISO V (ISOV_04) Air & vapour barrier



* See reference table of Sopraseal membranes and primers.

DETAIL

SEALING OF WINDOWS - SOPRA-ISO V (ISOV_09) Vapour permeable air barrier



* See reference table of Sopraseal membranes and primers.

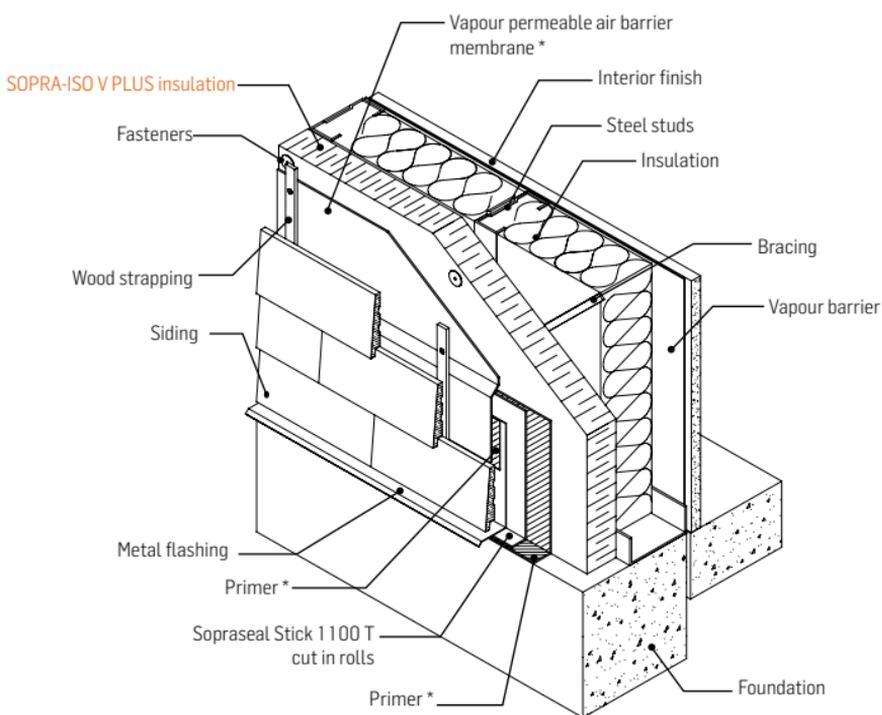
INSTALLATION

INSTALLATION ON WOOD OR METAL STUDDING

- 1** Before installing **SOPRA-ISO V PLUS** insulating boards, ensure studs are spaced no wider than 610 mm (24 in.) o.c.
- 2** Install **SOPRA-ISO V PLUS** boards horizontally or vertically, and with printed side facing outward. Use boards at full length to minimize number of joints required.
- 3** Install first row of **SOPRA-ISO V PLUS** boards at bottom of wall, at the same height as the sole or sill plate.
- 4** Stagger **SOPRA-ISO V PLUS** board joints by at least 406 mm (16 in.). Butt boards against one another perfectly without applying excessive pressure.
- 5** Adjust all boards so as to leave no space between board joints or around penetrations.
- 6** Cut boards as needed at penetrations and openings, and to accommodate exterior cladding fasteners. Seal around penetrations using a sealant product.
- 7** Attach boards using fasteners aligned with the vertical studs. Adjust fastener length to insulation thickness.
- 8** Ensure insulating board edges overlap at inside and outside wall corners. Fasten each board to nearest stud.

DETAIL

STUD WALL FOUNDATION JUNCTION ON WOOD OR METAL STUDDING - SOPRA-ISO V (ISOV_08) Vapour permeable air barrier



* See reference table of Sopraseal membranes and primers.

INSTALLATION

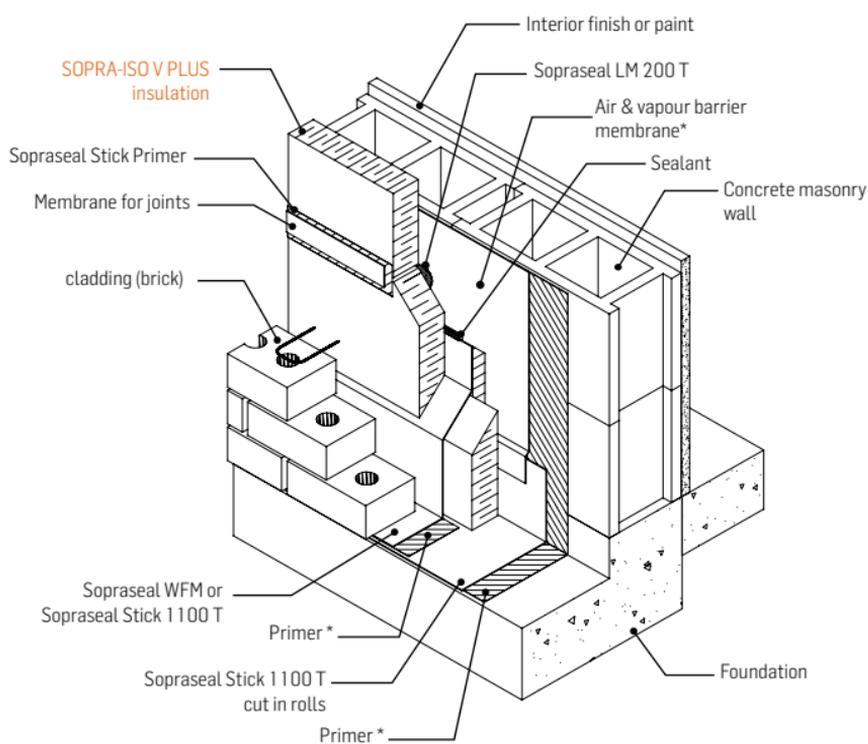
INSTALLATION ON CONCRETE WALL

- 1** Before installing **SOPRA-ISO V PLUS** insulating boards, ensure underlying air barrier membrane has been properly installed per manufacturer recommendations and is undamaged.
- 2** Install **SOPRA-ISO V PLUS** boards horizontally or vertically, and with printed side facing outward. Use boards at full length to minimize number of joints required.
- 3** Stagger **SOPRA-ISO V PLUS** horizontal and vertical joints by at least 150 mm (6 in.). Butt boards against one another perfectly without applying excessive pressure.
- 4** Adjust all boards so as to leave no space between board joints or around penetrations.
- 5** Cut boards as needed at penetrations and openings, and to accommodate exterior cladding fasteners. Seal around penetrations using a sealant product.
- 6** Attaching boards:
For masonry: Attach boards using Sopraseal LM 200 T adhesive. Boards will also be supported with masonry anchors.

OR
For cladding: Attach boards using fasteners at intervals of 305 mm (12 in.) o.c. at board perimeter, and at 406 mm (16 in.) o.c. onto the vertical studs. Adjust fastener length to insulation thickness.
- 7** Ensure insulating board edges overlap at inside and outside wall corners.
- 8** If necessary, seal all **SOPRA-ISO V PLUS** joints and fastener points. Use **SOPRASEAL STICK 600 TC** centered over the joints previously primed with **SOPRASEAL STICK PRIMER**.

DETAIL

FOUNDATION JUNCTION - CMU WALL - SOPRA-ISO V (ISOV_02) Air & vapour barrier



* See reference table of Sopraseal membranes and primers.

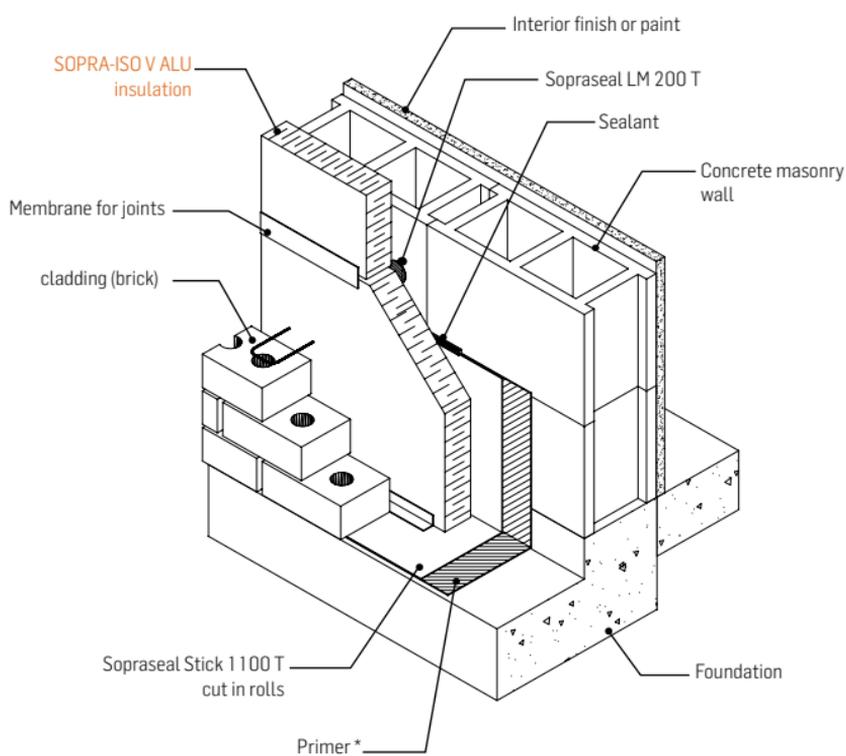
INSTALLATION

INSTALLATION OF SOPRA-ISO V ALU ON CONCRETE WALL (AIR/ VAPOUR BARRIER)

- 1 Before installing **SOPRA-ISO V ALU** insulating boards, ensure surface is clean, dry, and free of debris and dust.
- 2 Install **SOPRA-ISO V ALU** boards horizontally or vertically, and with printed side facing outward. Use boards at full length to minimize number of joints required.
- 3 Stagger **SOPRA-ISO V ALU** board horizontal and vertical joints by at least 150 mm (6 in.). Butt boards against one another perfectly without applying excessive pressure.
- 4 Adjust all boards so as to leave no space between board joints or around penetrations.
- 5 Cut boards as needed at penetrations and openings, and to accommodate exterior cladding fasteners. Seal around penetrations using a sealant product.
- 6 Attaching boards :
For masonry: Attach boards using Sopraseal LM 200 T adhesive. Boards will also be supported with masonry anchors.
 OR
For cladding: Attach boards using fasteners at intervals of 305 mm (12 in.) o.c. at board perimeter, and at 406 mm (16 in.) o.c. onto the vertical studs. Adjust fastener length to insulation thickness.
- 7 Ensure insulating board edges overlap at inside and outside wall corners.
- 8 Seal all **SOPRA-ISO V ALU** joints and fastener points. Use **SOPRASEAL STICK 600 TC** (don't require primer before the installation of the membrane), or use **AYR-FOIL** by RESISTO when the temperature is above 10°C.

DETAIL

FOUNDATION JUNCTION - CMU WALL (AIR/ VAPOUR BARRIER) - SOPRA-ISO V ALU (ISOV_01) Air & vapour barrier



* See reference table of Sopraseal membranes and primers.

INSTALLATION

INSTALLATION WITH Z BARS

- 1** Before installing **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** insulating boards, ensure underlying air barrier membrane has been properly installed per manufacturer recommendations and is undamaged.
- 2** Install **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** boards by sliding them along Z bars.
- 3** Stagger **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** vertical board joints by at least 150 mm (6 in.). Butt boards against one another perfectly without applying excessive pressure.
- 4** Adjust all boards so as to leave no space between board joints or around penetrations.
- 5** Cut boards as needed at penetrations and openings, and to accommodate exterior cladding fasteners. Seal around penetrations using a sealant product.
- 6** Attach boards using fasteners aligned with the vertical studs only at the bottom of the insulation board. Adjust fastener length to insulation thickness.
- 7** Ensure insulating board edges overlap at inside and outside wall corners. Fasten each board to nearest stud.
- 8** If necessary, seal all **SOPRA-ISO V ALU** or **SOPRA-ISO V PLUS** joints and fastener points.

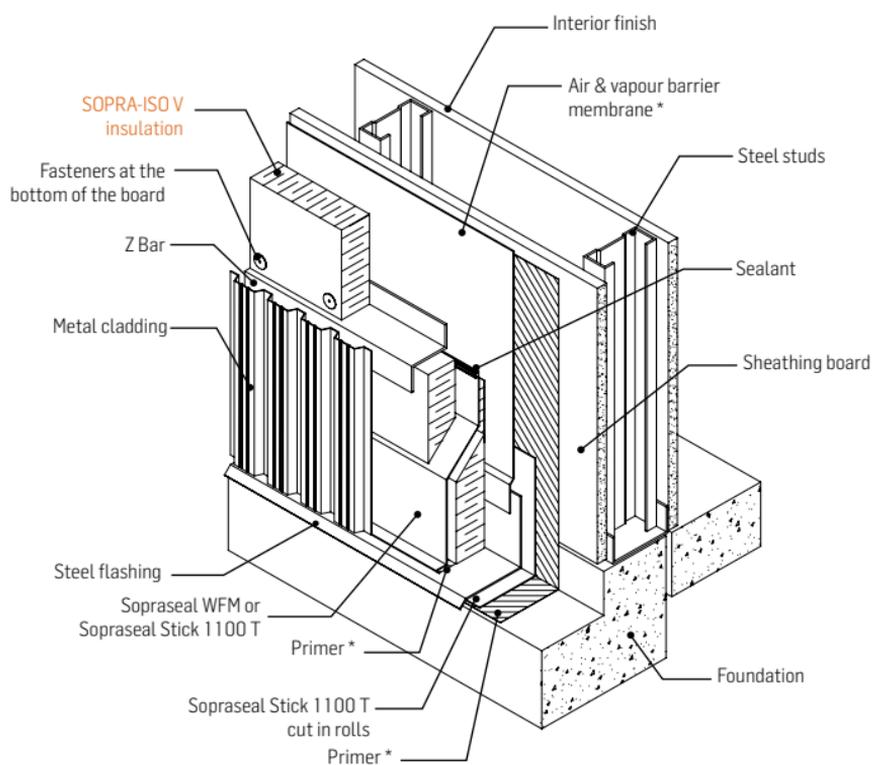
Membrane for tape at joints and fasteners:

SOPRA-ISO V PLUS: Use **SOPRASEAL STICK 600 TC** centered over the joints previously primed with **SOPRASEAL STICK PRIMER**.

SOPRA-ISO V ALU: Use **SOPRASEAL STICK 600 TC** (don't require primer before the installation of the membrane), or use **AYR-FOIL** by RESISTO when the temperature is above 10°C.

DETAIL

STUDS WALL FOUNDATION JUNCTION - WITH Z BARS - SOPRA-ISO V (ISOV_05) Air & vapour barrier



* See reference table of Sopraseal membranes and primers.

STORAGE AND HANDLING

SOPRA-ISO V boards are completely covered in a waterproof packaging designed to protect the boards during handling in factory and shipping only.

SOPRA-ISO V boards must be stacked and protected from inclement weather. When short-term outdoor storage is required, they must be stacked flat on pallets at least 100 mm (4 in.) above ground level, and covered with a waterproof covering. Do not allow water to pool on top of covering or beneath boards. Remove temporary **SOPREMA** packaging to prevent condensation from accumulating.

REFERENCE TABLE OF SOPRASEAL MEMBRANES AND PRIMERS

	PRODUCTS	PRIMERS	
	NO. PERMEABLE AIR & VAPOUR BARRIERS	Self-adhesive membranes	
Sopraseal Stick 1100 T Sopraseal Stick 130 & 130 S		Sopraseal Stick PRIMER Elastocol Stick H ₂ O Elatocol Stick Zero	
Heat-welded membranes			
Sopraseal 60 & 60 FF Sopraseal 180 HD & 180 HD FF		Elastocol 500	
Liquid applied			
Sopraseal LM 200S Sopraseal LM 200S Sopraseal LM 203		N/A	
Mechanically fastened			
Sopraseal Xpress G		N/A	
PERMEABLE AIR BARRIER		Self-adhesive membrane	
		Sopraseal Stick VP	N/A



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.

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