

Technical Data Sheet

ME010

FR Window & Door Sealing Membrane

07-10-2024 / V 2

Description

FR Window & Door Sealing Membrane (ME010) is a vapour permeable polyester, airtight and fully watertight membrane used as a perimeter membrane seal to the external side of glazed units such as windows, doors, and curtain walling.

When correctly installed with illbruck FR Membrane Adhesive (SP025), it provides an air and fully watertight seal over the construction joint which remains breathable to enable any trapped incidental moisture or condensation to escape out through to the external side of the wall construction.

It can also be used to seal and protect horizontal and vertical linear joints between sheathing boards and the main structure.

It is available in a range of pre-cut slit widths from 60 mm to 400 mm wide.

When bonded to compatible substrates with a minimum Class A2-s1, d0 fire performance with illbruck FR Membrane Adhesive (SP025), the combined system has been tested and achieves a Class B-s1, d0 fire performance in accordance with EN 13501-1.

When tested for water resistance in accordance with EN 1928 with a 2 kPa head of water, FR Window & Door Sealing Membrane (ME010) remains watertight for 24 hours and meets both the criteria for a Class W1 membrane in accordance with EN 13859-2 and the more onerous requirements stated for a Type A water resistant membrane as given in EN 13984.

Illbruck's FR Window & Door Sealing Membrane (ME010) should be used in conjunction with FR Breather Membrane Black (ME014) as a full façade breather membrane. When used together they form a continuous weather and airtight barrier around the full building envelope including structural openings.

It is important that FR Window & Door Sealing Membrane (ME010) is installed in the correct orientation with the smooth/coated side always facing outwards towards the external environment.

Features and Benefits

- Permanently UV-resistant
- Reaction to Fire Class B-s1, d0 when bonded with FR Membrane Adhesive (SP025).
- Easy to apply, fold, and manipulate
- Water resistant to EN 1928 at 24 hours and resistant to wind driven rain.
- Airtight and can achieve Passiv Haus standards.
- Breathable (vapour open)
- High range of in-service temperature resistance
- Environmentally friendly EC1+
- Non branded, plain black finish – suitable for visible applications.

Usage Purpose

Illbruck FR Window & Door Sealing Membrane (ME010) is a permanently UV stable, specially coated polyester based, airtight and watertight membrane that is compliant with the regulatory requirements for use on 'Relevant and Higher Risk Buildings' as described in Approved Document B. FR Window & Door Sealing Membrane (ME010) is available in a range of slit widths to seal the external perimeters of glazed units and curtain walling.

Available Colour

Black

Technical Data Sheet

ME010

FR Window & Door Sealing Membrane

Shelf Life

1 year when stored as recommended in original unopened packaging

Storage

Store in shaded, dry conditions and avoid stacking pallets

Technical Characteristics

Grammage	EN 1849-2	Approx. 180 g/m ²
Thickness	EN 1849-2	Approx. 0.4 mm
Resistance To Waterpenetration	EN 1928 (EN 13859-2) EN 1928 (EN 13984) EN 1027	Class W1 - watertight after 2 hours Type A - watertight after 24 hours Weathertight at 1,200 Pa
Maximum Tensile Strength Lengthwise/Crosswise	DIN 12311-1	Approx. 450/180 ± 15%
Tear Growth Resistance	EN 12310-1	Approx. 45 / 105 N ± 20%
Air Permeability	EN 12114	≤ 0.1 m ³ /m ² .h.50 Pa
Uv Resistance		Exposed - 12 months Covered - Permanent (including open joints max. 50 mm)
Flexural Behaviour In Cold Conditions	EN 1109	< -30°C
Elongation At Break	EN 12311-1	Approx. 30/35% ± 15%
Tensile Strength	DIN 12311-1	Approx. 400/230 N ± 15% Lengthwise/crosswise
Service Temperature	EN 13859-1	-40°C to +150°C
Storage		Store in shaded, dry conditions and avoid stacking pallets.
Shelf Life (Dry Room And Unopened)		1 year when stored as recommended in original unopened packaging.

Preparation

Ensure surfaces are clean, dry, free from dust, debris and any other contaminants that may affect adhesion.

Application

Intended Scope of Application:

- FR Window & Door Sealing Membrane (ME010) can be applied around the perimeter of windows and doors which project forward from the backing wall in a built-up wall construction such as SFS and timber frame constructions or sheathed walls.
- When using FR Window & Door Sealing Membrane (ME010), apply to the window perimeter first, followed by the installation of FR Breather Membrane Black (ME014) full façade membrane in order to provide a robust, fully bonded seal around the window interfaces and the façade.
- The principal purpose of FR Window & Door Sealing Membrane (ME010) is to:
 - Prevent air and water penetration through the window/door perimeter joint.
 - Manage and control moisture migration to the cold side of the wall build up.

Technical Data Sheet

ME010**FR Window & Door Sealing Membrane**

- Remain vapour open to prevent localised instances of interstitial condensation from occurring.

- Prevent unplanned air loss around windows and doors.
- FR Window & Door Sealing Membrane (ME010) adhesively fixed with SP025, when tested as a system is classified as Class B-s1, d0 in accordance with EN 13501-1 and conforms with Approved Document B, Requirement B4 and Regulation 7.

Application:

To provide maximum UV resistance and to maintain the fire performance of the product, FR Window & Door Sealing Membrane (ME010) must be applied with the smooth/ coated face exposed to the external environment. The textured side of the membrane is always bonded back to the substrate to maximise the adhesive bond when using FR Membrane Adhesive (SP025).

Window Membrane (as a perimeter or linear seal):

FR Window & Door Sealing Membrane (ME010) is suitable for sealing window, door, curtain wall assemblies and other linear joints. When installed around windows or doors, FR Window & Door Sealing Membrane (ME010) is applied to all four sides of the glazed frame with the application starting at the sill, followed by the jambs, and finishing with the head. All membrane overlaps must be a minimum 100 mm and formed in a downwards direction to provide a robust seal.

FR Window & Door Sealing Membrane (ME010) should be applied in accordance with illbruck best practice, specification guidance and method statements. For a detailed step by step guidance on applying FR Window & Door Sealing Membrane (ME010) as a perimeter membrane seal, please refer to "Application of illbruck membranes using paste adhesive", available on CPG UK website.

FR Window & Door Sealing Membrane (ME010) is bonded initially on the leading edge of the sill, jambs and head of the glazed frame using FR Membrane Adhesive (SP025). The trailing edge is then lapped a nominal 100 mm (minimum 50 mm) onto the backing structure and bonded with FR Membrane Adhesive (SP025). To bond the membrane, a 10 mm diameter bead of adhesive should be applied 15 mm inside of the membranes edge and consolidated with a seam roller to achieve a 20 – 30 mm wide x 2 - 3 mm thick continuous band around the membrane perimeter. When correctly installed, the adhesive will ooze out and be visible around the edge of the membrane.

The use of additional sealant around the perimeter of the membrane is not required. Once installed, the membrane should be inspected and any noticeable voids, gaps or pin holes sealed with SP025. The minimum bond width for any application is an unobstructed 20 mm bonding zone around the entire perimeter frame. Where this is not possible, please consult Tremco CPG UK's technical department. An optional termination bar may be considered to provide mechanical retention of the membrane. It is not necessary to smooth or scrape away the excess 'ooze'. In situations here, the depth and thickness of the ooze potentially interferes with activities carried out by follow-on trades or the seating of attachments. It is recommended that this excess ooze is carefully spread and flattened using a flat blunt bladed tool, such as a wooded/plastic spatula or sealant finishing tool, ensuring that the membrane is not subject to damage.

If the membrane interfaces with a third-party material such as sealants, hot melt, torch-down or cold applied liquid waterproofing membrane, the compatibility of the FR Membrane Adhesive (SP025) should be confirmed by consulting with Tremco CPG UK technical department. When bonding FR Membrane Adhesive (SP025) to silicone-based sealants (e.g. on sheathing board joints), the area should be primed using illbruck AT140 Primer applied directly over the cured sealant areas.

Technical Data Sheet

ME010

FR Window & Door Sealing Membrane

Guarantee / Warranty

Tremco CPG UK Ltd products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG UK Ltd written instructions and (b) in any application recommended by Tremco CPG UK Ltd, but which is proved to be defective, will be replaced free of charge. No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct.

Tremco CPG UK Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

Health And Safety Precautions

Safety data sheet must be read and understood before use.

Technical Service

Tremco CPG UK Limited has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

Technical Data Sheet

ME010

FR Window & Door Sealing Membrane

Certification

