CI/SfB		
	(31)	Ln6
CAW P10 Uniclass L6631:P91		

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Description

ME220 is an EPDM-based membrane used for sealing interfaces to provide airtight or weather tight seals. It is suitable for wide ranging application details. The material does not contain any solvents which could later migrate into adjacent surfaces.

Certifications

PoTZUS - Certificate of detail installation compliance with:
CSN EN 12207 airtightness
CSN EN 12208 water resistance
CSN EN 12210 wind loading

Colour

Black

Design

Membrane with embossed finish, wound on rolls and available in various widths. The membrane is available in different formats to suit required fixing method:

- Slit to required width and fixed with proprietary illbruck contact or paste adhesives.
- With acrylic and butyl self-adhesive strips for fixing to frame and construction substrate.*

*Available in 100 - 300 mm widths in 50 mm increments.

Dimensions

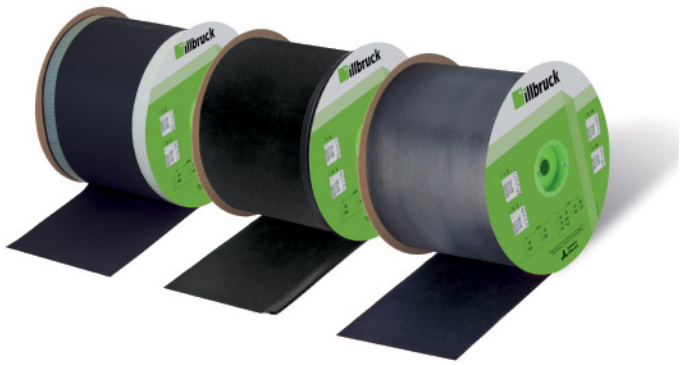
Roll length	25 m
Thickness	0.75 mm*
Width	50 - 1,500 mm
Cut rolls or full log	1,500 mm

*1.2 mm also available subject to minimum order quantity

Standard width tolerance for cut dimensions approximately 1 mm, thickness tolerance approximately 10%.

Technical Information

Property	Test Method	Result
Fire Classification	EN13501-1	Class E
Tensile Strength	DIN 53504	> 6.5 N/mm²
Elongation		> 300%
UV Resistance	DIN 53504	> 24 months
Water Vapour Resistance Factor (μ value)	DIN 52615	32,000
Moisture Vapour Permeability (sd value)	DIN 4108-3	24 m (0.75 mm thickness)
Airtightness	EN 12207	> Class 4
Watertightness	EN 12208	> Class 9A
Resistance to Wind Loading	EN 12210	> Class 3
Dynamic Puncture Resistance	EN 12691	tight (10 mm punch)
Static Puncture Resistance	EN 12730	> 250 N
Flammability Class	DIN 4102-1	B2 P-NDS04-531
Temperature Resistance		-40°C to +130°C
Application Temperature		+5°C to +35°C
Storage	Store in dry shaded conditions between +5°C and +25°C.	
Shelf Life	Unlimited when stored as recommended in original unopened packaging; 24 months with self-adhesives.	



ME220

EPDM Membrane

Usage / Purpose

ME220 EPDM membrane is used for sealing the connecting joint between a window or a façade and an adjacent structure (e.g. a wall, concrete panel, steel frame, etc.), or to provide an internal air-tight barrier in a similar detail. Where the membrane is positioned in the cold zone however, a vapour tight membrane such as EPDM can increase the risk of condensation, and a vapour open membrane such as ME501 Duo Membrane HD is normally a better solution.

If an internal and external membrane is required, in order to meet the principle of 'inside tighter than outside', ME220 should be located as the inner membrane and ME501 Duo Window Membrane HD as the outer membrane. This will ensure that the inner seal is more vapour tight than the outer which will facilitate drying out of any entrapped moisture between the two layers.

Key Benefits

- High resistance to mechanical damage
- Excellent movement capability in both transverse and longitudinal direction with excellent material recovery after elongation
- Excellent weathering, ageing and UV radiation resistance
- Excellent moisture vapour barrier

ME220
EPDM Membrane

Necessary Installation Tools

Installation requires some or all of the following depending on which adhesive(s) and primer is/are to be used: tape measure, scissors or illbruck shears, sharp knife, brush, seam roller, container for adhesive dilution for priming, mixing tool, solvent (AW421), application gun. In certain cases, adhesive tape for temporary fixing of membranes.

Surface Preparation

- The substrate surface must be dry, degreased, and free of dust and loose particles, which could negatively affect adhesion.
- Use a primer on porous surfaces (e.g. concrete, brickwork, plaster). If necessary, use isopropanol to degrease the membrane. The type and condition of substrate may dictate the choice of adhesive.
- Nominally, for porous substrates, CT113 EPDM Membrane Adhesive (contact type adhesive) is recommended and for non-porous substrates, OT015 High Tack Membrane Adhesive (paste type adhesive); however, depending on actual substrate characteristics, the adhesives can be interchanged, eg for cement particle board, either adhesive is likely to be suitable. For specific advice, please consult illbruck Technical Services Department.
- If using ME220 EPDM Membrane with self-adhesive strips, it may be required to prime the substrate if porous, damp, dusty or when ambient temperatures are < 5°C. In such cases use ME901 or ME902 Butyl & Bitumen Primer (brush or spray grade respectively).

Priming with CT113 Contact Adhesive

- Priming may be necessary or beneficial when using CT113 and OT015 Adhesives.
- As a primer, use diluted CT113 Adhesive with AW421 solvent mixed in ratio 2-3 parts AW421:1 part CT113 by volume.
- Apply the primer onto the porous substrate by brush or roller across the whole of the area to be bonded (see Fig.1).
- The adhesive may be applied only after the primer has dried fully (approximately 10 – 30 min).
- Use separate container for the primer dilution and never return the remaining material into the illbruck CT113 container!
- Consumption rate approximately 0.5 kg / 3.5 m^2.
- The use of primer onto porous materials not only improves adhesion but also reduces consumption of adhesive and substantially extends the processing time which is beneficial, particularly in higher application temperatures.

Application

- The width of the membrane must be determined with full consideration of the façade or window detail including the interior and exterior sides of the connection joint.
- The final solution must always take into account project requirements, dilatation of structures, operating load and application difficulty of individual products.
- The recommended overlap width between membranes and porous materials (concrete, brick, etc.) is a minimum 100 mm.
- Bonding onto porous materials (also non-porous materials resistant to the adhesive solvent) is best achieved using CT113 Adhesive which is applied by brush or roller in an even layer to BOTH bonded surfaces (see Fig. 2).
- After applying the adhesive, allow to flash off (approximately 10–15 min, using finger touch test). This is very important to ensure good adhesion. After flashing off, both bonded surfaces must be connected and the upper membrane layer pressed down firmly using a seam roller.
- To achieve a quicker, easier and economical application, we recommend using OT015 adhesive when bonding to non-porous materials (see Fig. 3). In the case of heavier (wider) strips, the membrane may need to be fixed temporarily until sufficient adhesive loading capacity is achieved.
- CT113 adhesive is also suitable for non-porous materials in case of faster curing or vertical application requirements where immediate adhesion (approximately 60% initial load performance) is necessary. Recommended overlap width between membranes and non-porous materials is approximately 20–30 mm.
- The OT015 adhesive is supplied in 600 ml foil packaging (sausage) for gun application, which reduces the risk of accidental contamination of surrounding surfaces and enables reduced site wastage.
- When using OT015 adhesive to bond to window frame, apply a minimum 10 mm diameter bead to align 15 mm inside the edge of the membrane and after locating against the frame, consolidate using a seam roller taking care that the adhesive does not exude out onto the frame. The compressed adhesive bead should now be approx. 20-30 x 2-3 mm. If it is not possible to apply a consolidated bead of minimum 20 mm, please consult tremco illbruck technical department.
- For ensuring robust air and weather tight seals at the membrane corner joints, illbruck ME241 EPDM Corners should be used (see Fig. 5). If the ME220 is to be bonded using OT015, the ME241 Corners can be applied before or after the membrane. If however, the membrane is supplied with self-adhesive strips, the corners must be applied after the membrane. For full application details, please consult ME241 TDS.

ME220
EPDM Membrane

- For head details, it is recommended to use a safety trim together with min. 100 mm overlap of the membrane to prevent attack of running water (most commonly a window or façade head detail on ventilated cladding structures before a connecting joint is covered).
- Seal the upper edge of the trim at an angle of 45° using OT015 adhesive. (see Fig. 4)
- When using ME220 with self-adhesive strips, fix the membrane to the frame with the acrylic (clear) strip and to the construction substrate with the butyl strip (please note comments above regarding substrate preparation).
- A metal clamping strip may be necessary on some applications to enhance the fixing of the membrane to the window frame when using the acrylic self-adhesive strip or OT015 adhesive.
- Irrespective of bonding method, ensure that the membrane is located in a tension-free state and all adhesive bond lines/areas are consolidated with a seam roller.

Please Note

For final sealing of overlaps and membrane connections, use OT015 adhesive. Connections of membranes to asphalt or PVC hydro-insulation foils must be made with a transition metal sheet.
The above membrane adhesives may not be compatible with these materials, which may inhibit the effectiveness of the required water tightness. Refer to sales office for further advice.
When bonding the membrane to styrene foam or similar, OT008 Paste Adhesive should be used. Application of OT008 is as above guidance for OT015. Compatibility tests should, however, be done prior to use.
This data sheet should be read in conjunction with those for the relevant adhesive(s), (OT015, OT008 or CT113) and ME241 EPDM Corners.

Health & Safety Precautions

Safety data sheet must be read and understood before use.

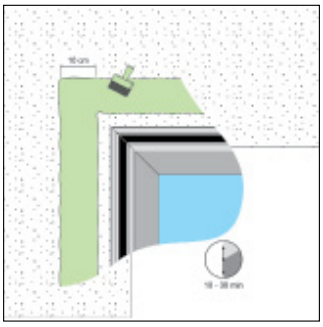


Fig 1: Primer Application

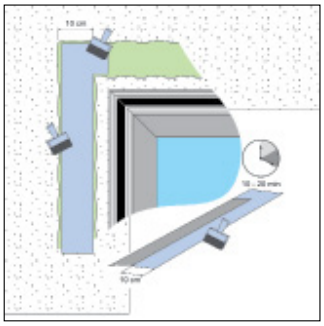


Fig 2: Application of CT113 Contact Adhesive

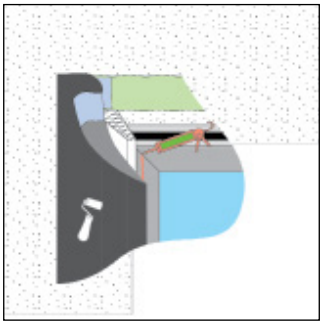


Fig 3: Application of OT015 Paste Adhesive

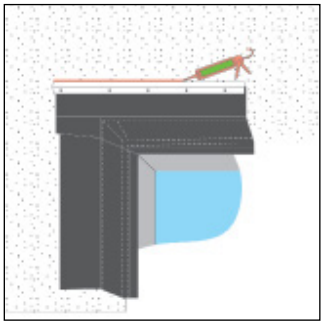


Fig 4: Final Stage - Safety Trim Sealing with OT015 Paste Adhesive

Fig 5: ME241 EPDM Corner applied to projecting window

ME220
EPDM Membrane

Technical Service
tremco CPG UK Ltd 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.

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.
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