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CAW P10		
Uniclass L6631:P91		
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# ME220 Elastomeric EPDM Membrane

For Sealing Interfaces to Provide Airtight or Weather Tight Seals

## KEY BENEFITS SUMMARY

- High resistance to mechanical damage
- Excellent movement capability in both transverse and longitudinal direction
- Excellent weathering, ageing and UV radiation resistance
- Excellent moisture vapour barrier
- Wide ranging installation capabilities in non-standard details
- Excellent material recovery after elongation
- TZUS - Certificate of detail installation compliance with: CSN EN 12207 airtightness CSN EN 12208 water resistance CSN EN 12210 windloading

## PRODUCT INFORMATION

### Description

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

### Usage/Purpose

illbruck ME220 EPDM Membrane is used for weather sealing the exterior side of the connecting joint between a window or façade construction and an adjacent structure (eg. wall, concrete panel, steel frame, etc.) or to provide an internal airtight barrier in a similar detail.

If an internal and external membrane is required, in order to meet the principle of 'inside tighter than outside', illbruck ME220 should be located as the inner membrane and illbruck 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.

### 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.
- As above but with choice of gasket to locate to window/curtain walling frames.
- With acrylic and butyl self-adhesive strips for fixing to frame and construction substrate.\*

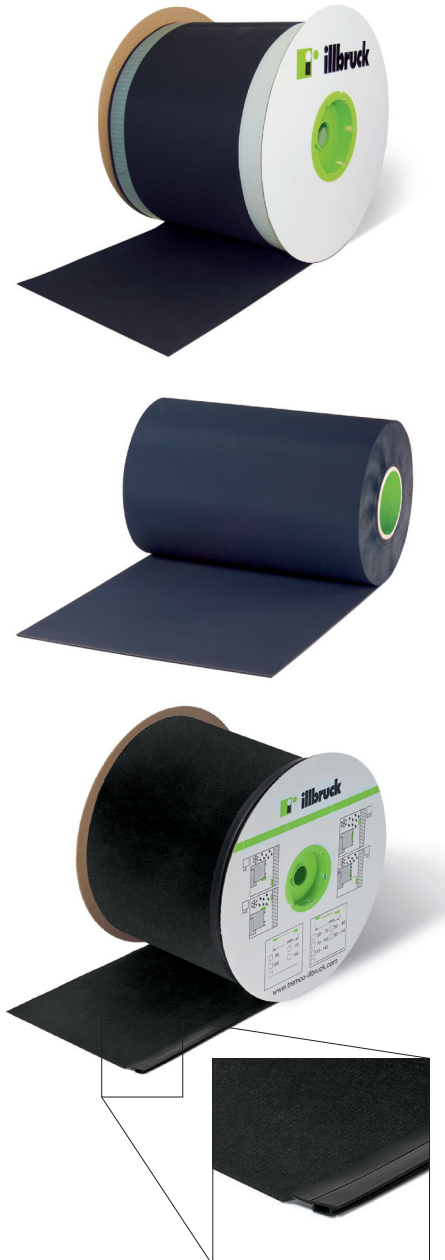
\*Available in 100 - 300 mm widths in 50 mm increments.

### Dimensions

Roll length  
20 m (1st option above) or  
25 m (2nd & 3rd options above)  
Thickness 0.7 - 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%.



# ME220

## Gasket Option

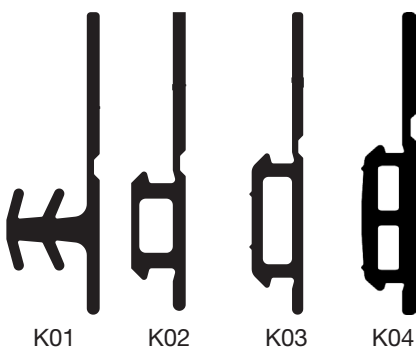
In certain application situations such as low temperature or wet weather, or if a mechanical retention for the membrane is preferred, there are four gasket options which can be used dependent on a suitable groove on the frame profile. The gasketed membrane can be supplied with or without a butyl self-adhesive strip for fixing to the structure (standard format is without adhesive; please allow 3 – 4 weeks delivery if adhesive is required).

## Benefits

- weather and surface-independent attachment to the window
- four gasket options to suit most window/curtain walling profiles
- High security
- RAL-tested

## Gasket Dimensions

Gasket Type	Minimum Groove Depth (mm)	Groove Width (mm)
K01	Approx 6.5	Approx 3 - 5
K02	Approx 4.0	Approx 5 - 7
K03	Approx 4.0	Approx 7 - 10
K04	Approx 4.0	Approx 13 - 15



## Availability

Direct from Tremco illbruck (see back of leaflet for address and telephone details).

## Technical Data

Category	Standard	Result
Tensile Strength	DIN 53504	> 6.5 MPa
Elongation		250%
Module at 300%	DIN 53504	> 5 MPa
UV Resistance	DIN 53504	Excellent
Vapour Resistivity ( $\mu$ value)	DIN 52615	32,000
Moisture Vapour Permeability (sd value)		th. 0.7 mm 22.4 m
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	B 2
Temperature Resistance		- 30°C to + 150°C
Application Temperature		+ 5°C to + 35°C

## USAGE GUIDELINES

### 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.
- For porous substrates, illbruck CT113 Contact Adhesive is recommended and for non-porous substrates, illbruck OT015 Paste Adhesive.
- If using illbruck 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 illbruck ME901 or ME902 Butyl & Bitumen Primer (brush or spray grade respectively).

### Priming with illbruck CT113 Contact Adhesive

- As a primer, use diluted illbruck CT113 Contact Adhesive with Tremco AW421 solvent mixed in ratio 2-3 parts Tremco AW421:1 part illbruck 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<sup>2</sup>.
- 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 designed 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 achieved using illbruck CT113 Contact 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 must be pressed down firmly using a seam roller.
- In the case of heavier (wider) strips, the membrane may need to be fixed temporarily until sufficient adhesive loading capacity is achieved (see Product Data Sheet).
- To achieve a quicker, more accurate and economical application, we recommend using illbruck OT015 Paste Adhesive when bonding to non-porous materials (see Fig. 3).
- The 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.
- illbruck CT113 Contact 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.

- 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 illbruck OT015 Paste Adhesive. (see Fig. 4)
- When selecting a gasketed version of illbruck ME220, choose the appropriate option to fit a suitable groove in the window profile.
- When using illbruck 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).
- Irrespective of bonding method, ensure that the membrane is located in a tension-free state.

## Tips

- For final sealing of overlaps and membrane connections, use illbruck OT015 Paste 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 watertightness. Refer to sales office for further advice.
- When bonding the membrane to styrene foam or similar, illbruck MS020 solvent free paste adhesive should be used.

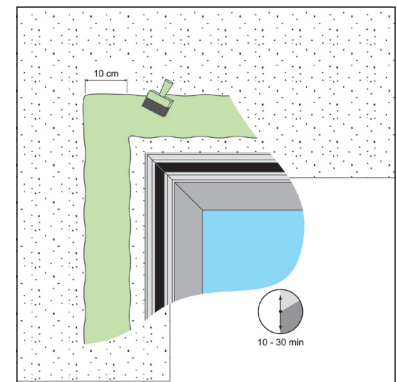


Fig 1: Primer Application

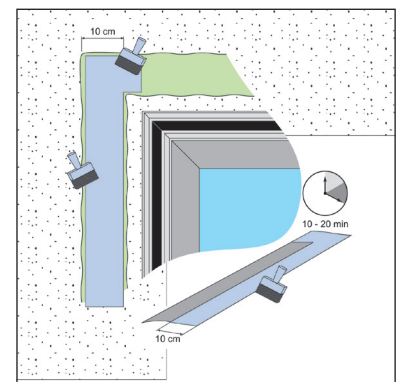


Fig 2: Application of illbruck CT113 Contact Adhesive

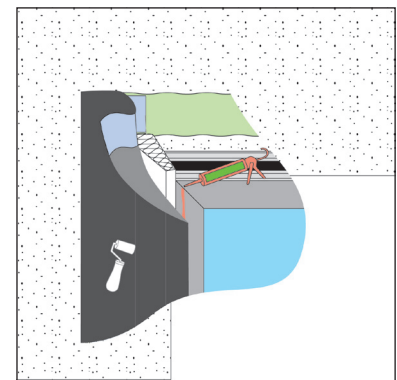


Fig 3: Application of illbruck OT015 Paste Adhesive

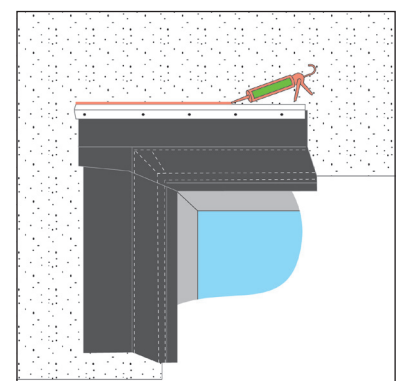


Fig 4: Final Stage - Safety Trim Sealing with illbruck OT015 Paste Adhesive

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## Necessary Installation Tools

Installation requires the use of a tape measure, scissors, sharp knife, brush, seam roller, container for adhesive dilution for priming, mixing tool, solvent (Tremco AW421). In certain cases, adhesive tape for temporary fixing of membranes.

## Storage

Store in dry shaded conditions between +5°C and +25°C.

## Shelf Life

Unlimited when stored as recommended in original unopened packaging.

## Health and Safety Precautions

Product Safety Data Sheets must be read and understood before use.

## Technical Service

Tremco illbruck 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 illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco illbruck written instructions and (b) in any application recommended by Tremco illbruck, 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 illbruck Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.