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.
• 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%.

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
Technical Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>DIN 53504</td>
<td>&gt; 6.5 MPa</td>
</tr>
<tr>
<td>Elongation</td>
<td></td>
<td>250%</td>
</tr>
<tr>
<td>Module at 300%</td>
<td>DIN 53504</td>
<td>&gt; 5 MPa</td>
</tr>
<tr>
<td>UV Resistance</td>
<td>DIN 53504</td>
<td>Excellent</td>
</tr>
<tr>
<td>Water Vapour Resistance Factor</td>
<td>DIN 52615</td>
<td>32,000</td>
</tr>
<tr>
<td>Moisture Vapour Permeability</td>
<td>th. 0.7 mm</td>
<td>22.4 m</td>
</tr>
</tbody>
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| Airtightness                     | EN 12207    | > Class 4               |
| Watertightness                   | EN 12208    | > Class 9A               |
| Resistance to Wind Loading       | EN 12210    | > Class 9               |
| Dynamic Puncture Resistance      | EN 12691    | tight (10 mm punch)     |
| Static Puncture Resistance       | EN 12730    | > 250 N                 |
| Flammability Class               | DIN 4102    | B2                      |
| Temperature Resistance           |             | -30°C to +150°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. |

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

<table>
<thead>
<tr>
<th>Gasket Type</th>
<th>Minimum Groove Depth (mm)</th>
<th>Groove Width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K01</td>
<td>Approx 6.5</td>
<td>Approx 3 - 5</td>
</tr>
<tr>
<td>K02</td>
<td>Approx 4.0</td>
<td>Approx 5 - 7</td>
</tr>
<tr>
<td>K03</td>
<td>Approx 4.0</td>
<td>Approx 7 - 10</td>
</tr>
<tr>
<td>K04</td>
<td>Approx 4.0</td>
<td>Approx 13 - 15</td>
</tr>
</tbody>
</table>

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 (illbruck 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, CT1 13 Contact Adhesive is recommended and for non-porous substrates, OT015 Paste Adhesive; however, depending on actual substrate characteristics, the adhesives can be interchanged, e.g. 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 CT1 13 Contact Adhesive

- Priming may be necessary or beneficial when using CT1 13 and OT015 Adhesives.
- As a primer, use diluted CT1 13 Contact Adhesive with AW421 solvent mixed in ratio 2-3 parts AW421:1 part CT1 13 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 m².
- 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 normally achieved using 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 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.
- To achieve a quicker, easier and economical application, we recommend using 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.
- 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 OT015 Paste Adhesive. (see Fig. 4)
- When selecting a gasketed version of ME220, choose the appropriate option to fit a suitable groove in the window profile.
- 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).
- 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 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 water tightness. Refer to sales office for further advice.

When bonding the membrane to styrene foam or similar, OT008 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) to be used (OT015, OT008 or CT113).

Health & Safety Precautions

Safety data sheet 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.

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