

illbruck FF 220 EPDM Membrane

Exterior, Weathersealing Elastomeric EPDM Membrane

Description

illbruck 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).

Material

illbruck FF 220 is an EPDM-based membrane. The material does not contain any solvents which could later migrate into adjacent surfaces.

Colour

- Black

Product Advantages

- 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

Design

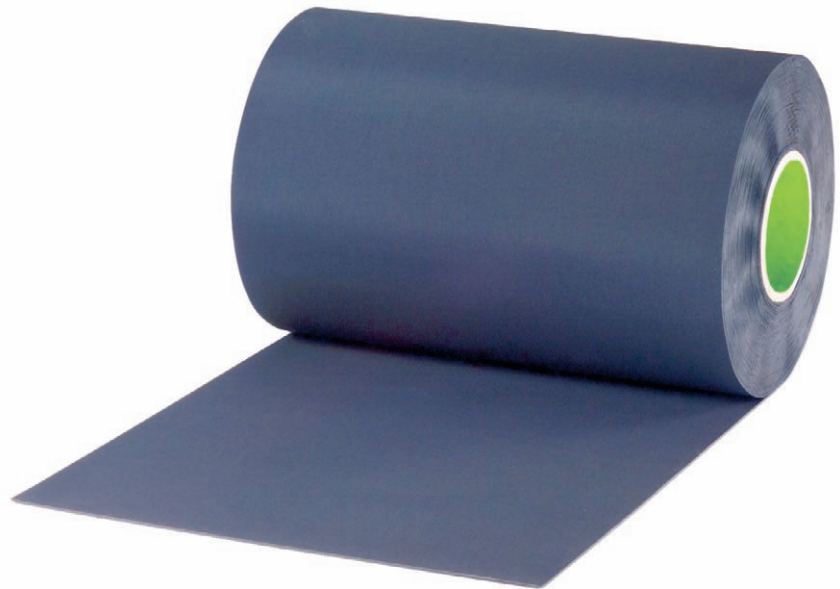
Non-adhesive membrane with embossed finish, wound on rolls.

Dimensions

Roll length 20 m
Thickness 0.7*
Width 50–1500 mm
Cut rolls or full log (1500 mm)

*(1.2 mm also available subject to minimum order quantity)

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



Technical Data

	Classification	
Tensile strength	DIN 53504	≥ 6.5 MPa
Elongation		≥ 250%
Module at 300%	DIN 53504	≥ 5 MPa
UV resistance	DIN 53504	excellent
Vapour Resistivity (μ 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
Storage temperature		+ 5°C to + 25°C
Storage time		unlimited

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APPLICATION INSTRUCTIONS

Substrate 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.

Primer

As a primer, use diluted OT13 Contact Adhesive in mixture ratio 1:2-3 with toluene solvent. Apply the primer onto the porous substrate 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 OT 13 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 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. If airtightness is required, we recommend illbruck Duo Membrane for the internal perimeter seal. 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 OT 13 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 strips, the membrane must 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 OT 15 Paste Adhesive when bonding to non-porous materials (see Fig. 3). The adhesive is supplied in 600 ml packaging (sausage) for gun application, which reduces the risk of accidental contamination of surrounding surfaces.

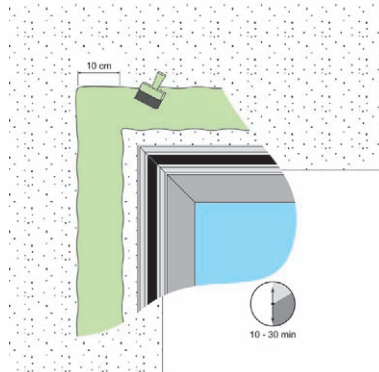


Fig 1: Primer Application

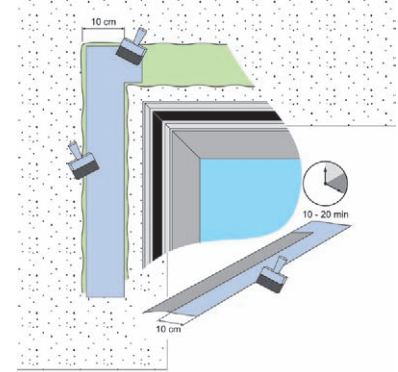


Fig 2: Application of illbruck OT 13 Contact Adhesive

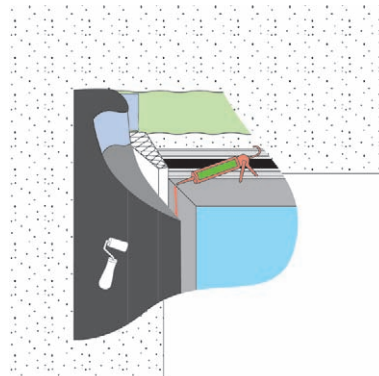


Fig 3: Application of illbruck OT 15 Paste Adhesive

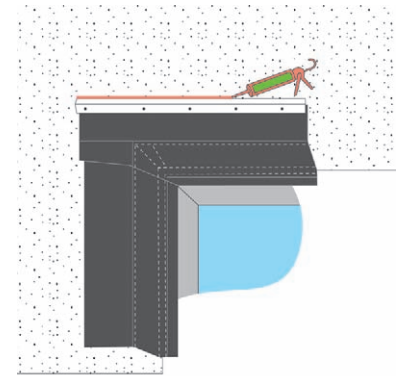


Fig 4: Final Stage - Safety Trim Sealing with illbruck OT 15 Paste Adhesive

illbruck OT 13 Adhesive is also suitable for non-porous materials in case of faster curing or vertical application requirements where immediate adhesion (ca 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 OT 15 Adhesive. (see Fig. 4)

Tips

For final sealing of overlaps and membrane connections, use illbruck OT 15 Adhesive. Connections of membranes to asphalt or PVC hydro-insulation foils must be made with a transition metal sheet. Membrane adhesives may not be compatible with these materials, which may inhibit the effectiveness of the required

watertightness. Refer to sales office for advice.

When bonding the membrane to styrene foam, illbruck OT20 solvent free paste adhesive should be used.

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 (Toluene). In certain cases, adhesive tape for temporary fixing of membranes.

Service

Tremco illbruck can provide site advice, but please initially call our sales office.

Additional Information

The above information is a general instruction only. Due to other factors arising from material differences and various conditions outside our control, we always recommend to test the suitability of materials for specific applications before commencement of the work programme.

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