



Mapeproof ESM

Surface membrane

Two-component, Solvent Free, Damp-Proof Surface, Membrane

DESCRIPTION

A two-component, solvent free, pure epoxy resin, used as a moisture vapour barrier on cement-based substrates containing high residual moisture. It is a low viscosity product with a high penetration capacity in the porosity of the substrate. Because of the absence of solvents, and very low odour it can be used in inhabited environments (e.g. hospitals, schools, offices, etc).

Mixing

The components should not be mixed until the application is ready to start, and should be applied as soon as mixing is completed.

The two components are supplied in pre-measured ratios:

part A: 3 parts by weight;

part B: 1 part by weight.

Mix the two components completely and accurately with a low speed mixer until a uniform mix is obtained.

Application Procedure 1

Power Floated and New Substrates:

- The substrate should be abraded by mechanical means to remove any curing agents or contamination, to assist penetration and adhesion of the membrane.
- The area should then be thoroughly vacuumed to remove all dust and debris.

- Apply the first coat of **Mapeproof ESM** ensuring it is well worked into the substrate and that complete coverage of the area is achieved at a maximum rate of 30 m² per 6 kg unit (depends on the porosity of the sub-floor) and allow to cure (approx 5 hours).
- Apply the second coat of **Mapeproof ESM** at right angles to the first coat, again ensuring complete coverage.
- When the second coat has cured, a coat of **Mapeprim SP** or **Eco Prim T** primer should then be applied within maximum 24 hours (primer drying times vary with ambient conditions i.e. temperature and humidity).
- The levelling compounds should be applied within 24 hours of the primer application.

Application Procedure 2

Sand/Cement and Existing Substrates:

- All existing materials, adhesives, laitance and contamination should be removed prior to preparation work commencing.
- Any cracks in the substrate should be filled with **Eporip**.
- Where the substrate has a textured or profiled finish, **Latexplan** levelling compound should be applied to provide a level surface for the membrane to be applied onto.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	part A	part B
Colour:	transparent yellow	transparent yellow
Density (g/m³):	1.12	1.00
Hazard classification according to EC 1999/45:	irritant, dangerous to the environment	corrosive
	Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packing and Safety Data Sheet	
Brookfield Viscosity (mPa·s):	350 (# 1 - rpm 50)	50 (# 1 - rpm 50)
Dry solid content (%):	100	100
Storage:	24 months	24 months
APPLICATION DATA		
Mix ratio:	part A : part B = 3 : 1	
Consistency of the mix:	liquid	
Colour:	transparent	
Density (g/m³):	1.1	
Brookfield Viscosity (mPa·s):	300 (# 1 - rpm 10)	
Application temperature ranges:	from +10°C to +30°C	
Workability: - at +10°C: - at +23°C: - at +30°C:	120 minutes 90 minutes 60 minutes	
Setting time: - at +10°C: - at +23°C: - at +30°C:	5-6 hours 3-4 hours 2-3 hours	
Final curing at +23°C:	7 days	
FINAL PERFORMANCES		
Resistance to abrasion:	excellent	
Resistance to moisture:	excellent	
Resistance to temperature:	excellent	
Adhesion to concrete (N/mm²):	> 3 (breaking point of substrate)	

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- When the second coat has cured, a coat of **Mapeprim SP** or **Eco Prim T** primer should then be applied within maximum 24 hours. (primer drying times vary with ambient conditions i.e. temperature and humidity).
- The levelling compound should be applied within 24 hours of the primer application.
- If required, the second coat of **Mapeproof ESM** can be blinded with sharp sand (when still fresh), which removes the need for a primer.
- It is essential that pinhole free coatings be achieved.

Cleaning

Mapeproof ESM can be cleaned from tools and clothing with ethyl alcohol while the product is still fresh.

COVERAGE

Approx 5 m² per 1 kg unit and 30 m² per 6 kg unit.

PACKAGING

1 kg (part A = 0.75 kg + part B = 0.25 kg);
6 kg (part A = 4.5 kg + part B = 1.5 kg).

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeproof ESM, part A is irritant for eyes and skin. **Mapeproof ESM** part B is corrosive and can cause serious burns, is harmful in direct contact with skin and when swallowed. Both part A and part B may cause sensitive reactions to those predisposed. Always wear protective cloths, gloves and goggles; in case of contact with eyes, wash thoroughly with water and seek medical advice. **Mapeproof ESM** (part A and B) is dangerous for aquatic organisms: avoid release to the environment.

FOR PROFESSIONALS.

N.B.

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that the end users satisfy themselves that the product and conditions are suitable for the envisaged application.

No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification.

End users should ensure that our latest product data and safety information sheets have been consulted prior to use.

**All relevant references
for the product are available
upon request and from
www.mapei.com**

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