New Guard Coatings Group

A global reputation to protect.

The information herewith is given with the best of New Guard Coatings Group knowledge.

Rights are reserved to change and update the data without notice.

This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

MAPEPROOF ESM

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

DESCRIPTION

Av 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 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 20 m² per 4 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 **Eco Prim T Plus** or **Eco Prim Grip** 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 Trade** levelling compound should be applied to provide a level surface for the membrane to be applied onto.
- 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 20 m² per 4 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 **Eco Prim T Plus** or **Eco Prim Grip** 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.

Underfloor Heating:

The screed must be allowed to cure for a minimum 28 day period.
The underfloor heating must be commissioned prior to the installation commencing; it should be turned on to +5°C and the temperature increased by +5°C per day up to a maximum +27°C, run at this temperature for several days then cooled down and switched off for at least 48 hours. Up to a level of 97% RH, 2 coats of **Mapeproof ESM** should be applied.
The heating must then remain off for a further 48 hours (minimum) after completion of the installation, and when turned back on run at a maximum temperature of +27°C in accordance with BS 8203 and BS 5325.

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 20 m² per 4 kg unit.

PACKAGING

1 kg (part A = 0.75 kg + part B = 0.25 kg);
4 kg (part A = 3 kg + part B = 1 kg).

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeproof ESM component A is irritant for the eyes and skin. Both components A and B may cause sensitisation if they come into contact with the skin of those predisposed. **Mapeproof ESM** component B is corrosive, may cause burns and damage to eyes. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds. During use, wear protective gloves and goggles, goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention. **Mapeproof ESM** components A and B are also hazardous for aquatic life. Do not dispose of these products in the environment. For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	part A	part B
Colour:	transparent yellow	transparent yellow
Density (g/m³):	1.12	1.00
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)

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.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.co.uk

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.co.uk.
ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.