



Mapegum EPX



**Two-component,
chemical resistant,
elastic membrane for
waterproofing and
protecting screeds and
concrete slabs prior the
laying of ceramic tiles**



WHERE TO USE

- To create a flexible waterproof layer with high resistance to chemicals on floors and walls, to avoid damage to the substrate and infiltration on the subsoil.

Some application examples

- Waterproofing floors and walls prior the laying of ceramic tiles in industrial environments, industrial kitchens, breweries, abattoirs, dairies, etc.
- Waterproofing industrial floors, battery stock-rooms and areas where acids and chemicals are present on the surface of the floor.

TECHNICAL CHARACTERISTICS

Mapegum EPX is an epoxy resin made up of two pre-dosed components (component A = resin and component B = catalyst) which are mixed together at the moment they are to be used.

Mapegum EPX has a low viscosity level, which makes it easy to apply on the surface to be treated with either a roller, a brush or a trowel.

A thixotropic version, Mapegum EPX-T, is also available for applications on vertical surfaces. This product has the same chemical and physical characteristics as Mapegum EPX and is applied using a trowel.

Mapegum EPX polymerises without shrinking. Once the product has completely set, it is resistant to chemicals (see table overleaf), it is waterproof and has excellent dielectric properties and extremely high

mechanical characteristics. It also adheres extremely well to all substrates normally used in construction (concrete, metal surfaces, aluminium and ceramic).

If the hardened surface of Mapegum EPX is treated appropriately, ceramic materials may be laid using cementitious or epoxy adhesive.

RECOMMENDATIONS

- Do not use Mapegum EPX if the temperature is lower than +10°C or higher than +30°C.
- Do not apply Mapegum EPX on wet surfaces (residual humidity of up to 3% is acceptable).
- To guarantee good protection, apply two layers of Mapegum EPX.
- Only use cementitious adhesives if sand has been sprinkled on the surface of Mapegum EPX.
- Do not dilute Mapegum EPX with water or solvents.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be perfectly clean and sound. Loose or flaky parts, dust, cement laitance, traces of oil, form-release compounds, varnish or paintwork must be removed thoroughly by sandblasting or by other mechanical means.

If the product is applied on metal surfaces, remove all traces of rust, grease, dirt etc.

TECHNICAL DATA (typical values)		
Certified by:		- Säurefließner-Vereinigung e.V. Burgwedel (Germany) according to the regulations of the German National Construction Institute
PRODUCT DETAILS		
	component A	component B
Consistency:	thick paste	liquid
Colour:	grey	transparent
Density (g/cm³):	1.45	0.96
Dry solids content (%):	97	100
Brookfield viscosity at +23°C - 50% R.H. (mPa·s):		
- Mapegum EPX:	30,000 (N° 6 needle - 0 RPM)	200 (N° 2 needle - 50 RPM)
- Mapegum EPX-T:	350,000 (N° 7 needle - 5 RPM)	200 (N° 2 needle - 50 RPM)
Storage:	24 months in original packaging in a dry place. Store component B at a temperature of at least +10°C to avoid crystallisation of the product; reversible by heating up	
Hazard classification according to EC 1999/45:	irritant	corrosive, dangerous to the environment. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packing and Safety Data Sheet
Customs class:	3709 30 00	
APPLICATION DATA at +23°C - 50% R.H.		
Mixing ratio:	component A : component B = 87 : 13	
Brookfield viscosity (mPa·s):		
- Mapegum EPX (N° 6 needle - 50 RPM):	15,000	
- Mapegum EPX-T (N° 7 needle - 5 RPM):	300,000	
Density of mix (kg/m³):	1,400	
Pot life of mix:	30-40 minutes	
Recommended application temperature range:	from +10°C to +30°C	
Start setting time:	8 hours	
Final setting time:	9 hours	
Set to light foot traffic:	after 24 hours	
Ready for use:	after 3 days	
FINAL PERFORMANCES		
Waterproof:	yes	
Resistance to humidity:	excellent	
Resistance to ageing:	excellent	
Temperature when in use:	from -30°C to +80°C	
Flexibility:	yes	
Crack-bridging:	1.5 (according to ZDB)	
Tensile breakage load (N/mm²) (according to DIN 53504-S3a):	4	

Sandblasting is particularly suitable for this operation and we recommend cleaning down until a bare metal surface is obtained.

Preparation of the mix

Mapegum EPX is supplied in two pre-dosed packages which must be mixed together. Pour component B (1.3 kg) into component A (8.7 kg) and mix with a low-speed mixer (to avoid air entrapment), until a completely homogeneous mix is obtained.

Never use partial quantities of the components to avoid dosage errors. This could lead to poor or incomplete solidification of **Mapegum EPX**.

Application of the mix

Pour **Mapegum EPX** on the substrate and spread it out evenly with the help of a serrated trowel until a thickness of 1 mm is reached, within approximately 30-40 minutes of mixing. Spread on a second layer as soon as the first one is sufficiently set to take light foot traffic, after 12-24 hours according to the surrounding temperature. Do not exceed the recommended waiting times, otherwise the two layers may not bond together correctly.

For applications on vertical surfaces, use **Mapegum EPX-T**.

If ceramic is to be laid using **Kerapoxy** adhesive, spread the product on the surface when the second layer of **Mapegum EPX** is sufficiently set to take light foot traffic, after 12-24 hours according to the surrounding temperature. As above, do not wait longer than the recommended period of time indicated.

If a cementitious adhesive is to be used (**Granirapid** or **Adesilex P4**), sprinkle sand on the second layer of **Mapegum EPX** whilst still fresh. Use either **1.2 Quartz** or clean, dry 0.4-0.7 sand (approximately 1.5 kg/m²). When the **Mapegum EPX** has set, remove the excess sand which is not bonded to the surface.

Cleaning

Tools and equipment used for preparing and laying **Mapegum EPX** must be cleaned immediately after use with solvent (ethanol, xylol, toluene, white spirits, etc.).

CONSUMPTION

1.4 kg/m² of **Mapegum EPX** per mm of thickness.

PACKAGING

Mapegum EPX and **Mapegum EPX-T** are supplied in kits of two pre-dosed packages: component A: 8.7 kg; component B: 1.3 kg.

STORAGE

Mapegum EPX may be stored for up to 24 months in its original packaging in a dry place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Component A of **Mapegum EPX** irritates if it comes into contact with the eyes or skin. Component B is corrosive and harmful if it comes into contact with the skin or if swallowed. Both components A and component B may provoke a sensitising reaction in those who are allergic to such substances.

Always use protective clothes, gloves and goggles when handling and using the products. If they come into contact with the skin or eyes, wash well with plenty of clean water and seek medical attention. If the product is swallowed, seek medical attention.

Mapegum EPX (components A and B) is dangerous to aquatic organisms - avoid release to the environment.

RESISTANCE TO CHEMICALS

20% hydrochloric acid	good
20% sulphuric acid	good
5% acetic acid	good
10% lactic acid	good
20% potassium hydroxide	good
20% caustic soda	good
10% ammonium	good
5% hydrogen peroxide	good
Sodium hypochlorite solution (6.4 g/l active chlorine)	good
Calcium chloride (saturated solution)	good
Iron chloride (saturated solution)	good
Sodium chloride (saturated solution)	good
Diesel fuel	good
Petrol	good

PRODUCT FOR PROFESSIONAL USE.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

**All relevant references
of the product are available
upon request**

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