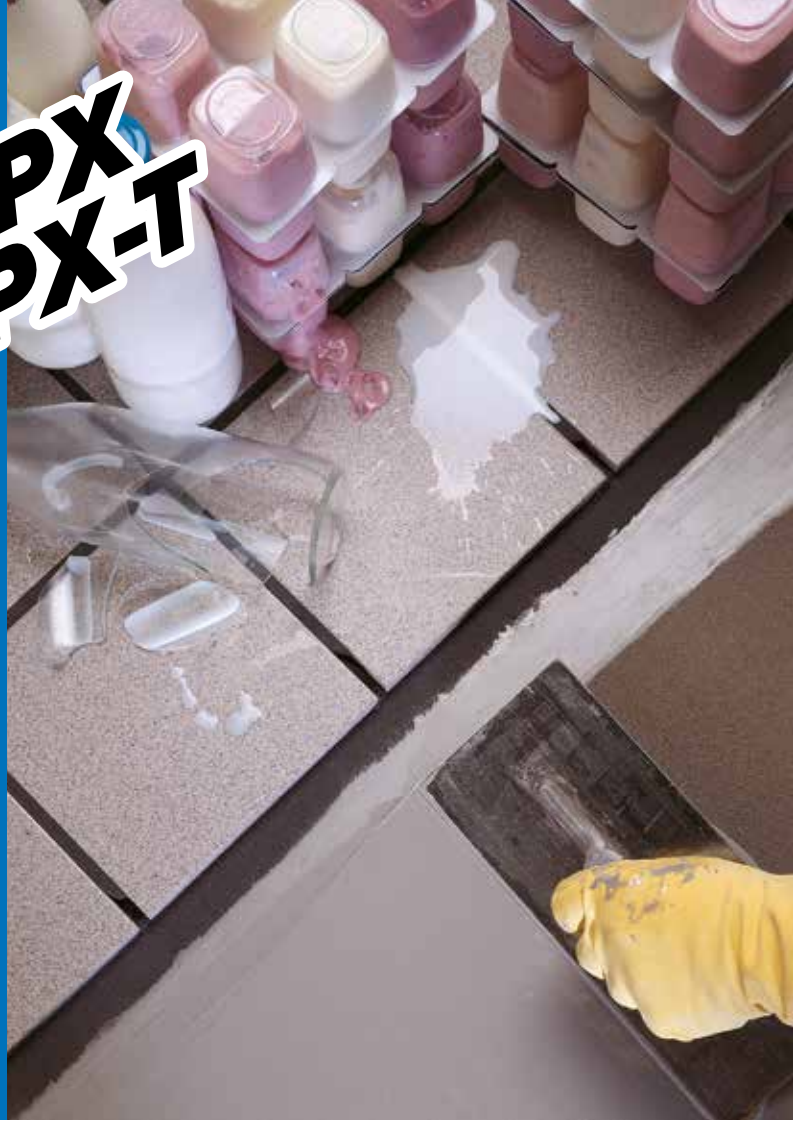
MAPEI

Mapegum EPX
Mapegum EPX-T

MAPEI GmbH
Werk Weferlingen

Verbundabdichtung
P-66130401.001
P-66130402.001

Säurefliesner-Vereinigung e.V.
Burgwedel



Two-component epoxy-polyurethane resins to form flexible waterproof and chemical resistant layers before bonding ceramic

WHERE TO USE

- Flexible waterproof layers on floors and walls in the food industry, communal kitchens, breweries, abattoirs, dairies, technical rooms, etc. exposed to chemicals before bonding ceramic.

TECHNICAL CHARACTERISTICS

Mapegum EPX is an epoxy-polyurethane resin made up of two pre-dosed parts (component A = resin and component B = catalyser) that are mixed together prior to use.

Mapegum EPX has a low level of viscosity which makes it easy to apply with a brush or smooth resin-spreader on substrates that require protection. There is also a thixotropic version available for use on vertical surfaces called **Mapegum EPX-T**. This product has the same chemical and physical characteristics as **Mapegum EPX** but may only be applied with a spreader.

Mapegum EPX hardens without shrinking and, once set, is resistant to chemicals (see table below), waterproof, has excellent dielectric and mechanical properties and forms a strong bond on all types of substrate normally used in the building industry (cementitious substrates, metal and ceramic).

Once **Mapegum EPX** and **Mapegum EPX-T** have set, floor and wall coverings may be bonded to them using cementitious adhesive (such as **Granirapid** or **Elastorapid** after sanding **Mapegum EPX** while still wet) or epoxy adhesive (such as **Kerapoxy** or **Kerapoxy Adhesive**). The floor or wall covering must then be grouted with an epoxy product such as **Kerapoxy, Kerapoxy CQ** or **Kerapoxy Design.**

RECOMMENDATIONS

- Do not apply **Mapegum EPX** or **Mapegum EPX-T** if the temperature is lower than +10°C or higher than +30°C.
- Do not apply **Mapegum EPX** or **Mapegum EPX-T** on cementitious substrates with moisture content higher than 3% or with rising damp.
- Do not apply **Mapegum EPX** or **Mapegum EPX-T** on crumbling or weak cementitious substrates.
- Broadcast **Mapegum EPX** and **Mapegum EPX-T** with quartz sand before applying cementitious adhesive.
- Do not dilute **Mapegum EPX** and **Mapegum EPX-T** with water or solvent.

APPLICATION PROCEDURE

Substrate preparation

Substrates must be well-cured, solid, clean, dry and free of oil, grease, cement laitance, old paint and any other material or substance that could affect adhesion. Surface dust must also be removed.

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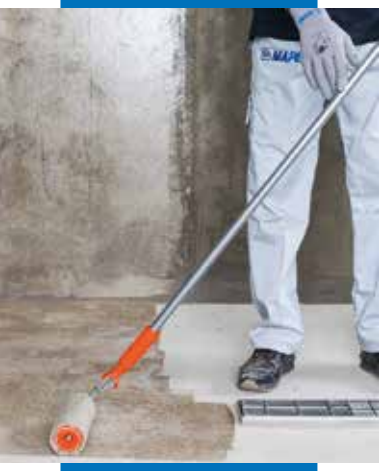
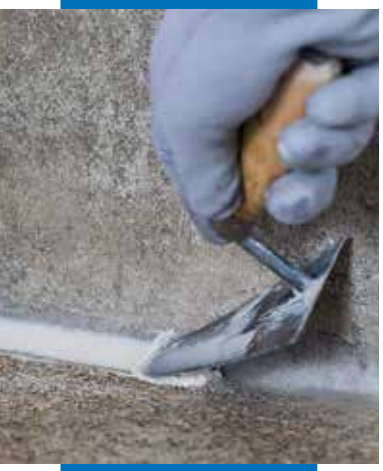


Application of Primer SN on the substrate



Forming fillet joints

Cementitious substrates must be stable and dry with no rising damp. Smoothing and levelling layers may be applied using **Planitop Fast 330** or **Adesilex P4**.

When applying the product on metal, remove all traces of rust, grease, dirt etc. by sandblasting to a bare metal finish. Before applying **Mapegum EPX** treat all surfaces with a coat of **Primer SN**, two-component fillerized epoxy primer or **Primer MF**, two-component epoxy primer. Pay particular attention to expansion joints and fillet joints between horizontal and vertical surfaces.
Structural joints must be waterproofed with **Mapeband TPE** bonded to the substrate with **Adesilex PG4**.

Preparation of the mix
Mapegum EPX and **Mapegum EPX-T** are supplied in kits of two pre-dosed components that must be mixed together. Pour component B (1.3 kg) into the container of component A (8.7 kg) and blend with a mixer at low-speed to prevent entraining air into the mix until they are completely blended.
Do not use partial quantities of the components to avoid dosage errors; this could lead to poor or incomplete hardening of **Mapegum EPX** or **Mapegum EPX-T**.

Application of the product
The covering times of the primer must be strictly adhered to. Apply two even layers of **Mapegum EPX** around 1 mm thick on the substrate with a smooth resin-spreader. Remove any air bubbles in the product while still wet using a bubble-breaker.
Wait until the first layer is dry before applying the second layer (12-24 hours at +23°C and 50% relative humidity). We advise against waiting more than 24 hours between the two layers; adhesion could be affected.

For vertical surfaces we recommend using **Mapegum EPX-T**, a thixotropic version with the same chemical and physical characteristics as **Mapegum EPX**.

Applying the floor or wall covering
Bond the floor or wall covering in place when the second layer of **Mapegum EPX** or **Mapegum EPX-T** is completely dry (12-24 hours at +23°C and 50% relative humidity); we advise against waiting more than 24 hours in this case too.
If epoxy adhesive is used apply with a special **Kerapoxy Adhesive** spreader.
If cementitious adhesive is used (**Granirapid** or **Elastorapid)** the second layer of **Mapegum EPX** must be broadcast with **Quartz 1.2** or clean, dry 0.4-0.7 mm sand while still wet (approx. 1.5 kg/m^2). Once **Mapegum EPX** has set, remove any loose sand and apply the cementitious adhesive. When the tiles have been bonded in place grout the joints with epoxy grout such as **Kerapoxy, Kerapoxy CQ** or **Kerapoxy Design** and seal the expansion joints with **Mapeflex PU 45**, **Mapeflex PB25** or **Mapeflex PB27** sealant.

Cleaning
Tools used to prepare and spread **Mapegum EPX** and **Mapegum EPX-T** must be cleaned immediately after use with solvent (ethanol, xylene, toluene, white spirit, etc.).

CONSUMPTION
1.4-1.5 kg/m^2 of **Mapegum EPX** or **Mapegum EPX-T** per mm of thickness.

PACKAGING
Mapegum EPX and **Mapegum EPX-T** are supplied in kits of two pre-dosed components:
– component A: 8.7 kg;
– component B: 1.3 kg.
Packaging ADR approved.

STORAGE
Mapegum EPX and **Mapegum EPX-T** may be stored for 24 months in their original packaging in a dry place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION
Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

WARNING
Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

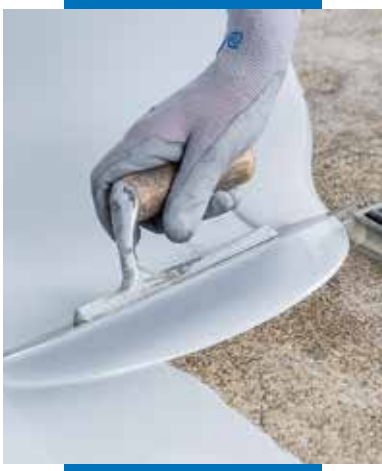
Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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

TECHNICAL DATA (typical values)

PRODUCT IDENTITY		
	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:**	18,000 (spindle 7 - 50 rpm)	50 (spindle 1 - 50 rpm)
– Mapegum EPX-T:	1,200,000 (spindle 7 - 2.5 rpm)	50 (spindle 1 - 50 rpm)
APPLICATION DATA at +23°C - 50% R.H.		
Mixing ratio:	component A : component B = 87 : 13	
Brookfield viscosity (mPa·s): **– Mapegum EPX (spindle 6 - 50 rpm):** **– Mapegum EPX-T (spindle 7 - 5 rpm):**	 15,000 300,000	
Density of mix (kg/m³):	1,400	
Pot life of mix:	30-40 minutes	
Recommended application temperature range:	from +10°C to +30°C	
Initial setting time:	8 hours	
Final setting time:	9 hours	
Set to light foot traffic:	24 hours	
Ready for use:	after 3 days	
FINAL PERFORMANCES		
Waterproof:	yes	
Temperature when in use:	-30°C to +80°C	
Flexibility:	yes	
Crack-bridging (according to ZDB) (mm):	1.5	
Tensile breakage load (N/mm²) **(according to DIN 53504-S3a):**	4	

RESISTANCE TO CHEMICALS	
HYDROCHLORIC ACID (20%)	+
SULPHURIC ACID (20%)	+
ACETIC ACID (5%)	+
LACTIC ACID (10%)	+
POTASSIUM HYDROXIDE (20%)	+
CAUSTIC SODA (20%)	+
AMMONIA (10%)	+
HYDROGEN PEROXIDE (5%)	+
SODIUM HYPOCHLORITE SOLUTION (active chloride 6.4 g/l)	+
CALCIUM CHLORIDE (SATURATED SOLUTION)	+
IRON CHLORIDE (SATURATED SOLUTION)	+
SODIUM CHLORIDE (SATURATED SOLUTION)	+
DIESEL FUEL	+
PETROL	+
	+ = Good



Application of Mapegum EPX

Applying the floor or wall covering with Kerapoxy Design

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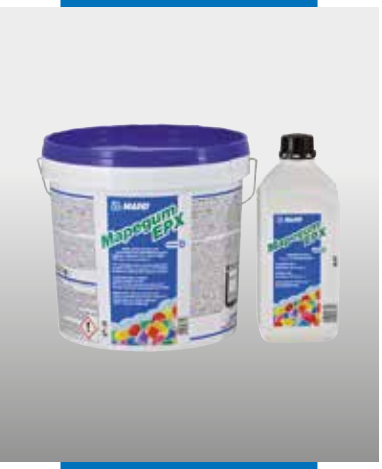

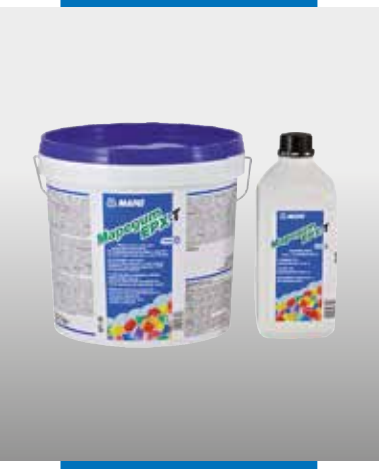

or replace requirements per the TDS in force at the time of the MAPEI product installation.
The most up-to-date TDS can be downloaded from our website www.mapei.com.
ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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

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