



Mapegum WPS



Quick-drying flexible liquid membrane for waterproofing internal surfaces



WHERE TO USE

Waterproofing indoor floor and wall surfaces that are not subject to rising damp nor in permanent water immersion.

Flexible, anti-fracture membrane. Apply before the installation of ceramic tiles or stone material.

Mapegum WPS may be used on the following:

- plasterboard, gypsum or cementitious render, lightweight cement block and marine-plywood;
- cementitious, anhydrite, wooden and magnesite substrates and existing ceramic and natural stone after the application of **Eco Prim T** primer.

ADVANTAGES

- Product certified EC1 Plus by the GEV Institute (Gemeinschaft Emissions-kontrollierte Verlegewerkstoffe e.V) as a product with very low emission of volatile organic compounds.
- Ready to use.
- Rapid application.
- Floor coverings may be installed after 12 hours.
- Excellent elongation properties.
- No reinforcement required.

Some application examples

- Waterproofing walls and floors in bathrooms and shower cubicles before laying ceramic tiles, natural stone and mosaic.

- Waterproofing kitchen walls and floors, and work tops before laying ceramic tiles and natural stone.

TECHNICAL CHARACTERISTICS

Mapegum WPS is a ready-to-use, solvent-free, one-component, grey-coloured paste with a base of synthetic resins in water dispersion.

Mapegum WPS has a thixotropic consistency which makes it easy to apply on horizontal, sloping and vertical surfaces.

After rapid evaporation of the water content, **Mapegum WPS** forms a flexible membrane which is not sticky and which is strong enough to withstand light pedestrian traffic. It also forms an excellent surface which bonds perfectly to adhesives used for laying ceramics, marble and natural stone.

The flexibility of **Mapegum WPS** enables it to withstand normal expansion and contraction movements of the substrate due to temperature variations and vibrations. Due to the flexibility of **Mapegum WPS**, it acts as an anti-fracture membrane for substrates which are subject to light cracking (< 1 mm).

Mapegum WPS is resistant to water, limewater (pH > 12), water which contains chlorides and normal household detergents and cleaning products.

Systems based on the use of **Mapegum WPS** flexible membrane, on which various types of tiles have been laid using MAPEI cementitious-based adhesives (such as **Granirapid**, **Keraflex** and **Adesilex P9**) and water dispersion adhesives (**Ultramastic III**), have been certified for use in damp environments by the following institutes:

- Säurefliesner (Germany);

Mapegum WPS



Application of a 90° Mapeband PE 120 corner piece using Mapegum WPS



Application of Mapeband PE 120 using Mapegum WPS



Application of Mapeband PE 120 using Mapegum WPS

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	paste
Colour:	light grey
Density (g/cm ³):	1.45
pH:	9.0
Dry solids content (%):	73
Brookfield viscosity (mPa·s):	120,000 (rotor E - 5 revs)
EMICODE:	EC1 Plus - very low emission
APPLICATION DATA (at +23°C - 50% R.H.)	
Minimum film-forming temperature:	+5°C
Recommended application temperature range:	from +5°C to +35°C
Waiting time between the first and second coat:	approx. 60 min (touch dry)
Waiting time before laying coating material:	12-24 hours
Completely dry (2 mm of thickness) at +23°C:	5 hours
Completely dry (2 mm of thickness) at +5°C:	12 hours
FINAL PERFORMANCES	
Elongation at failure according to DIN 53504 (%):	200
Initial adhesion according to EN 14891-A.6.2 (N/mm ²):	1.6
Adhesion after water immersion according to EN 14891-A.6.3 (N/mm ²):	1.2
Adhesion after heat ageing according to EN 14891-A.6.5 (N/mm ²):	1.6
Adhesion after freeze/thaw cycles according to EN 14891-A.6.6 (N/mm ²):	1.0
Adhesion after immersion in basic water (saturated solution of lime) according to EN 14891-A.6.9 (N/mm ²):	1.2
Adhesion after immersion in sodium hypochlorite solution in compliance with EN 14891-A.6.7 (N/mm ²):	0.6
Crack bridging ability at +23°C according to EN 14891 A.8.2 (mm):	2.1
Impermeable to water under pressure according to EN 14891-A.7 (150 kPa) 7 days:	no penetration
Permeable to water vapour according to EN ISO 12572:	S _d ≥ 5 m (per 1 mm thickness of dry film)



- Sp Swedish National Testing & Research Institute (Sweden);
- Norwegian Research and Building Institute (Norway);

RECOMMENDATIONS

- Do not apply **Mapegum WPS** if the temperature is lower than +5°C.
- Create sloping surfaces where necessary to avoid the formation of puddles of water.
- Do not apply **Mapegum WPS** on damp cementitious substrates or on substrates which are subject to rising damp.
- Do not use **Mapegum WPS** on surfaces continuously immersed in liquid such as swimming pools, fountains, storage tanks, etc. Use **Mapelastic** or **Mapelastic Smart** for these types of application.
- Do not use **Mapegum WPS** to cover cracks.
- **Mapegum WPS** must be protected from abrasion caused by pedestrian traffic by installing ceramic tiles or stone material.

APPLICATION PROCEDURE

Preparation of the substrate

Substrates must be solid, clean, dry and free of oil, grease, old paintwork or any other material which could compromise bonding. When it is applied on existing ceramic coatings, accurately check if the substrate is sound, and clean all the mould, loose material, etc. from the surfaces to be waterproofed by washing and brushing them down, or by spraying with water and steam. Cementitious substrates must be stable and dry, and not subject to rising damp. Substrates which are highly absorbent or gypsum must be pre-treated with **Primer G** (usually diluted with water at a ratio of 1:1 or 1:2 to ensure thorough penetration). Wait several hours until the coating of **Primer G** is completely dry.

Anhydrite or gypsum substrates must be perfectly dry (maximum residual humidity 0.5%), sanded and treated with a coat of

Primer G or **Primer S**. Existing substrates of ceramic tiles or natural stone must be treated with **Eco Prim T** primer before applying **Mapegum WPS**.

If a slope has to be created and the base needs to be smoothed off before spreading on **Mapegum WPS**, use **Adesilex P4** or **Planitop Fast 330**.

Application of the product

In order to guarantee continuity in the waterproofing coat, we recommend placing **Mapeband**, alkali-resistant rubber tape with felt, between the wall and the floor and between contiguous walls before applying **Mapegum WPS**, or **Mapeband PE 120**, PVC tape.

Special **Mapeband** or **Mapeband PE 120** pieces are available to be inserted into all corners, drains and pipe-work. For drains, an alternative solution is to use the special shaped pieces from the **Drain** range.

Mapeband or **Mapeband PE 120** must be bonded to the substrate using **Mapegum WPS**.

Mapegum WPS may be applied by trowel, with a roller, by brush or spray (if required, dilute with up to 5% of water).

The product must be applied evenly in thin coats (approx. 1 mm maximum per coat). Wait until the first coat is dry before applying further coats crossways (1-2 hours according to temperature conditions).

The final thickness of **Mapegum WPS** must never be less than 1 mm, in order to form a consistent, flexible continuous coat. Make sure that there are no gaps caused by imperfections in the substrate.

Mapegum WPS is used as an anti-fracture membrane on cracked substrates, we recommend embedding **Mapenet 150** alkali-resistant fibreglass reinforcing mesh in the first layer of the product while it is still fresh. To further improve both elongation at failure and crack-bridging of **Mapegum WPS**, we recommend inserting **Mapetex 50** non-woven polypropylene fabric.

After 12-24 hours from applying the final coat of **Mapegum WPS** (according to temperature conditions), the surface is ready for laying ceramic tiles or natural stone, etc. Use an adhesive from the MAPEI range to lay ceramic tiles and natural stone; class C2 if it is cementitious based or class D2TE if it is a water dispersion type, in accordance with standard EN 12004.

Laying the tiles

After applying **Mapegum WPS** wait:

- 12-24 hours on absorbent substrates;
- 4-5 days on substrates which are not absorbent.

Lay the tiles using an adhesive from the MAPEI range (such as **Keraquick S1**, **Granirapid**, **Adesilex P9**, **Keraflex S1** or **Ultramastic III**); the width of the joints depends on the size of the tiles to be laid. Grout the tile joints using **Ultracolor Plus**, **Keracolor FF** or **Keracolor GG** plus **Fugolastic**, or with **Kerapoxy** or **Kerapoxy CQ**, available in a variety of colours. Expansion joints must be sealed using the special MAPEI sealants.



Application of a **Mapeband PE 120** seal for through holes using **Mapegum WPS**



Application of a **Drain Vertical fitting** using **Mapegum WPS**



Application of **Mapegum WPS** with a roller

Mapegum WPS



Cleaning

Mapegum WPS may be easily removed while still fresh from tools and surfaces with water.

CONSUMPTION

The consumption of Mapegum WPS is approximately 1.5 kg/m² per mm of thickness.

PACKAGING

Mapegum WPS is available in 5, 10 and 25 kg drums.

STORAGE

Up to 24 months in original packaging. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapegum WPS is not considered dangerous according to current norms regarding the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemicals.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

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 or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

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



Installing wall covering using Keraflex Maxi S1



Installing floor covering using Ultramastic III



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