MAPEGUM WPS

Quick-drying flexible liquid membrane for waterproofing internal surfaces





BENEFITS AND FEATURES

- Product certified EC1 Plus by 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.

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 Plus** primer.

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.

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);
- 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 affect 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-based 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 Plus** 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 **Planitop Fast 330**.

Application of the product

In order to guarantee continuity in the waterproofing coat, we recommend placing a rubber tape such as **Mapeband**, **Mapeband PE 120** or **Mapeband Easy** to form elastic joints between the wall and the floor and between contiguous walls before applying **Mapegum WPS**.

For drains, use the special-shaped pieces from the **Drain** range.

Mapeband, **Mapeband PE 120** or **Mapeband Easy** 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. 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 0.8 mm (equivalent to a dry thickness of 0.5 mm), in order to form a consistent, flexible continuous coat. Make sure that there are no gaps caused by imperfections in the substrate.

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 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



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



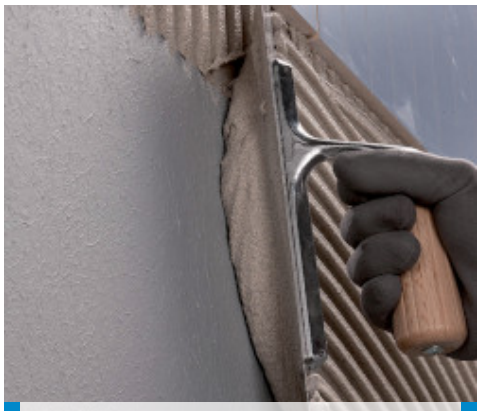
Application of a Drain Vertical fitting using Mapegum WPS



Application of Mapegum WPS with a roller



Installing wall covering using Keraflex Maxi S1



Installing floor covering using Ultramastic III

CLEANING

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

CONSUMPTION

The consumption of **Mapegum WPS** is approximately 1.2 kg/m² in two coats, equal to 0.8 mm wet thickness (equivalent to 0.5 mm dry thickness).

NB: *the consumption figures indicated are for a seamless film applied on a flat surface and will be higher on uneven surfaces..*

PACKAGING

Mapegum WPS is available in 20, 10 and 5 kg drums.

STORAGE

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

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.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency:	paste
Colour:	light grey
Density (g/cm³):	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 (1 mm of thickness) at +23°C:	5 hours
FINAL PERFORMANCE (final dry thickness of 0.5 mm)	
Initial adhesion according to EN 14891-A.6.2 (N/mm²):	1.6
Adhesion after water immersion according to EN 14891-A.6.3 (N/mm²):	1.2
Adhesion after heat ageing according to EN 14891-A.6.5 (N/mm²):	1.6
Adhesion after freeze/thaw cycles according to EN 14891-A.6.6 (N/mm²):	1.0
Adhesion after immersion in basic water (saturated solution of lime) according to EN 14891-A.6.9 (N/mm²):	1.2
Adhesion after immersion in sodium hypochlorite solution in compliance with EN 14891-A.6.7 (N/mm²):	0.6
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:	$S_d \geq 5$ m (per 1 mm thickness of dry film)

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 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.

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