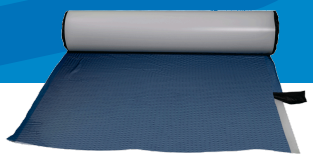
MAPEPROOF AL 1200 AP

HDPE self-adhesive membrane to waterproof underground structures after pouring concrete





CE EN 13967

BENEFITS AND FEATURES

- Made from HDPE membrane coated with a layer of tough adhesive that forms a monolithic bond with concrete substrates and holds it permanently in place over the years.
- Fully-bonded waterproofing system applied to poured concrete and stops any water lateral migration between the foundations and the membrane.
- Joints become completely watertight.
- Good crack-bridging properties once applied.
- **Mapeproof AL 1200 AP** is cold-applied and does not require heat and/or naked flames.
- Bitumen-free.

WHERE TO USE

Waterproofing surfaces of underground structures after pouring concrete, e.g.:

- carparks and garages;
- underground structures in general;
- swimming pools, tanks and basins;
- underpasses.

TECHNICAL CHARACTERISTICS

Mapeproof AL 1200 AP is a self-adhesive waterproofing membrane made from HDPE coated with a layer of tough, synthetic adhesive that forms a monolithic bond with concrete substrates.

Mapeproof AL 1200 AP is resistant to aggressive natural agents and substances normally found in groundwater and in the ground.

Mapeproof AL 1200 AP forms a highly effective barrier against groundwater, moisture in the ground, radon and methane.

Mapeproof AL 1200 AP meets the requirements of EN 13967 ("*Flexible sheets for waterproofing – Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet*").

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APPLICATION PROCEDURE

Preparation of the substrate

Concrete substrates must be sound, flat and clean. Remove cement laitance, loose and crumbling parts and traces of dust, grease and form release agents with a pressure washer and wait until all the water has dried off.

If the reinforced concrete to be waterproofed has gravel clusters or other irregularities, remove them with hand or power tools or by hydroblasting. Carefully clean any exposed pieces of rebar, treat them with a coat of **Mapefer 1K** anti-corrosion cementitious mortar and reintegrate gaps and demolished areas with **Planitop Smooth & Repair R4** quick-setting, compensated-shrinkage, thixotropic cementitious structural mortar or with a suitable product from the **Mapegrout** range of mortars.

Then blend in all the corners between the foundations and walls and between adjacent vertical walls with the same products used repair the surfaces and round off any sharp edges or corners.

Seal structural joints with **Mapeband TPE** tape bonded to the substrate with **Adesilex PG4** epoxy adhesive broadcast with **Quartz 0.5**.

After preparing the substrate, apply a coat of **Mapeproof SA Primer** one-component, quick-drying primer. The consumption rate of the primer varies according to absorption and roughness of the substrate and is generally around 200 g/m^2.

Application of the product

Apply **Mapeproof AL 1200 AP** on the vertical surfaces: it is recommended cutting the **Mapeproof AL 1200 AP** according to the height of the surface to be waterproofed.

Remove around 30 cm of the protective film, line up the sheet according to the direction it is to be applied and apply it to the substrate starting from the highest point. Then apply **Mapeproof AL 1200 AP**, making sure there is an overlap at least 7 cm wide between adjacent sheets. Once the membrane has been applied, it is important to go over all the overlaps with a rubber roller.

To prevent damaging the upper edge of the membrane, it is suggested to fix the upper part of the membrane with a wooden or metallic profile and seal it with the two-component poyurethane liquid membrane **Mapeproof Liquid Membrane**. In case of elements passing through the concrete it is necessary to crop the membrane and seal the section with **Mapeproof Liquid Membrane**.

Carry out localised repairs to areas that have been accidentally damaged with pieces of **Mapeproof AL 1200 AP** cut from the roll of membrane and tape the piece using **Mapeproof AL Tape D10 AP**.

Protecting the waterproofing layer

Protect all the waterproofed surfaces with a protective drainage membrane, such as **Polyfond Kit Drain** by Polyglass S.p.A., which also protects **Mapeproof AL 1200 AP** when backfilling holes and trenches.

RECOMMENDATIONS

- Do not apply **Mapeproof AL 1200 AP** if there is any free-standing water.
- **Mapeproof AL 1200 AP** is white in colour which means backfilling has to be carried out within a maximum of 15 days of being applied.

PACKAGING

Mapeproof AL 1200 AP is available in 20 m^2 rolls (width 1 m).

STORAGE

Mapeproof AL 1200 AP may be stored for 15 months in its original packaging in a dry area at a temperature of +10°C to +25°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeproof AL 1200 AP is an article and referring to the current European regulations (Reg. 1907/2006/EC - REACH) does not require the preparation of the Safety Data Sheet. During use it is recommended to wear protective gloves and goggles and follow the safety requirements of the workplace.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency/material:	self-adhesive HDPE membrane
Width of roll:	1 m
Nominal thickness:	1.2 mm
Weight:	1.1 kg/m²

APPLICATION DATA	
Recommended application temperature range:	from +5°C to +35°C

FINAL PERFORMANCE	
Watertightness (no lateral migration) according to ASTM D 5385 mod.:	≥ 7 bar
Radon gas diffusion coefficient (m^2s^{-1}):	1.43 E-13
Permeability to methane gas (ISO 7229):	34.40 ml/m²*24 h
Lap peel adhesion (ASTM D 1876):	> 900 N/m
Puncture resistance (ASTM E 154):	> 900 N
Water vapour transmission (ASTM E 96/E 96M):	< 0.1 g/24 h·m²
Water absorption (ASTM D 570):	0.2%
Tensile strength (ASTM D 412):	≥ 20 MPa
Elongation at break (ASTM D 412):	> 500%

Performance characteristics	Test method	Requirements according to EN 13967	Performance results of Mapeproof AL 1200 AP
Impermeability to water:	EN 1928 (B method)	24 h at 60 kPa	pass
Visible defects:	EN 1850-2	none	none
Tensile strength:	EN 12311-2 (B method)	Value declared by the manufacturer	longitudinal: ≥ 15 N/mm²transversal: ≥ 15 N/mm²
Elongation at break:	EN 12311-2 (B method)	Value declared by the manufacturer	longitudinal: ≥ 400%transversal: ≥ 400%
Static load resistance:	EN 12730	Value declared by the manufacturer	Method B, 20 kg load: pass
Resistance to tearing (nail shank):	EN 12310-1	Value declared by the manufacturer	longitudinal: ≥ 200 N transversal: ≥ 500 N
Tensile strength of joints:	EN 12317-2	Value declared by the manufacturer	≥ 500 N/50 mm
Impact resistance:	EN 12691	Value declared by the manufacturer	Method A 500 mm height: pass
Reaction to fire:	EN 13501-1	Euroclass	E

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

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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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