

PURTOP HA

Manually-applied two-component, polyurea waterproofing membrane



WHERE TO USE

Due to its excellent chemical resistance, high elasticity and high tear strength, **Purtop HA** is suitable for forming waterproofing membranes on small to medium size terraces and flat roofs, and for repairing surfaces waterproofed with hybrid polyurea and/or pure polyurea membranes.

Purtop HA is an integral part of the **Purtop** range of products made by MAPEI, and so may be used wherever these products are employed on limited surface areas, or to repair surfaces after adequate preparation.

Advantages

Purtop HA adheres extremely well to various types of substrate if treated with a suitable primer, and once applied forms a strong, elastic seamless membrane.

Purtop HA offers the following advantages:

- excellent tensile strength (10 N/mm² according to ISO 37);
- excellent tear strength (40 N/mm according to ISO 34-1);
- high static and dynamic crack-bridging capacity, including at low temperatures (below -20°C);
- elongation capacity of more than 500% (ISO 37);
- excellent resistance to alkalis and diluted acids;
- no reinforcement required;
- does not generate overloads on load-bearing structures.

TECHNICAL CHARACTERISTICS

Purtop HA is a two-component, solvent-free, polyurea resin formulate according to a formula developed in the MAPEI R&D laboratories. The product is applied manually, and has a workability time of 20 minutes at +23°C.

Apply **Purtop HA** in layers at least 2 mm thick.

Due to its high tensile strength, tear strength and crack-bridging capacity, when reticulation is complete, **Purtop HA** forms a seamless, waterproof coating which adapts to any shape of substrate without cracking (including in service temperatures lower than -20°C).

RECOMMENDATIONS

- Clean and prime substrates before applying **Purtop HA**.
- Do not apply **Purtop HA** on substrates with rising damp.
- Do not dilute **Purtop HA** with water or solvent.

APPLICATION PROCEDURE

Substrate preparation

Check the substrate to make sure it is suitable for applying the waterproofing system. If necessary, prepare the surface with a suitable mechanical treatment to remove all traces of oil, grease, dirt and any other material which could compromise adhesion of the waterproofing system. Remove all dust and any loose or detached parts from the substrate to leave a dry, porous, slightly rough surface with no contaminants.

The treatment method employed to prepare the substrate and the type of primer used depends on the type of substrate on which **Purtop HA** is applied.

For mineral substrates (concrete, screeds, etc.), apply a coat of **Primer SN** with a trowel or smooth spreader and dust the surface with **Quartz 0.5**. Apply the waterproofing membrane within 12 to 24 hours of applying the primer (at a temperature of between +15°C and +25°C).

If the level of residual humidity in the substrate is higher than 4% and it is not possible to wait until it drops to a lower value, apply several coats of **Triblock P** three-component epoxy-cementitious primer according to the condition of the substrate, until the system is completely sealed.

When the primer has cured sufficiently (3-7 days) apply a coat of epoxy primer (such as **Primer SN** or **Mapecoat I 600 W**); contact MAPEI Technical Services for further advice.

Clean and sandblast metallic substrates (to grade Sa 2 ½ according to Swedish Standards), then apply **Primer EP Rustop** two-component epoxy primer by brush, with a roller or by airless spray.

For small, local repairs on existing membranes from the **Purtop** range, on the other hand, lightly sand the membrane and apply **Primer M** by brush before carrying out the repair work.

Application of the membrane

Purtop HA is supplied in pre-dosed kits (component A + component B) to enable the correct mixing ratio between the two components. Before mixing the components, store them at a temperature of between +15°C and +25°C. Mix them together by pouring the contents of component B into the container with component A, and mix them together for at least three minutes until they are completely blended.

Do not mix the product manually.

Scrape around the sides of the container to make sure all the contents of the two components are completely blended.

Once **Purtop HA** is completely blended, it is easy to apply by pouring and spreading it evenly on the surface with a notched trowel (the size of the notches depends on the average thickness of the membrane).

CLEANING

Because of the high adhesion of **Purtop HA**, we recommend cleaning tools with solvent naphtha before it starts to set. Once hardened, cleaning is much more difficult and must be carried out mechanically.

CONSUMPTION

Consumption of **Purtop HA** depends on the roughness of the various substrates. The theoretical consumption on a smooth surface with a substrate temperature of between +15°C and +25°C is 2.6 kg/m² per 2.0 mm of thickness.

If the substrate is rougher or if the application temperature is lower, consumption and the setting and hardening times increase considerably. For severely damaged substrates, we recommend repairing them with a suitable product beforehand.

PACKAGING

Purtop HA is available in metal drums.

Component A: 10 kg drums.

Component B: 10.7 kg drums.

STORAGE

Purtop HA may be stored for 12 months in its original packaging in a covered, dry area at a temperature of between +15°C and +25°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Purtop HA is harmful and irritant for the eyes. **Purtop HA** comp. B is harmful if inhaled, it is irritant for the respiratory apparatus and, if in contact with the skin, it can cause sensitisation in those subjects sensitive to isocyanates. When applying the product, we recommend the use of protective gloves and goggles and to take the usual precautions for handling chemical products. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention. In case of poor ventilation, we recommend wearing the mask with filters.

Then, **Purtop HA** comp. A is also hazardous for aquatic life. Do not dispose of these products in the environment.

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

PRODUCT ONLY FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Component A	
Consistency:	thixotropic
Colour:	grey
Density (g/m ³):	1.6 ± 0.03
Dry solids content (%):	85
Brookfield viscosity (+23°C, mPa·s):	70,000 ± 5,000 (rotor 7 - rpm 20)
Component B	
Consistency:	liquid
Colour:	colourless
Density (g/m ³):	1.02 ± 0.03
Dry solids content (%):	100
Brookfield viscosity (+23°C, mPa·s):	9,700 ± 500 (rotor 7 - rpm 100)
APPLICATION DATA (A+B)	
A/B ratio (in weight):	100/106.5
A/B ratio (in volume):	37/63
Density A+B (g/cm ³):	1.30 ± 0.03
Workability time at +23°C (min):	20
Resistance to rain at +23°C (hours):	1
Waiting time before stepping on at +23°C (hours):	24
Min/max surrounding temperature (°C):	+5/+40
Maximum level of relative humidity in the air (%):	85
PERFORMANCE ON FREE FILM (thickness 2 mm)	
Mechanical characteristics after 7 days at +23°C: – tensile strength (ISO 37) (N/mm ²): – elongation at failure (ISO 37) (%): – modulus at 100% (ISO 37) (MPa): – tear strength (ISO 34-1) (N/mm): – Shore A hardness (DIN 53505): – glass transition temperature (°C):	10 500 3 40 72 –55

TYPE OF PRIMER ACCORDING TO TYPE OF SUBSTRATE			
SUBSTRATE	PRIMER	CONSUMPTION (g/m ²)	MIN-MAX COVERING TIMES (approximate)
Concrete	Primer SN dusted with sand	300-600	12-24 hours
	Triblock P	800-1000	2-7 days
Metal	Primer EP Rustop	approx. 200	6-24 hours
Purtop line products	No primer	–	30 mins. - 2 hours
	Primer M	approx. 50	1-2 hours

Note: the covering times are for temperatures of +15°C to +25°C and the consumptions can be subjected to variations according to the roughness of the substrate.

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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