EC PRIM PU 1K TURBO

One-component, solvent-free, moisture curing, rapid-drying polyurethane primer with a very low emission level of volatile organic compounds (VOC) for consolidating and waterproofing cementitious screeds





WHERE TO USE

- Surface consolidation and dust-repelling treatment on cementitious, anhydrite and heated substrates.
- Waterproofing cementitious screeds with a residual humidity content higher than the level recommended for laying parquet. **EC Prim PU 1K Turbo** can be applied to substrates with moisture up to 6% CM; (measured with Carbide hygrometer - UNI 10329) or relative moisture up to 92% R.H., or up to 98% for 2 coats (measured with in situ probe test - ASTM F2170 - BS 8203). On screeds with heating up to a maximum of 3% CM or 50 % H.R.

Some application examples

- Consolidator for weak cementitious screeds.
- Waterproofing treatment before laying wooden flooring, to prevent a failure due to excessive residual humidity in the cementitious screed.
- Anti-dust treatment for cementitious and dry anhydrite screeds with a crumbly surface.
- Priming surfaces before bonding parquet with MAPEI resin-based reactive adhesives. **EC Prim PU 1K Turbo** may also be used as a primer on:
  - OSB chipboard panels;
  - slab-paved surfaces;
  - ceramic tiles and terraces;
  - traces of old glue.
- In the case of refurbishing existing parquet floors, the product is suitable for consolidating and fixing elements partially detached from the subfloor, before sanding and new painting. It is recommended to proceed with application before removing the old finish.

TECHNICAL CHARACTERISTICS

EC Prim PU 1K Turbo is a one-component polyurethane primer which hardens due to the humidity present in the surrounding air and in the screed.

EC Prim PU 1K Turbo is characterised by its short set to light foot traffic period and that it quickly loses tackiness, so that parquet may be laid after a very short time (after approximately 2 hours in normal conditions of

temperature and humidity).

EC Prim PU 1K Turbo does not contain solvents, is odourless and is not flammable.

EC Prim PU 1K Turbo has a very low emission level of volatile organic compounds (EMICODE EC1 Plus).

Because of the total absence of solvents and odour, **EC Prim PU 1K Turbo** may also be used on sites which are located close to inhabited areas (such as flats, schools, offices, etc.).

After application and rapid curing of the resin, the substrate treated with **EC Prim PU 1K Turbo** becomes more consistent, harder and is resistant to abrasion.

RECOMMENDATIONS

- Do not dilute **EC Prim PU 1K Turbo** with water or solvent.
- Do not apply **EC Prim PU 1K Turbo** on wet surfaces or in the presence of rising damp.
- If a smoothing and levelling compound has to be applied, or if the parquet is to be laid after more than 24 hours, apply **EC Prim PU 1K Turbo** so that a thin layer remains on the surface. Completely saturate this layer with **Quartz 0.8** while the primer is still fresh.
- The product is suitable for consolidating heated screeds and anhydrite substrates which cannot be waterproofed. These kinds of substrates must be dry before applying the primer.
- The laying of wooden flooring on substrates treated with **EC Prim PU 1K Turbo** must be carried out using a reactive polyurethane adhesive, an epoxy-polyurethane adhesive or a sililated polymer-based adhesive.

APPLICATION PROCEDURE

Preparation of the substrate

The screed must be clean and free of oil, wax and dirt. Traditional screeds must be cured for at least 7-10 days per centimetre of thickness, while quick-drying or rapid-drying screeds must be cured according to the manufacturer's instructions for each particular product.

Cracks and crazing must be opened and then sealed with **Eporip** and **Eporip Turbo** in order to remove any breaks or interruptions in the surface.

Once the screed is dry and cured, if there are any areas with surface bleeding or that are weak and detached from the screed, the surface must be mechanically abraded before applying **EC Prim PU 1K Turbo**.

Before applying **EC Prim PU 1K Turbo**, remove all dust and any loose material from the surface.

If used for consolidating purposes, make sure that the porosity of the surface is sufficient to allow **EC Prim PU 1K Turbo** to penetrate.

If the screed is excessively smooth, the surface must be abraded in order to open the pores.

Application of the product

Apply **EC Prim PU 1K Turbo** with a roller or brush. On porous substrates, a single coat of the product is usually enough to obtain a good waterproofing and consolidating effect.

On particularly porous substrates, or substrates in poor condition, a second layer should be applied when the first is suitable to light foot traffic (after approximately 30 minutes).

If the substrate needs to be rectified with a cementitious smoothing and levelling compound, apply a coat of **EC Prim PU 1K Turbo**. Make sure a thin layer is left on the surface and, while it is still wet, broadcast it with **Quartz 0.8** until completely saturated.

For the rectification of the substrate by the use of a cementitious skim coat, as an alternative to quartz splaying, **Eco Prim T Plus** can be used as described in the relevant technical data sheet and, in the case of subsequent installation of parquet, only multilayer prefinished. When **EC Prim PU 1K Turbo** has completely hardened, the cementitious smoothing compound may be applied after removing all quartz which is not sufficiently bonded.

On particularly porous substrates with residual moisture above 5%, apply at least two coats of **EC Prim PU 1K Turbo**. As soon as the surface sets to foot traffic check whether a third coat is required. If a third coat is applied broadcast the surface with **Quartz 0.8**.

If the parquet is to be laid directly after 24 hours, prepare the substrate with Quartz 0.8, as described above to provide a key for the cementitious smoothing and levelling compound.

As an alternative, it may be laid directly on the primer after at least 2 hours and after no more than 24 hours of its application using a reactive polyurethane adhesive, an epoxy-polyurethane adhesive or a sililated-based adhesive.

CLEANING

EC Prim PU 1K Turbo may be removed from clothing and tools while still fresh using **Thinner PU** or **Cleaner L**.

Once set, it may only be removed using **Pulicol 2000**.

CONSUMPTION

80-100 g/m² per coat.

As a vapour barrier up to a maximum of 450 g/m².

PACKAGING

The product is available in 10 kg drums.

STORAGE

EC Prim PU 1K Turbo is stored for 12 months in its original, well-sealed container stored under normal conditions. 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:	liquid
Colour:	brown
Density (g/cm³):	1.20
Maximum residual humidity permitted:	– 6% CM (carbide hygrometer - UNI 10329); – 92% R.H. for 1 coat or 98% for 2 coats (in situ probe test - ASTM F2170 - BS 8203)
Brookfield viscosity at +23°C (mPa·s):	300 (rotor 1 - 10 rpm)

Dry solids content (%):	100
EMICODE:	EC1 Plus - very low emission

APPLICATION DATA (at +23°C - 50% R.H.)	
Application temperature:	from +5°C to +35°C
Loss of stickiness:	after 30-40 minutes
Set to light foot traffic:	30-40 minutes
Final hardening time:	2 hours
Waiting time between each coat:	min. 40 minutes, max. 2 hours
Waiting time before laying directly with adhesive:	minimum 2 hours, maximum 24 hours
Minimum waiting time before successive treatments on final coat (broadcast with sand):	2 hours

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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