

# ECO PRIM PU 1K TURBO

One-component, quick drying, solvent-free, moisture curing polyurethane primer with very low emission 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. **Eco 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. **Eco 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.

## TECHNICAL CHARACTERISTICS

**Eco 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.

**Eco 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).

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

**Eco Prim PU 1K Turbo** has a very low emission level of volatile organic compounds (EMICODE E1 Plus).

Because of the total absence of solvents and odour, **Eco 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 **Eco Prim PU 1K Turbo** becomes more consistent, harder and is resistant to abrasion.

## RECOMMENDATIONS

- Do not dilute **Eco Prim PU 1K Turbo** with water or solvent.

- Do not apply **Eco 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 **Eco 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 **Eco 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 **Eco Prim PU 1K Turbo**.

Before applying **Eco 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 **Eco 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 **Eco 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 **Eco 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.

When **Eco 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 **Eco 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 a levelling compound with a thickness higher than 10 mm or a traditional solid wood parquet should not be applied, as an alternative to sprinkling on quartz, bonding of the levelling compound may be improved by applying a coat of **Eco Prim T Plus** on the surface of **Eco Prim PU 1K Turbo**. **Eco Prim T Plus** must be applied after at least 4 hours (or when dry to the touch) and not later than 24 hours from the application of **Eco Prim PU 1K Turbo**.

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

**Eco 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/m<sup>2</sup> per coat.

As a vapour barrier up to a maximum of 450 g/m<sup>2</sup>.

## PACKAGING

The product is available in 10 kg drums.

## STORAGE

Eco 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](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	brown
Density (g/cm <sup>3</sup> ):	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](http://www.mapei.com)

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