



# ECO Prim PU 1K

**One component, solvent-free, moisture curing polyurethane primer with very low emission of volatile organic compounds (V.O.C.) for waterproofing and consolidating cementitious screeds**



## WHERE TO USE

- Surface consolidation of cementitious, anhydrite and heating substrates.
- *Waterproofing* cementitious screeds with a residual humidity content higher than the level recommended for laying parquet, up to a maximum limit of 5% for screeds up to 6 cm thick which are not subject to rising damp.

## Some application examples

- Consolidating cementitious screeds which are mechanically weak.
- Waterproofing treatment before laying wooden flooring, to prevent moisture damage due to excessive residual humidity in the cementitious screed.
- Anti-dust treatment for cementitious and dry anhydrite screeds with a crumbly surface.

## TECHNICAL CHARACTERISTICS

**Eco Prim PU 1K** is a one-component polyurethane primer which hardens with the moisture present in the surrounding air and in the screed. It is low viscosity and, therefore, has a high capacity for penetrating into the porosity of the screeds.

**Eco Prim PU 1K** does not contain solvents and, therefore, is odourless and is not inflammable.

**Eco Prim PU 1K** has a very low emission level of volatile organic compounds (EMICODE EC1 R).

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

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

## RECOMMENDATIONS

- Do not dilute **Eco Prim PU 1K** with water or solvent.
- Do not apply **Eco Prim PU 1K** on wet surfaces or in the presence of rising damp.
- If a cementitious smoothing and levelling compound has to be applied, or if the parquet is to be laid after more than 72 hours (three days), apply **Eco Prim PU 1K** so that a thin layer remains on the surface. Completely blind this layer with **Quartz 1.2** mm while the primer is still fresh.
- The product is suitable for consolidating heated screeds and anhydrite substrates which *cannot be waterproofed*. Make sure that these kinds of substrate are dry before applying the primer.
- The laying of wooden flooring on substrates treated with **Eco Prim PU 1K** must be carried out using a reactive polyurethane adhesive (such as **Ultrabond P990 1K** or **Ultrabond Eco P992 1K**), an epoxy-polyurethane adhesive (such as **Lignobond** or **Ultrabond P902 2K** or a silicated-based adhesive (such as **Ultrabond Eco S955 1K**).

TECHNICAL DATA (typical values)	
<b>PRODUCT DETAILS</b>	
<b>Consistency:</b>	liquid
<b>Colour:</b>	brown
<b>Density (g/cm<sup>3</sup>):</b>	1.05
<b>Maximum residual humidity permitted:</b>	5%, measured with carbide hygrometer (for screeds thicknesses of approx. 6 cm)
<b>Brookfield viscosity (at +23°C) (mPa-s):</b>	65 (#1 - 10 rpm)
<b>Dry solids content (%):</b>	100
<b>Hazard classification according to EC 1999/45:</b>	harmful. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
<b>Storage:</b>	12 months. Protect from frost
<b>EMICODE:</b>	EC1 R - extremely low emission level
<b>Customs class:</b>	3208 90 91
<b>APPLICATION DATA (at +23°C - 50% R.H.)</b>	
<b>Application temperature range:</b>	from +5°C to +35°C
<b>Loss of stickiness:</b>	after 4-5 hours
<b>Set to light foot traffic:</b>	after 9-10 hours
<b>Final hardening time:</b>	24 hours
<b>Waiting time between each coat:</b>	min. 3 hours, max. 24 hours
<b>Waiting time before laying directly with adhesive:</b>	minimum 2 hours, maximum 24 hours
<b>Minimum waiting time before successive treatments on final coat (sprinkled with sand):</b>	36 hours

## 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 surface crazing must be opened and then repaired with **Eporip** or **Eporip Turbo**.

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

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** with a roller or a brush. On porous substrates, a single application is usually sufficient to obtain a good consolidating and waterproofing effect. On particularly porous or deteriorated substrates, the application of a second coat is recommended; wait at least 3 hours between each coat. Do not wait more than 12-24 hours between each application in order to guarantee that the two coats bind sufficiently together.

If the substrate needs to be rectified with a cementitious smoothing and levelling compound, apply a coat of **Eco Prim PU 1K**. Make sure there is a thin layer on the surface, and while it is still fresh, apply **Quartz 1.2 mm** until it is completely saturated. Wait at least 36 hours, then apply a layer of cementitious smoothing and levelling compound after

removing all quartz which is not sufficiently bonded.

**If the parquet is to be laid directly after 72 hours, prepare the substrate with a sprinkling of quartz sand, as described above for the cementitious smoothing and levelling compound.**

**As an alternative, it may be laid directly on the primer after at least 24 hours, and after no more than 72 hours of its application, using a reactive adhesive (such as Ultrabond P990 1K, Ultrabond Eco P992 1K, Ultrabond P902 2K or Ultrabond Eco S955 1K).**

#### **Cleaning**

**Eco Prim PU 1K** 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**.

#### **CONSUMPTION**

0.2-0.4 kg/m<sup>2</sup> per coat.

#### **PACKAGING**

The product is available in 10 kg drums.

#### **STORAGE**

12 months in its original, well-sealed container stored under normal conditions. Protect from frost.

#### **SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION**

**Eco Prim PU 1K** is harmful if inhaled, and irritates the eyes and respiratory tract when present in aerosol form. It may also cause localised rashes if it comes into contact repeatedly with the skin of those who are allergic.

Use protective clothing, gloves and goggles.

If the product comes into contact with the eyes, wash well with plenty of clean water and seek medical attention.

Only apply the product in well-ventilated areas and/or use a suitable protective mask to protect against inhaling whenever a mist is caused by the application system.

For further information, please refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

#### **WARNING**

*While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.*



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



**Our Commitment To The Environment**  
More than 150 MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

**All relevant references  
for the product are available  
upon request and from  
[www.mapei.com](http://www.mapei.com)**

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