



Primer MF EC Plus



Two-component, solvent-free, low viscosity epoxy primer to be used to consolidate and waterproof cementitious substrates with very low emission of volatile organic compounds (VOC)

WHERE TO USE

Waterproofing cementitious screeds which have a residual humidity content higher than the maximum level recommended for laying wooden and resilient floors.

Consolidating unstable and/or mechanically weak substrates.

Some application examples

- Consolidating the surface of cementitious screeds which are mechanically weak due to a lack of binders or insufficient curing and heating screeds, too.
- Waterproofing treatment before laying parquet, to prevent rising damp due to excessive residual humidity in the screed.
- Anti-dust treatment for cementitious and anhydrite screeds with an unstable surface.
- Binder for mixing with quartz to prepare a synthetic mortar for small smoothing and repair operations.
- Impregnator with a dust-repellent finish, for concrete industrial floors and surfaces for laying raised floors.

TECHNICAL CHARACTERISTICS

Primer MF EC Plus is a two-component resin epoxy primer with low viscosity and at the same time

having a high penetration capacity in the pores of the substrate with no need for dilution.

Primer MF EC Plus does not contain solvents, therefore is not flammable, only having the typical odour of resin based products.

Because of the total absence of solvents **Primer MF EC Plus** can also be used in building sites situated near inhabited environments (e.g. apartments, schools, offices, etc.).

After the application of **Primer MF EC Plus** and the polymerisation of the resins, the substrate is sound, stronger and more resistant to abrasion.

Primer MF EC Plus is certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.) as a product with very low emission level of volatile organic compounds (EC1 R).

RECOMMENDATIONS

- Do not dilute **Primer MF EC Plus** with water or solvents.
- Do not use on wet surfaces and when there is continuous rising water.
- If levelling compounds need to be applied over **Primer MF EC Plus** treated substrates, scatter evenly the surface with **Quartz 1.2** or clean dry sand while the primer is still fresh. Carry out the smoothing compound after 24-36 hours depending on temperature.

- Do not apply any product (smoothing and levelling layer or adhesive) on surfaces treated with **Primer MF EC Plus** which have a shiny finish. If the excess product doesn't penetrate into the pores of the screed, or if sand has not been sprinkled on the surface and it has already set, the surface must be well sanded.
- The product is suitable for consolidating heated screeds and anhydrite substrates, but they must not be treated with a waterproofing product. Therefore, make sure that these kinds of substrate are dry before applying the primer.
- When laying parquet on substrates treated with **Primer MF EC Plus**, use a reactive polyurethane adhesive (such as **Ultrabond P990 1K**) or an epoxy-polyurethane adhesive (such as **Lignobond** or **Ultrabond P902 2K**).

APPLICATION PROCEDURE

Preparing 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. Remove cement laitance on concrete surfaces by mechanical abrasion so that **Primer MF EC Plus** can penetrate into the substrate.

In order to ensure good penetration of **Primer MF EC Plus**, the surfaces of cementitious and concrete substrates which are very sound, must be abraded before it is applied.

Cracks and surface crazing must be opened and then sealed with **Eporip** or **Eporip Turbo** to eliminate unevenness.

Preparing the product

The two components of **Primer MF EC Plus** are supplied pre-measured:

component A: 4 parts by weight;

component B: 1 part by weight.

The parts must be mixed together with a low speed mixer until a uniform mix is obtained.

Application of the product

- **For consolidating and waterproofing treatments**

Apply **Primer MF EC Plus** with a roller, a brush or flat trowel in one or more coats, according to the quantity required. For waterproofing treatments, apply at least 2 coats of the product, and wait at least 3 hours between each coat. Do not wait more than 12 hours between each application in order to guarantee that

there is a perfect bond between each coat.

If **Primer MF EC Plus** is not completely absorbed, sprinkle a layer of **Quartz 1.2** or clean, dry sand on the product while it is still fresh.

The remains of sand which are not well bonded must be removed. Smoothing and levelling compounds may be carried out before applying wooden floors with a reactive polyurethane adhesive (such as **Ultrabond P990 1K**) or an epoxy-polyurethane adhesive (such as **Ultrabond P902 2K** or **Lignobond**).

If sand or quartz is not sprinkled on the surface of the primer, wooden floors must be laid before it has completely set (within 24-36 hours) using only a two-component epoxy-polyurethane adhesive (such as **Lignobond** or **Ultrabond P902 2K**).

- **For repair operations**

If only small areas of the screed need to be smoothed over or repaired, **Primer MF EC Plus** diluted with **Primer KL** mixed with **Quartz 1.2** may be used.

The mixing ratio in this case is 10 kg of **Quartz 1.2** per 5 kg of **Primer MF EC Plus**. The mortar prepared using this blend is easy to apply and, once set, forms a very solid repaired area on which any kind of parquet may be applied.

The mortar must be applied on substrates which have been treated with **Primer MF EC Plus** applied within the previous 24 hours. Parquet floor covering must be bonded using a reactive polyurethane adhesive (such as **Ultrabond P990 1K**) or an epoxy-polyurethane adhesive (such as **Lignobond** or **Ultrabond P902 2K**).

Cleaning

Primer MF EC Plus can be cleaned from tools and clothing with ethyl alcohol while the product is still fresh.

COVERAGE

0.200-0.300 kg/m² each coat.

PACKAGING

5 kg units (A + B).

STORAGE

The product is stable for 24 months when stored in a cool, dry sheltered place. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Primer MF EC Plus component A is irritant in direct contact with eyes and skin.

Primer MF EC Plus component B contains highly caustic and harmful substances when inhaled.

TECHNICAL DATA (typical values)**PRODUCT IDENTITY**

| | component A | component B |
|---|---|----------------------|
| Colour: | transparent yellow | transparent yellow |
| Density (g/cm³): | 1.14 | 0.95 |
| Maximum permissible residual humidity for waterproofing: | 5%, measured using a carbide hygrometer (for screed thicknesses of approximately 6 cm) | |
| Hazard classification according to EC 1999/45: | irritant, dangerous for the environment Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet | corrosive |
| Brookfield Viscosity (mPa·s): | 1100 (# 2 - rpm 50) | 35 (# 2 - rpm 50) |
| Dry solids content (%): | 100 | 100 |
| Storage: | 24 months | 24 months |
| EMICODE: | EC1 R - very low emission | |
| Customs class: | 3208 90 91 | |

APPLICATION DATA

| | |
|---|---|
| Mix ratio: | component A : component B = 4 : 1 |
| Consistency of mix: | liquid |
| Colour: | transparent |
| Density (g/cm³): | 1.1 |
| Brookfield Viscosity (mPa·s): | 350 (# 2 - rpm 50) |
| Application temperature range: | from +10°C to +30°C |
| Workability - at +10°C: - at +23°C: - at +30°C: | 150 minutes 40 minutes 30 minutes |
| Setting time - at +10°C: - at +23°C: - at +30°C: | > 8 hours 5-6 hours 4-5 hours |
| Set to light foot traffic - at +10°C: - at +23°C: - at +30°C: | 24 hours 8 hours 6 hours |
| Final curing at +23°C: | 7 days |

FINAL PERFORMANCES

| | |
|---|--------------------------------|
| Resistance to moisture: | excellent |
| Adhesion to concrete (N/mm²): | > 3 (failure in the substrate) |
| Temperature when in use: | from -5°C to +80°C |

Primer MF EC Plus

If in direct contact with the skin, can produce sensitivity of the skin. Always wear protective gloves and goggles and provide good ventilation when using the product. During application, make sure the working areas are well ventilated. In case of contact with skin or eyes, wash thoroughly with running water and seek medical advice (consult the safety data sheet).

Primer MF EC Plus component A is dangerous for aquatic organisms - do not dispose of the product to the environment.

FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this 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

applications: 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.



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft 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**

