

COATIX® EP 1220 Primer

Hardened Surface Primer

Product Description

COATIX® EP 1220 Primer is a two-component, solvent-based, low-viscosity, epoxy resin-based surface impregnation primer. Thanks to its high penetration, it fills the capillary pores of concrete floors, increases surface strength and acts as a bonding bridge for subsequently applied epoxy coatings or paints. Thanks to its low viscosity and special formulation, it achieves very high bond strength on concrete and screeds treated with a surface hardener.

Areas of Use

- As an epoxy primer on concrete and screed surfaces treated with a surface hardener
- As an epoxy primer for self-leveling cementitious screeds
- Factories, warehouses, workshops and aircraft hangars
- Shopping centres, schools and hospitals
- Pharmaceutical and food industry facilities, laboratories
- Cold stores and kitchens
- Car parks, ramps and treatment plants
- Areas with heavy forklift traffic and corrosive chemicals
- As a primer coat before coating in self-leveling and other epoxy top coat applications

Advantages

- Penetrates deep into the surface thanks to its low viscosity
- Increases surface strength by filling the capillary pores of the concrete surface
- Provides high adhesion even on closed-pore concrete and screeds treated with a surface hardener
- Forms a strong and durable bonding bridge for subsequent epoxy coats
- Supplied at ready-to-use consistency thanks to its special formulation; requires no additional thinning
- Forms a hard film; contributes to the abrasion and chemical resistance of the coating system
- Quick and easy to apply by roller or brush

Technical Properties

General Information	
Material structure	Two-component, solvent-based, epoxy resin-based (A: resin, B: hardener)
Colour / appearance	Transparent, glossy
Density (mixture)	1.00–1.10 g/cm ³ / 20°C (EN ISO 2811-1)
Viscosity (mixture)	100–200 mPa·s
Volatile organic compounds (VOC)	≤ 349 g/L
Solids content	60% (by weight)
Flash point	28°C
Mechanical Properties	
Pull-off adhesion strength (EN 1542:2001)	≥ 2.0 N/mm ²
Application Information	

Mixing ratio (A / B)	80 / 20 (by weight) – 4 / 1 (by volume)
Thinner	Do not thin
Application method	Roller, brush
Mixing equipment	Low-speed mechanical mixer, 300–500 rpm
Pot life	30–40 min / 23°C, 200 g (DIN 16945)
Consumption	80–120 g/m ² (single coat) – 8.3–12.5 m ² /kg
Dry film thickness	40–60 micron (at a consumption of 80–120 g/m ²)
Application temperature (ambient and substrate)	+10°C / +30°C
Permissible substrate moisture	Max. 4% by weight
Ambient relative humidity	Max. 80%
Drying Times	
Dust-dry	3–4 hours / 23°C (EN ISO 9117)
Touch-dry	8–10 hours / 23°C (EN ISO 9117)
Full cure	7 days / 23°C (EN ISO 9117)
Recoat interval	Min. 8–10 hours – max. 24 hours / 23°C
Safety Information	
Hazardous substances	Refer to SDS

The technical values stated were obtained at +23°C ambient temperature and 50% relative humidity; times are extended as ambient and surface temperatures fall and shortened as they rise. Consumption values are theoretical; for exact consumption, a controlled trial application must be carried out on site.

Application Instructions

Surface Preparation

The surface to be coated must be fully cured (28 days), sound, dry and load-bearing. Weak parts, laitance and loose particles on the surface must be removed by scarifying, sand/shot blasting or sanding. If the surface is very glossy or has been treated with a surface hardener, it must be cleaned thoroughly. Any oil on the surface must be burnt off or removed with a suitable cleaner; dirt and dust must be removed with an industrial vacuum cleaner. Damaged areas, cracks and voids must be repaired with repair materials compatible with the selected coating system. The pull-off strength of the surface must not be less than 1.5 N/mm².

Moisture Control

Before application, the moisture content of the concrete must be measured with a moisture meter; the permissible moisture limit is max. 4% by weight. If no moisture meter is available, a 1 m x 1 m plastic sheet is taped to the surface and left for 24 hours; if there is no condensation under the sheet when checked in the morning, application may proceed. Attention must also be paid to the dew point before application; the surface temperature must be at least 3°C above the dew point.

Mixing

Components A and B are each stirred separately in their own containers for approximately 30 seconds with a low-speed (300–500 rpm) mechanical mixer. All of component B (hardener) is poured into component A (resin) and mixed for at least 1 minute until a homogeneous mixture is obtained. The mixture is transferred to a clean container and mixed for a further 1 minute; ensure that no unmixed material remains on the sides and bottom of the container. To minimise air entrainment, avoid over-mixing and mixing at high speed.

The mixing ratio A/B is 80/20 by weight and must never be altered. If partial mixing is carried out, the ratio must be maintained by measuring or weighing. With large batches, the pot life is shortened and insufficient time remains for application.

Primer Application

The prepared mixture is applied to the surface in a uniform thickness with a roller or brush. On absorbent surfaces, the material must be allowed to penetrate fully into the pores, and ponding and film build-up on the surface must not be permitted; excess material must be spread out and removed with the roller. On very absorbent or excessively porous surfaces, a second primer coat may be required. After primer application, the other epoxy coats must be applied once the primer is touch-dry and within 24 hours at the latest.

Limitations

- Do not apply when the ambient and substrate temperatures are below +10°C or above +30°C.
- The substrate temperature must be at least 3°C above the dew point.
- On wet or damp floors or floors with rising damp, technical service must be consulted before application.
- The concrete floor must have cured for at least 28 days and have adequate surface tensile strength (at least 1.5 N/mm²).
- The mixture must be used within the specified pot life; mixture that has exceeded its pot life must not be used.
- If the 24-hour interval between coats is exceeded, the surface must be roughened by sanding before the new coat is applied.
- The primer must not be loaded or opened to foot/vehicle traffic before it has fully cured.
- The product must not be applied mixed with chemicals not approved by the manufacturer.
- As it contains solvent, the product must be applied only in well-ventilated areas; forced ventilation must be provided in enclosed spaces.
- Solvent vapour can form explosive mixtures with air; open flames, sparks and smoking must be excluded from the area during application and drying.
- Epoxy-based products may yellow and lose gloss under UV exposure; in applications continuously exposed to UV, protection with an aliphatic polyurethane top coat is recommended.

Cleaning of Tools

All tools and equipment used must be cleaned with COATIX® T 9100 Epoxy Thinner before the material cures. Cured material can only be removed mechanically.

Storage Conditions and Shelf Life

Container lids must be kept closed and label information complete. Follow the first-in, first-out rule and monitor expiry dates. The storage area must be dry, cool and well ventilated. As the product contains flammable solvent, it must be kept away from sources of heat, sparks and open flames, in accordance with the rules for the storage of flammable substances. The product must be stored in compliance with technical safety information and legal requirements. When stored between +15°C and +25°C in a dry, enclosed warehouse in unopened original packaging, the product has a shelf life of 12 months from the date of manufacture.

Safety Precautions

Observe the hazard and precautionary statements, safety signs and warnings on the packaging. Comply with the health and safety information contained in the Safety Data Sheet (SDS) for the product, prepared in accordance with the legislation in force (1907/2006/EC – REACH, Annex II and Regulation (EU) 2020/878).

The product contains flammable solvent. Open flames, sparks, hot surfaces and smoking must be excluded from the area during application and drying; electrical equipment must be explosion-proof (ex-proof) and earthed against the build-up of static electricity. Ensure adequate (if necessary, forced) ventilation during application; use protective equipment such as a mask with an organic vapour filter (type A), protective goggles and solvent-resistant gloves. Avoid direct contact with the product and do not inhale vapours; in case of contact, wash with plenty of water. Food and drink must not be brought into application areas. Store the product out of the reach of children and pets. The product and its packaging must be disposed of in accordance with the local regulations in force.

Liability

Our company is responsible only for the quality of the product. Any use of the product outside the scope of the written technical recommendations, including incorrect application or use under unsuitable conditions, is entirely the responsibility of the user. For more detailed technical information, please refer to the product catalogue or contact our representatives.

Packaging

Component A 16 kg + component B 4 kg = 20 kg set

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