



## Water-Based Epoxy Primer Defens PE-02 (2K)

# DEFENS™

### Description

Two-component vapour-permeable epoxy primer for concrete and other mineral substrates. Does not contain organic solvents.

### Intended use and scope

The primer is used as a primer composition when producing a thin-layer, monolithic, heavily filled polyurethane, polycarbamide and epoxy coatings for concrete surfaces in industrial, commercial, residential and public buildings and structures, transportation facility, warehouses, terminals, parking lots, as an insulating lining for collectors, reservoirs, artificial reservoirs, etc.

It is intended for preliminary surfaces priming before final polymer coating application. It is used to seal and harden porous and weak substrates, prevent dust formation, ensure reliable final polymer coating adhesion, especially on glossy or polished surfaces

It is used for priming of concrete, floor cement screeds, plasters, non-ferrous and ferrous metals, asbestos slate, roof tiles, bricks, artificial and natural stone, bitumen-based materials, gypsum plasterboard, fibreboard, chipboard, plywood, wood. It is used for priming floor cement screed before applying floor coverings (parquet, laminate, linoleum, etc.) and roll waterproofing (PVC, EPDM, TPO, etc.).

### Material advantages and features

Easy to use water-soluble non-toxic material.

Does not have a harmful effect on the environment.

Increased abrasion resistance, fastness to rubbing.

Exceptionally high adhesion and penetration to all substrates.

It is possible to apply on a wet substrate.

Resists negative hydrostatic pressure.

With the additional quartz sand or other mineral additives introduction, it is used for the stopping filler, levelling and repair polymer concrete compositions preparation.

Easy to use and safe material for professional use.

### Technical parameters

Indicator name and unit measure	Indicator value
Appearance and dried coating film colour	Homogeneous and transparent
Mixture non-volatile matter mass fraction, % , not less	55
Mixture slump loss time (spreadable life) at a temperature (20±2) °C, min, not less	30
Drying time to degree 3 at temperature (20±2) °C, h, no more	6
Adhesive strength not less than, N/mm <sup>2</sup>	2.5
Density at temperature (20±2) °C (components A+B), g/cm <sup>3</sup>	1.05±0.05
Ready-made mixture calculated consumption, kg/m <sup>2</sup> (practical consumption depends on the substrate absorption capacity)	0.2 – 0.4
Ignition temperature	Component A > 145 °C Component B ~ 108 °C
Mechanical loads are permissible in, days	1.5
The next coating shall be applied after, no later than, h	48

### Recommendations for use

#### Concrete substrate properties and preparation requirements

Concrete substrate properties and surface preparation methods must comply with the current construction and technical standards. The substrate must be solid, homogeneous, clean, dry, free from oils,

fats, crumbling areas, old coating flaking residues and other contaminants that prevent adhesion. Concrete substrate basic requirements: compressive strength — not less than 20 N/mm<sup>2</sup>, tear strength — not less than 1.5 N/mm<sup>2</sup>. Concrete substrate shall be treated with abrasive tools, bead blasting, milling or grinding equipment. For concrete floors with a reinforced top layer, only bead blasting is allowed. The dust formed during processing shall be carefully removed with an industrial vacuum cleaner.

#### **Application conditions requirements**

The primer components temperature, substrate surface temperature and the ambient air temperature in the work area: from + 10°C to +25°C.

**Attention!** The substrate surface temperature shall be at least 3°C above the measured dew point during both the primer application and primer layer complete polymerization/drying required time. Relative humidity: not more than 70 %.

#### **Application method**

Pour the entire volume of the comp. 1 and 2 in a mixing container of the appropriate volume and mix thoroughly until smooth for 2-3 minutes. To mix the components, use a low-speed (300-400 rpm) mixer with an electric drive.

#### **DO NOT MIX COMPONENTS MANUALLY!**

*Attention! Depending on the components reactive capacity, the epoxy composition curing process is accompanied by the release of a certain amount of heat. Epoxy composition mixture self-heating in the mixing tank can provoke its premature curing. Therefore, it is strongly not recommended to leave the prepared epoxy composition mixture directly in the mixing tank for a long time.*

**Application method:** brush, roller.

#### **Packaging and storage**

The primer is supplied in a sealed plastic container. The kit consists of two components (A, B), total weight — 10 kg; 20 kg. Store the primer in a tightly closed container, keep away from moisture, direct sunlight, and heat sources, at a temperature of + 5 to + 30°C. **Do not freeze!** The storage warranty period is 6 months from the manufacture date subject to compliance with the storage conditions.

#### **Tools cleaning**

Work tools and equipment shall be washed with water immediately after use. The cured composition can only be removed mechanically.

#### **Security precautions**

Persons working with epoxy primer shall be provided with personal protective equipment. All work shall be carried out in rooms equipped with supply and exhaust ventilation. In case of contact with skin or eyes, rinse thoroughly with water and seek medical advice if necessary. After complete drying and polymerization, the primer (stopping filler) layer is completely safe and allowed for operation as part of seamless polymer coating systems in public, residential and industrial premises, including food production, catering, pharmaceutical industry, agriculture, in rooms for children and medical institutions.

When carrying out work, use personal protective equipment, avoid contact with eyes, respiratory tract and skin. Keep away from fire.

#### **Remark**

*The information given in this specification is not intended to be completely comprehensive and any person using the product for any other purpose not mentioned in this specification without obtaining a written confirmation from us according to its suitability is acting at his or her own risk. We try to ensure that all given recommendations regarding the product (in this or other specifications) are correct but we cannot control both the treated surface quality and condition, as well as take into account the many other factors influence that affects the way of use and product application. Therefore, unless we expressly agree in writing to do so, we assume no liability whatsoever for whatever happens due to the product application or for any loss or damage resulting from the use of the product. The information contained in this specification is subject to change from time to time based on our experience and continuous product development policy. It is the user responsibility to verify this specification is valid before using the product.*