

EPISOL® UNIVERSAL

UNIVERSAL EPOXY RESIN, TO BE USED AS A PRIMER, SCRATCH COAT, LEVELLING SCREED, EPOXY MORTAR, FLOOR AND TOPCOAT



DESCRIPTION

Universal, transparent, 2 component epoxy resin. To be used as a primer or as a binder for levelling screeds or scratch coats, epoxy mortars and a floor system with a topcoat.

BENEFITS

- Simple mixing ratio 2 : 1
- Shrink-free reaction
- Versatile product
- Good chemical and mechanical resistance
- High thermal shock resistance for overlaying with bituminous felts
- Transparent
- Can be overcoated with self-leveling smooth and anti-slip epoxy and polyurethane floor systems

FIELD OF APPLICATION

- Primer for mineral and ceramic substrates
- Egaliser and scratch coat for inside and outside
- Heat-resistant scratch coat, sealer or primer under bituminous membranes or felts
- Filling mortar - to be applied horizontally
- Multi-layer antiskid coating
- Industrial trowel floor and topcoat

APPLICATION

Note: The following is a typical application description. In case of other jobsite parameters, please contact our technical department.

PRELIMINARY ANALYSES

Before starting the substrate preparation and applying the products, it is important to test various parameters in order to achieve a good and sustainable result.

Compressive strength of the substrate: min. 25 N/mm²

Tensile strength of the substrate: min. 1.5 N/mm²

EPISOL® UNIVERSAL can be applied on a dry surface.

When a first coat is applied to a mineral or ceramic substrate, the moisture content in the substrate is: ≤ 5 % moisture.

Conditions during the application and curing: see section "Application Conditions".

Technically studied dilatation joints must be provided. These are resumed in the synthetic resin system to be installed.

Shrink joints and passive cracks can be coated. This on condition that they are not used as dilatation joints or if they do not follow other movements of the structure and the substrate and that they are flattened with products that are complementary to the substrate and to the synthetic resin system to be installed.

REQUIRED TOOLS

- Mixing containers
- Mixer with spindle (min. 300-800 rpm)
- Squeegee, brush or 2 component paint roller suited for epoxy based products, de-aerating roller, spatula or trowel, depending on the application

PREPARATION OF THE SUBSTRATE

Cracks, joints and other parts that show water leaks must first be made completely water-tight and leak-proof.

The surface must be mechanically pre-treated. This can be achieved by removing the dust by bullet- or sandblasting or by sanding the surface. These treatments ensure that an open texture surface is obtained, to remove the cement skin from concrete and old remnants of coatings and adhesives.

High pressure water jetting is possible but then the surface must dry sufficiently. moisture content in the substrate: ≤ 5% moisture. Before applying the primer:

Ceramic surfaces must always be sanded.

Always apply the products on a clean surface, free from adhesion reducing materials such as dirt, oil, grease, old coatings or surface treatments, ...

For application as a heat-resistant layer or system under bituminous seals, compatibility with the applied asphalt pavement should be tested beforehand by means of adhesion tests....

PREPARATION OF THE PRODUCT

Mix A en B components well before use.

Mix the resin (A-component) and the hardener (B-component) in the correct mixing ratio (see section Technical data). Mix mechanically (300-800 rpm) until both components are homogeneous.

Depending on the application, fillers are added during the mixing. Mix until the mixture is homogeneous.

PREPARATION OF THE EQUIPMENT

Always work with clean mixing containers and application material.

APPLICATION

As primer

Apply the prepared mixture, without fillers, and distribute it with a squeegee. Roll with a roller or brush to achieve an even spread.

As scratch coat / levelling screed with filler M4 or M32

Add quartz flour M4 or white sand M32 to the prepared A+B mixture in a weight ratio resin : filler of 1 : 1 to 1.5. Spread the mixture onto the surface with a spatula, tooth comb or squeegee. Roll to vent with a pointed de-aerating roller.

As mortar with ISGB1 sand

Add ISGB1 to the homogeneously mixed A + B components in a weight ratio resin : filler of 1 : 7 to 10. The mortar is placed on a fresh, still wet primer (pure EPISOL® UNIVERSAL resin at the rate of 300 g/m²). Spread with the smoothing trowel and compact well. Minimum layer thickness 7 mm.

As antiskid coating

1st layer as primer (see above) and broadcast the wet primer with fire-dried aggregates. After drying, cleaning and brushing, a 2nd layer is applied with a consumption depending on the size of the aggregates.

As trowel floor with topcoat

1st layer as primer (see above) and broadcast the wet primer with 0.3-0.5 kg/m² quartz sand. After drying, cleaning and brushing, a 2nd layer of mortar is applied with a consumption of 2 kg/m²/mm. The total trowel mortar, consumption depends on the size of the aggregates. Add quartz flour and colored quartz sand to the created A + B mixture in a ratio of resin : filler weight ratio of 1 : 10. The final layer is the same as the primer is distributed with the wiper after pouring, with a consumption of 400-600 g/m².

As a heat-resistant layer or system under bituminous felts:**• As a primer**

Apply the prepared mixture, without fillers, with a consumption of approx. 500 g/m² and distribute with a squeegee. Followed by a roller or brush to spread evenly. Broadcast the wet primer with approx. 800 g/m² fire-dried quartz sand 0.2-0.8 mm.

• As a sealer

The 1st layer is applied as a primer with a lambskin roller or rubber squeegee applied with a consumption of approx. 500 g/m² up to saturation. The wet primer is full and saturated broadcasted with fire-dried quartz sand 0.7-1.2 mm with a consumption approx. 3.0-3.5 kg/m². After the 1st layer is cured, the excess and loose aggregates should be removed. The 2nd layer of EPISOL® UNIVERSAL (A+B) is applied with a lambskin roller or rubber squeegee with a consumption of approx. 600 g/m².

• As a scratch coat with quartz flour M4 and Rhine sand 0.2-0.8 mm

Add quartz flour M4 and Rhine sand 0.2-0.8 mm to the homogeneous mixed A + B components in a weight ratio resin : M4 : Rhine sand 0.2-0.8 mm from 1 : 1 : 1 to 1.5. Broadcasted the wet scratch coat with quartz/Rhine sand 0.7-1.25 mm or 1-2 mm full and saturated.

FINISHING

After 24 hours the EPISOL® UNIVERSAL can be overcoated with an epoxy or polyurethane synthetic resin system or floor.

APPLICATION CONDITIONS

Conditions during the application and curing of the products. The recommended processing temperature for substrate, environment, material and products is between +10 °C and +25 °C. Relative humidity: Max. 85%

Dew point: The temperature of the substrate and of the not fully cured product must be at least 3 °C higher than the dew point. Avoid condensation on the surface from the moment that the preparations start until the complete curing of the products. Ensure adequate ventilation and a low relative humidity during curing.

CLEANING AND MAINTENANCE

Clean the used tools with SOLVENT MEK before the curing of EPISOL® UNIVERSAL. Cured products residues must be removed mechanically. For cleaning and maintenance of the installed synthetic resin systems please refer to the information sheets:

Cleaning and maintenance of synthetic resin floor systems - INDUSTRY
Cleaning and maintenance of synthetic resin floor systems - PUBLIC AND PRIVATE BUILDINGS.

COMPLIMENTARY PRODUCTS

- Cleaning solvent: SOLVENT MEK
- Fire-dried fillers and aggregates:
Rhine sand/quartz sand 0.2-0.8 mm, 0.7-1.25 mm, 1-2 mm, quartz flour M4, white sand M32, ISGB1 sand.

ADVICE / FOCAL POINTS

EPISOL® UNIVERSAL must not be diluted.

When treating a new concrete surface with EPISOL® UNIVERSAL, it should be at least 28 days old.

TECHNICAL DATA**APPEARANCE - COMPOSITION**

A-component	Modified epoxy resins
B-component	Polyamine hardener
Colour	Transparent

REACTION TIMES

Response time as a primer: ± 30 minutes

Response time as a scrape layer, egaliser or mortar: ± 45 minutes

Dry: after 8 hours

Walkable: after 24 hour

Fully cured: after 8 days at 20 °C

Mechanically resistant: after 7 days.

Full chemical resistance: after 7 days

Times measured at 20 °C; lower temperatures extend the curing time.

CONSUMPTION**As a primer**

Depending on the roughness of the surface at a rate of 300 to 500 g/m².

As a scratch coat / levelling screed

+/- 1.5 to 1.6 kg/m²/mm

As a heat-resistant scratch coat under bituminous felts

1.7 to 1.8 kg/m²/mm

As a mortar

+/- 2 kg/dm³


TECHNICAL DATA

Density	A = 1.1 – B = 1.03 kg/dm ³
Mixing ratio	2 : 1
Viscosity at 20 °C	A = 1060 mPa.s B = 150 mPa.s A+B = 485 mPa.s
Shore D	75
Thermal shock resistance tested as primer, sealer and scratch coat according to TL/TP BEL-EP	250 °C with silicon oil
Dry component	100%

CHEMICAL RESISTANCES

Good chemical resistance to alkalis, petroleum derivatives, acid, diluted organic acids, salts and solutions. For more information please contact RESIPLAST NV.

CE MARKING

	
KORAC NV, Gulkenrodestraat 3, 2160 Wommelgem, Belgium	
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EN 13813	
Synthetic resin floor/coating for indoor use in buildings	
Release of corrosive substances	SR
Abrasion resistance	≤ AR0,5
Bond strength	≥ B2,0
Impact resistance	≥ IR10
Reaction to fire	E _{fl}

REFERENCE DOCUMENTS



In case of doubt, please contact RESIPLAST NV and state the batch number on the packaging. Do not discharge into groundwater, surface water of sewers. Dispose of contaminated packaging and residues in accordance with the applicable legal requirements.

SAFETY PRECAUTIONS

Carefully read the safety data sheets before using EPISOL® UNIVERSAL. Ensure adequate ventilation, keep away from sources of ignition and do not smoke. Avoid skin contact. Eye irritation and/or hypersensitivity may occur with severe vapour concentration, inhalation and/or skin contact.

Do not store food and or drinks in the same workspace. Always wear personal safety equipment in accordance with the applicable local guidelines and legislation. Gloves and safety glasses are mandatory.

PACKAGING

EPISOL® UNIVERSAL	Comp A	Comp B	Packaging
Set 15 kg	10 kg	5 kg	Plastic jerrycan
Set 24 kg	16 kg	8 kg	Metal pail
Set 600 kg	400 kg	200 kg	Drum
Set 3000 kg	2000 kg	1000 kg	IBC

Fillers and aggregates separately available:

Rhine sand 0.2-0.8 mm	25 kg	Bag
Rhine sand 0.7-1.25 mm	25 kg	Bag
Quartz meal M4	25 kg	Bag
White sand M32	25 kg	Bag
ISGB1 sand	25 kg	Bag

STORAGE AND SHELF LIFE

Store EPISOL® UNIVERSAL in a dry, well-ventilated storage area between +5 and +35 °C.

Shelf life: 24 months after production date.

The above information is provided in good faith, but without any guarantees. The application, use and processing of the products are beyond our control and are, as such, the sole responsibility of the user/processor. In the event that KorAC NV is still held liable for damages, then the claim will still be limited to the value of the goods delivered. We always aim to deliver consistently high quality goods. All values on this technical sheet are average values that result from tests carried out under laboratory conditions (20 °C and 50% RH). Values that are measured on the construction site may show a slight deviation since the environmental conditions, the application, and the way of processing our products are beyond our control. Do not add any products other than those indicated on the technical documentation. This version replaces all previous versions. Version 2.0 Date: 27 July 2023 8:49 am