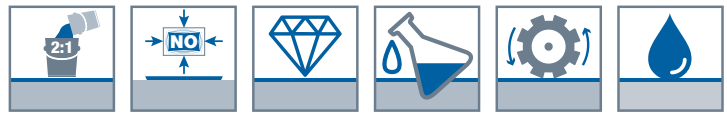
EPISOL® UNIVERSAL

UNIVERSAL EPOXY BINDER TO BE USED AS A PRIMER, EGALISER OR REPAIR MORTAR



DESCRIPTION

Universal 2 component epoxy resin. To be used as a primer or as a binder to make egaliser layers and epoxy mortars.

ADVANTAGES

- Simple mixing ratio 2:1
- Shrink-free reaction
- High hardness
- Good chemical and mechanical resistance
- Good stability during service life
- Easy to apply
- Can be overcoated with self-leveling smooth and anti-slip epoxy and polyurethane floor systems

FIELD OF APPLICATION

- Resin mortars for industrial floors with high mechanical and chemical load
- Primer applications
- Scrape and egaliser layer
- Repair mortar - to be applied horizontally
- Multi-layer broadcasted coating system

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.
Moisture content in the substrate: ≤ 5% moisture. Conditions during the application and curing: see "implementation conditions" further described in this technical data sheet.
Technically studied dilatation joints must be provided. These are resumed in the synthetic resin system to be installed.
The flatness of the surface must be consistent with the desired requirements. Should this not be the case, then correct measures have to be taken to fill in or smooth out the irregularities with products that are complementary to the substrate and to the coating 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 rpm)
- Squeegee, brush or 2 component paint roller suited for epoxy based products, spatula or trowel, depending on the application.
- Masking tape.

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:
Always apply the products on a clean surface, free from adhesion reducing materials such as dirt, oil, grease, old coatings or surface treatments, ...
The parts of the surfaces to be coated that do not meet the requirements as described above (compressive strength, tensile strength, parts that are not well connected, ...) must be treated or removed and repaired according to a correct method and with products that are complementary to the substrate and the synthetic resin system to be installed.
If you choose to work with a seamless plinth, use RESIPOX® PRIMER with RESIPOX® epoxy repair and plinth mortar.
Remove any loose parts by brushing properly and remove dust with an industrial vacuum cleaner.

PREPARATION OF THE PRODUCT

Mixing

Mix A en B components well before use.
Take two parts of resin (A-component) and add one part of hardener (B-component). Use a measuring cup or scale. Mix mechanically (300 rpm) until both components are homogeneous.
Small quantities can be mixed by hand. 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 A PRIMER

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

AS A SCRAPE LAYER / EGALISER
With EPISOL UNIVERSAL component C filler

Add EPISOL® UNIVERSAL Component C to the homogeneously mixed A + B components in a ratio resin/filler of 15 kg of resin on 25 kg of filler.

With HN34 (0,1-0,3) as component C filler

Add HN34 (0,1-0,3) component C to the prepared A+B mixture in a ratio resin/filler of 1 to 1 to 1,5.
Spread the mixture on the surface with a squeegee, toothed trowel or rake. Roll to deaerate with a spiked roller.

AS A MORTAR

With ISGB1 as component C filler

Add ISGB1 component C to the homogeneously mixed A+B Components in a ratio resin/filler of 15 kg to 100 kg.

With BR47 as component C filler

Add BR47 component C to the homogeneously mixed A + B components in a ratio resin/filler of 1 on 7 to 1 on 10.

The mortar is applied on a fresh, still wet primer layer (pure EPISOL® UNIVERSAL resin at a rate of 300 g/m²).
Distribute with the flat trowel and compact well. Minimum layer thickness 5 mm. The wear resistance can be increased by adding Corundum.

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
- Dry filler HN34 (0,1-0,3)
- Dry filler BR47
- Dry filler ISGB1

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
C-component	Filler
Colour	Ambre 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 scrape layer

Approx 1,5 to 1,6 kg/m²/mm

As a mortar

2 kg/dm³

TECHNICAL DATA

Density	A = 1,1 – B = 1,03 kg/dm³
Class AFNOR T 36005	1 – 6b
Mixing ratio	2 : 1
Viscosity at 20°C	A = 1060 mPa.s B = 150 mPa.s A+B = 485 mPa.s
Resistance mortar* Flex Compression	 28 MPa 66 MPa
Shore D	75
Heat resistance	60°C
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 TABLE

CE

Resiplast NV, Gulkenrodestraat 3, B-2160 Wommelgem
12
EN 13813
Resin screed/coating for use indoors in buildings.

Reaction to fire	E_{fl}
Release of corrosive substances	SR
Water permeability	NPD
Wear resistance (EN13892-4)	AR 0.5
Bonding strength (EN13892-8)	>B 2,0
Impact resistance (DIN EN ISO 6272)	>10 Nm
Soundproofing	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD

REFERENCE DOCUMENTS

bsi. ISO 9001:2015 Quality Management FM 78518
bsi. ISO 14001:2015 Environmental Management EMS 716699
REACH COMPLIANT

PACKAGING

EPISOL® UNIVERSAL	Comp A	Comp B	Comp C
Set 15 kg	10 kg	5 kg	
Set 30 kg	20 kg	10 kg	
Set 600 kg	400 kg	200 kg	
Bag EPISOL® UNIVERSAL (screed)			25 kg
Bag ISGB1 (mortar)			25 kg

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.

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 (food, 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.