

Epoxy universal resin for priming, anchorage and artificial resin mortar

Characteristics

HADALAN® EPUni 12E is a transparent epoxy resin with high bending tensile strength and compression strength.

Adheres well to almost all dry, clean substrates and is resistant to water, salt solutions, motor spirit, oils, greases and many other chemicals. Reaches 60% of final strength after 2 days.

- Solvent-free
- Transparent
- Low viscosity
- Chemical resistant
- All-purpose

Use

HADALAN® EPUni 12E for priming mineral substrates using a thick layer as protection against aggressive substances.

For anchoring machine parts on concrete and as a binder for epoxy resin mortar and epoxy resin coatings. In conjunction with hot air dried **Quartz0105 57M** as a polymer mortar for repair and coating work with high mechanical and chemical resistance.

By adding **HADALAN® FGM012 57M** fillings, liquid proof mortar coatings can be applied.

By adding **HADALAN® FGM003 57M** surface roughness can be smoothed out.

Application areas:

- Exterior and interior use
- Concrete, screeding, steel
- Traffic areas, workshops, warehouses, ramps, storage surfaces

Specifications

Packaging combi-pack	Metal container 24 kg/9 kg/3 kg
Component A, resin	16 kg/6 kg/2 kg
Component B, hardener	8 kg/3 kg/1 kg
Supplied	8/42/84 pack./pal.
Density viscosity	1.08 g/cm ³
Viscosity stirred	0.95 dPa·s
Working temperature	+10 °C to +30 °C
Working time ¹⁾	approx. 30 minutes
Rainproof ¹⁾	after approx. 6 hours
Fully cured ¹⁾ and loadable	after approx. 24 hours
Final strength	after approx. 7 days
Compressive strengths after adding HADALAN® FGM012 57M	
MR 1 : 8 parts	
after 24 hours	approx. 32 N/mm ²
after 5 days	approx. 94 N/mm ²
after 7 days	approx. 97 N/mm ²
MR 1 : 13 parts (liquid layer)	
after 24 hours	approx. 39 N/mm ²
after 4 days	approx. 88 N/mm ²
after 7 days	approx. 97 N/mm ²
MR 1 : 20 parts	
after 24 hours	approx. 14 N/mm ²
after 4 days	approx. 32 N/mm ²
after 7 days	approx. 34 N/mm ²
Storage	frost-free and cool, 12 months

The above figures may vary depending on the temperature conditions. The measurement data can thus only be used as guide.

Quantity required

Unfilled thick coatings	0,2 - 0,5 kg/m ²
As primer	0,2 - 0,4 kg/m ²

¹⁾ At +20 °C and 60 % relative humidity.

Preparation of the surface

The substrate must be firm, dry, clean, free from dust, absorbent, resilient, and free from release agents, corrosive components or other layers interfering with bonding. The substrate must be fundamentally suitable for the coating system. The surface tensile strength must not be less than 1.5 N/mm². The maximum substrate moisture content for cementitious substrates is < 4.0 CM%, anhydrite screeds: < 0.5 CM%.

The compression strength of the substrate must be at least 25 N/mm².

The substrate must be protected from rising and penetrating moisture. Prepare the floor surface through e.g. dust-free shot blasting, diamond grinding, milling or other suitable measures. The grain structure must be exposed and all separating substances and loose components must be consistently removed. Substrates in whose surface auxiliaries (waxes) for smoothing have been worked in must always be removed by milling and subsequent shot blasting. Compatibility with old coatings must be checked; non-load-bearing layers and coatings must be completely removed. Asphalt-containing screeds are difficult substrates due to their deformability under mechanical and thermal stress. For this reason, they can only be coated with special systems. Please contact our technical service section.

In the case of existing stuck tile coverings, the surface must be removed by diamond grinding or milling. Completely remove the glaze. All substrate preparations must be carried out by suitable specialist companies.

Application

The requirements of the relevant regulations and data sheets should be observed.

1. Stir the hardener (component B) into the resin (component A) using a slow running stirring tool so that it is homogenous and free of streaks

Mix ratio:

2 parts resin : 1 part hardener

2. After stirring repot the material into a clean container and mix through again briefly.
3. Use the material promptly. Priming the substrate surface can be done using a roller or rubber wiper. To ensure an even surface for sealing, apply the epoxy resin with a suitable textured roller. Apply with cross movements. Pauses during working can lead to scaling.
4. Clean tool immediately after use with **HADALAN® EPV 38L**. Hardened material can only be removed mechanically.

By adding up to 3 parts **HADALAN® FGM003 57M** a pourable filler can be made for levelling rough surfaces. The high binder excess means that priming is normally not necessary. Absorbent substrates should be primed; use a test surface as necessary. Self-levelling material needs to be de-aerated.

By adding **HADALAN® FGM012 57M**, high strength liquid proof coatings can be produced using a ratio of up to 1 part resin : 13 parts **HADALAN® FGM012 57M**.

1. Add **HADALAN® FGM012 57M** to the binder and mix thoroughly. For small quantities this can be done with the trowel, for larger amounts mix using a stirrer and whisk.
2. Working is done with a trowel and smoother. To produce a fillable liquid proof mortar, add 13 parts filler mix to 1 part binder. This mix is applied fresh on fresh to the substrate surface previously primed with binder and then carefully compacted. Highly filled mortars are no longer liquid proof. Mortar mixes of 1 part binder and 20 parts filler mix still achieve strengths of up to 35 N/mm² when properly compacted.

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HADALAN® FGM003 57M

HADALAN® FGM012 57M

HADALAN® EPV 38L

Quartz051 57M

Important notes

- Keep to a working temperature of between +10 °C and +30 °C.
- Since humidity has a strong effect on the hardening of the resin, the additives to be used must be dry.
- When mixed, use the material quickly. The material cures quicker in the container (exothermic reaction). You can work longer with material which has been poured out.
- High temperatures accelerate, low temperatures slow the solidification process.
- The surface temperature during working must be at least 3 °C above the dew point.
- In the case of multilayer coating the next coat must be applied within 24 hours.

Ingredients

Epoxy resin, epoxy hardener, additives

Safety provisions/recommendations

Detailed information on safe transport, storage and handling can be found in the current safety data sheets.

Disposal

The local waste removal regulations must be observed.

Manufacturer

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