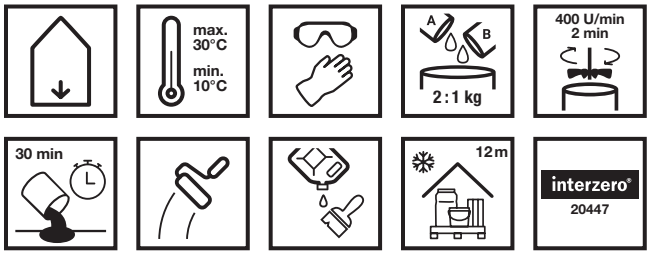
HADALAN® EPUni 12E

Universal epoxy resin for priming, anchoring and synthetic resin mortar



These pictograms apply to the **basic product**.
Deviations are possible depending on the area of application and processing.

PRODUCT INFORMATION

Description

- HADALAN® EPUni 12E is a transparent epoxy resin with high flexural and compressive strength. It adheres well to almost all dry and clean substrates and is resistant to water, salt solutions, petrol, oils, greases and many other chemicals. It reaches approx. 60 % of its final strength after 2 days.

Application

- as a primer for mineral substrates
- thick coating for protection against aggressive substances
- for anchoring machine parts to concrete and as a binder for synthetic resin mortars and synthetic resin coatings
- in combination with hot-air-dried Quartz0105 57M as a plastic mortar for repair and coating work with high mechanical and chemical resistance
- for the production of liquid-tight fillings and mortar coatings by adding HADALAN FGM012 57M
- for creating surface roughness by adding HADALAN FGM003 57M

Operational area

- Multifunctional use as primer and synthetic resin mortar
- Concrete, screed, steel
- Driving areas, workshops, warehouses, ramps, storage areas

Properties

- solvent-free
- transparent
- low viscosity
- chemical resistant
- universal use

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Technical Data

Available container sizes	24 kg/set (sheet metal bucket/sheet metal bucket) 9 kg/combination container 3 kg/combination container
Component A	16 kg / 6 kg / 2 kg resin
Component B	8 kg / 3 kg / 1 kg hardener
Density, ready to use	approx. 1.08 kg/l
Mixing viscosity	approx. 0.95 dPa*s
Processing temperature	+10°C to +30°C
Processing time	approx. 30 minutes
Rain resistance	after approx. 6 hours [1)]
Resilience	fully cured and loadable after approx. 24 hours, final strength after approx. 7 days[1)]
Compressive strength	approx. 97 N/mm² with HADALAN FGM012 57M (MV 1 : 13)
Storage	frost-free and cool, 12 months
Consumption	approx. 0.2 – 0.4 kg/m² as primer approx. 0.2 – 0.5 kg/m² as unfilled thick coat

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

Chemical resistance* based on DIN EN 13529

Test medium	Resistance over a period of: 24 hours	4 days	7 days	15 days	32 days
Acetic acid 10 %					
Sodium hydroxide 20 %					
Ethanol/IPA 1:1					
White spirit					
Xylene					
Hydrochloric acid 20 %					
Sulphuric acid 20 %					
Diesel oil					
Skydrol					

*The chemical resistance depends on the concentration, the temperature and the exposure time. Soiling must be removed immediately.
Even with positive chemical resistance, changes to the surface, such as loss of gloss or discolouration, may occur. However, this does not affect the functionality of the material used.

SUBSTRATE

Properties/tests

- The substrate must be dry, load-bearing, clean, dust-free and free of adhesion-reducing residues, release agents, efflorescence and sintered coatings.
- In principle, the substrate must be suitable for the coating system.
- The adhesive tensile strength of the substrate must be at least 1.5 N/mm².
- The compressive strength of the substrate should be at least 25 N/mm².
- The substrate moisture content for cementitious substrates must be < 4.0 CM%, anhydrite screeds: < 0.5 CM%.
- The substrate must be protected against rising and penetrating moisture.

Preparation

- The floor surface must be prepared by 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 removed thoroughly. Substrates whose surfaces have been treated with smoothing agents (waxes) 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. They can therefore only be coated with special systems. Please contact our technical service for more information.
- In the case of existing fixed tile coverings, the surface must be removed by diamond grinding or milling. The glaze must be completely removed.
- All substrate preparations must be carried out by suitable specialist companies.

AREAS OF APPLICATION AND PROCESSING

Applying

- Stir the hardener (component B) into the resin (component A) homogeneously and without streaks using a slow-running stirring tool. Mixing ratio: 2 GT resin : 1 GT hardener.
- After mixing, pour the material into a clean container and mix again briefly.
- Apply the material quickly. The substrate can be primed using a roller or rubber wiper. To achieve even surfaces when sealing, apply with a suitable short pile roller for epoxy resins. The application is carried out crosswise. Waiting times during application can lead to build-up.
- By adding up to 3 parts HADALAN FGM003 57M, a flowable filler can be produced to even out the surface roughness. Due to the high excess binder content, priming is generally not necessary. Absorbent substrates must be primed, if necessary create a test surface. Levelling compounds must be deaerated.
- By adding HADALAN FGM012 57M, high-strength and with a mixing ratio of up to 1 GT resin : 13 GT –HADALAN FGM012 57M liquid-tight coverings can be created. Add HADALAN FGM012 57M to the mixed binder and mix thoroughly. Smaller quantities can be mixed with a trowel, larger quantities with an agitator. Work with a trowel and smoothing trowel. To achieve a trowelable, liquid-tight mortar, add 13 GT of filler mixture to 1 GT of binder. This mixture is applied fresh-on-fresh to the substrate previously primed with binder and then carefully compacted; mortars filled to a higher level are no longer liquid-tight. Mortar mixtures of 1 GT binder and 20 GT filler mixture still achieve strengths of up to 35 N/mm² when properly compacted.

NOTES

Cleaning

- Clean tools immediately after use with HADALAN EPV 38L.
- Hardened material can only be removed mechanically.

System products

- HADALAN® FGM003 57M
- HADALAN® FGM012 57M
- HADALAN® EPV 38L
- Quartz051 57M

To be observed

- Maintain a processing temperature of +10 °C to +30 °C.
- As moisture greatly impairs the hardening of the resin, the aggregates to be used must be dry.
- Process mixed material quickly. Material cross-links faster in the container (exothermic reaction). Poured material can be applied for longer.
- High temperatures accelerate, low temperatures delay the solidification and curing process.
- The substrate temperature must be at least 3 °C above the dew point temperature during application and curing.
- When applying multiple coats, the next coat must be applied within 24 hours.

Ingredients

- Epoxy resin, Epoxy hardener
- Additives

Occupational safety / Recommendation

- Comprehensive instructions can be found in the DGUV Regulation 113-012 (previously BG regulations 227) “Activities with epoxy resins” issued by the trade associations. Further information on safety during transportation, storage and handling can be found in the current safety data sheets.

Disposal

- The following applies to all systems: Only return empty containers to recycling partner Interseroh. Cured material residues can be disposed of in accordance with EWC code no. 08 01 11 (paint and varnish waste containing organic solvents or other hazardous substances).

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The statements are made based on extensive tests and practical experiences. They cannot be applied to every application case. Therefore, we recommend carrying out application trials if necessary. Subject to technical changes in the course of further development. Furthermore, our General Terms and Conditions of Business apply.