

# RECKLI<sup>®</sup> Flooring Resin EP

RECKLI Flooring Resin EP

Product 07112

Edition 01/23

**modified epoxy resin**

## PROPERTIES

RECKLI Flooring Resin EP is a transparent, solvent-free, low-viscous two-component epoxy resin. On exposure to direct sunlight or UV irradiation, the resin is gradually yellowing; however, without degradation of mechanical properties.

## APPLICATIONS

RECKLI Flooring Resin EP can be used as a binder for the manufacture of synthetic resin screeds or scratch coats. Its low viscosity allows an easy processing and a high laying performance.

Mixtures of RECKLI Flooring Resin EP with appropriate fillers and additives yield screeds that are impervious to fluids. For this purpose, the recommended resin content is 10 – 12 % (by weight). Only use oven-dry fillers, such as sand, gravel, corundum- or basalt-grainings or, likewise, quartz-, chalk- or marble powder.

Furthermore, RECKLI Flooring Resin EP is suitable as an adhesive primer with a good penetration of the substrate. For this purpose, RECKLI Flooring Resin EP without fillers is generously applied by brush or by roller. To ensure a good bonding, proceed wet-on-wet or sprinkle oven-dry quartz sand on the wet coat, making sure it is completely covered. Excess material must be thoroughly swept off or vacuumed the following day.

## TECHNICAL DATA

| property                                    | value                     | method                |
|---|---------------------------|-----------------------|
| mixing ratio (base : hardener):             | 3 : 1                     | (according to weight) |
| workable temperature:                       | +10 °C – +30 °C           |                       |
| viscosity of the mixture:                   | approx. 350 mPa·s         | ISO 2555              |
| pot life (200-g-mixture at +21 °C):         | approx. 40 – 50 min       |                       |
| full chemical and mechanical loading after: | 10 – 12 days              |                       |
| density:                                    | 1,1 g/cm <sup>3</sup>     |                       |
| hardness:                                   | approx. 73 Shore D        | DIN 53505             |
| ball impression hardness:                   | 50 – 55 N/mm <sup>2</sup> | DIN 53456             |
| dimensional stability under heat:           | 40 °C                     | DIN 53462             |
| heat resistance (dry heat):                 | +100 °C                   |                       |
| appearance:                                 | transparent               |                       |

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| hardening progress<br>at 21° C | Shore D<br>DIN 53505 | ball impression hardness<br>DIN 53456 |
|--------------------------------|----------------------|---------------------------------------|
| after 1 day                    | not measurable       | not measurable                        |
| after 3 days                   | 63                   | 20                                    |
| after 7 days                   | 72                   | 47                                    |
| after 14 days                  | 74                   | 53                                    |

These data are typical guide values. They are not destined for the generation of specifications.

## GUIDE FORMULATIONS

A liquid-tight screed with the composition:

- 8,0 kg oven-dry sand (0 – 3 mm)
- 0,8 kg chalk powder ( $d_{50} = 5,5 \mu\text{m}$ )
- 1,2 kg RECKLI Flooring Resin EP

yields the following mechanical properties:

|                      |                        |           |
|----------------------|------------------------|-----------|
| compressive strength | 48 N/mm <sup>2</sup>   | DIN 53454 |
| flexural strength    | 36 N/mm <sup>2</sup>   | DIN 53452 |
| density              | 2,04 g/cm <sup>3</sup> |           |

Values of compressive strength and flexural strength of mixings with other fillers, according to DIN 53454 or, respectively, DIN 53452, can be established with the filler expected to be used by our laboratory.

## SURFACE PREPARATION

For coatings or adhesions, the substrate must be stable, sound, dry, clean and free of oil, grease or wax.

## PROCESSING

Add the hardener (B) to the base component (A) and mix them homogenously. Transfer the mixture into a second receptacle and stir it up again. Thereby the incorporation of larger amounts of air should be avoided. Fillers should be preferably added to the mixture rather than to the base component before mixing. Once mixed, the processing of the material must be completed within the pot life (40 – 50 minutes). Mixing larger quantities decreases the processing time.

## CLEANING OF EQUIPMENT

For the cleaning of the tools and the equipment, use dry, absorbing cloths, if necessary RECKLI Epoxy Cleanser in addition. Immersion in solvents is not sufficient.

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## PACKAGING SIZES

pair of canisters: 8 kg;  
double can: 0,8 kg (the hardener is enclosed in the lid).

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## STORAGE

Store in a dry place at room temperature. RECKLI Flooring Resin EP is storable for 6 months from delivery when kept in the closed original packaging at about 18 °C. Opened drums must be closed airtight right after use.

## SPECIAL REMARKS

Storage at low temperatures may cause partial crystallisation of the base component, even if only parts of the container are exposed to cold. In this case, the material can be melted in the closed container at 40 – 50 °C. When mixed up, it is usable again.

## GENERAL INFORMATION

For further information please also see:

„General advice for the processing of RECKLI two-component resins“.

## SAFETY

Protect skin and eyes from material splashes. Provide sufficient ventilation in the working place. Please consult the relevant safety data sheet and attend to the indications on the label of the package regarding the Dangerous Goods Regulation. This pamphlet is intended solely as an application directive. It does not claim to be binding and valid for all modes of application. A preliminary test under operation conditions is highly recommended.

This pamphlet replaces all previously published pamphlets concerning RECKLI Flooring Resin EP, stating them as no longer being valid.

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## CHEMICAL RESISTANCE

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In order to estimate the stability towards certain chemicals, the increase or loss of weight of a sample has been determined after prolonged immersion in the relevant medium. The data stated below refer to the assumption of chemical stability being represented by a change of weight of less than 2 % after 28 days. According to the application's characteristics, the decisive criterion might have to be set differently.

| test medium                 | change of weight (%) |               | resistant |
|-----------------------------|----------------------|---------------|-----------|
|                             | after 7 days         | after 28 days |           |
| ammonia solution (25%)      | + 0,57               | + 2,61        | no        |
| ammonium carbonate (5%)     | + 0,46               | + 1,32        | yes       |
| ammonium chloride (5%)      | + 0,30               | + 0,62        | yes       |
| apple juice                 | + 0,38               | + 1,27        | yes       |
| brake fluid                 | + 0,12               | + 0,41        | yes       |
| calcium chloride (5%)       | + 0,33               | + 0,95        | yes       |
| citric acid (5%)            | + 0,43               | + 1,09        | yes       |
| dichloromethane             | decomposition        |               | no        |
| edible oil                  | + 0,07               | + 0,10        | yes       |
| engine oil (HD oil)         | + 0,12               | + 0,13        | yes       |
| gasoline / premium-unleaded | + 1,59               | + 4,10        | no        |
| hydrochloric acid (10%)     | + 0,67               | + 1,44        | yes       |
| hydrochloric acid (37%)     | + 7,48               | + 17,70       | no        |
| isopropanol                 | +/- 0,00             | + 1,43        | yes       |
| orange juice                | + 0,40               | + 1,61        | yes       |
| phosphoric acid (10%)       | + 1,75               | + 3,99        | no        |
| phosphoric acid (50%)       | + 4,84               | + 11,81       | no        |
| potassium carbonate (5%)    | + 0,36               | + 0,97        | yes       |
| potassium chloride (5%)     | + 0,30               | + 0,89        | yes       |
| sodium carbonate (5%)       | + 0,30               | + 0,59        | yes       |
| sodium chloride (5%)        | + 0,32               | + 0,86        | yes       |
| sodium hydroxide (5%)       | + 0,31               | + 0,85        | yes       |
| sodium hydroxide (30%)      | + 0,01               | + 0,10        | yes       |
| sulfuric acid (10%)         | + 1,08               | + 2,34        | no        |
| sulfuric acid (38%)         | + 1,32               | + 2,95        | no        |
| tartaric acid (5%)          | + 0,49               | + 1,23        | yes       |
| water/tap water             | + 2,92               | + 1,02        | yes       |
| white spirit                | - 0,05               | + 0,03        | yes       |
| wine vinegar (5%)           | + 2,35               | + 5,38        | no        |
| xylene                      | + 0,23               | + 5,62        | no        |

(temperature: 21 °C; sample dimensions: 10 mm × 15 mm × 120 mm)

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