

RECKLI® Construction Resin EP

modified epoxy resin

PROPERTIES

RECKLI Construction Resin EP is a transparent, solvent-free, liquid two-component epoxy resin with a practical mixing ratio of 2 : 1 (according to weight). On exposure to direct sunlight or UV irradiation, the resin is gradually yellowing; however, without degradation of mechanical properties.

With almost the same characteristics and suitable for applications at low temperatures or with shortened curing time, also RECKLI Construction Resin EP rapid is available.

APPLICATIONS

RECKLI Construction Resin EP can be used for the manufacture of coatings, mortars or fillers with excellent adhesion to conventional substrates. For this purpose it can be mixed with various oven-dry fillers in the appropriate ratio. A particular area of application is the manufacture of decorative floorings with colored quartz grainings, for example in offices, stores or sales and exhibition rooms. For the application as adhesive primer with a good penetration of the substrate, use RECKLI Construction Resin EP without fillers.

TECHNICAL DATA

property	value	method
mixing ratio (base : hardener):	2 : 1	(according to weight)
workable temperature:	+50 °F – +22 °F	
viscosity of base component:	approx. 1000 mPa·s	ISO 2555
pot life (200-g-mixture at +70 °F):	approx. 40 – 50 min	
earliest loading (at +70 °F):	24 h	
full chemical and mechanical loading after:	10 – 14 days	
density:	1.15 g/cm ³	
hardness:	70 – 75 Shore D	DIN 53505
ball impression hardness:	70 – 75 N/mm ²	DIN 53456
heat resistance (dry heat):	+212 °F	
dimensional stability under heat:	104 °F	DIN 53462

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

Values of compressive strength and flexural strength of mixings with quartz sand, according to DIN 53454 or, respectively, DIN 53452, are available on request or 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 thoroughly. Transfer the mixture into a second container and stir it up again. This will ensure large amounts of air are 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.

PACKAGING SIZES

pair of canisters: 33 lbs | 16.5 lbs;

double can: 1.7 lbs (the hardener is enclosed in the lid).

STORAGE

Store in a dry place at room temperature. RECKLI Construction Resin EP is storable for 6 months from delivery when kept in the closed original packaging at about 64.4 °F. Opened drums must be closed airtight right after use.

SPECIAL REMARKS

Storage at low temperatures may cause partial crystallization 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 104 – 122 °F. 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 Construction Resin EP, stating them as no longer being valid.

APPENDIX

CHEMICAL RESISTANCE

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%)	+ 0.75	+ 2.05	no
ammonium carbonate (5%)	+ 0.49	+ 1.40	yes
ammonium chloride (5%)	+ 0.36	+ 1.06	yes
apple juice	+ 0.51	+ 1.55	yes
brake fluid	+ 0.18	+ 0.21	yes
calcium chloride (5%)	+ 0.41	+ 1.16	yes
citric acid (5%)	+ 0.51	+ 1.30	yes
dichloromethane	decomposition		no
edible oil	+ 0.18	+ 0.30	yes
engine oil (HD oil)	+ 0.16	+ 0.25	yes
gasoline / premium-unleaded	+ 0.46	+ 1.40	yes
hydrochloric acid (10%)	+ 0.85	+ 1.98	yes
hydrochloric acid (37%)	+ 6.30	+ 14.72	no
isopropanol	- 0.06	+ 0.25	yes
orange juice	+ 0.39	+ 1.90	yes
phosphoric acid (10%)	+ 2.17	+ 5.18	no
phosphoric acid (50%)	+ 4.06	+ 9.67	no
potassium carbonate (5%)	+ 0.50	+ 1.30	yes
potassium chloride (5%)	+ 0.43	+ 1.14	yes
sodium carbonate (5%)	+ 0.39	+ 1.00	yes
sodium chloride (5%)	+ 0.42	+ 1.05	yes
sodium hydroxide (5%)	+ 0.39	+ 1.05	yes
sodium hydroxide (30%)	+ 0.03	+ 0.12	yes
sulfuric acid (10%)	+ 1.52	+ 3.50	no
sulfuric acid (38%)	+ 1.35	+ 3.19	no
tartaric acid (5%)	+ 0.70	+ 1.78	yes
water/tap water	+ 0.45	+ 1.23	yes
white spirit	- 0.04	- 0.02	yes
wine vinegar (5%)	+ 3.35	+ 8.25	no
xylene	+ 0.01	+ 0.11	yes

(temperature: 70 °F; sample dimensions: 10 mm × 15 mm × 120 mm)