AH 140 / LI 20-1

Technical Datasheet

Unfilled epoxy resin

Product is available in combination with alternative hardeners

Applications

Vacuum infusion of carbon and glass fiber fabrics
Hand lay-up laminates of carbon and glass fiber fabrics

Properties

mixed viscosity	500 mPas
heat resistance	91 °C
unfilled	

Processing data

Product		**Mixture**	**Resin**	**Hardener**
		AH 140 / LI 20-1	AH 140	LI 20-1
Colour		yellowish-transparent	transparent	yellowish-transparent
Mixing ratio	**p.b.w.**		100	35
Viscosity at 25 °C	mPas	500 ± 100	950 ± 150	60 ± 10
Density at 20 °C	g/cm³	1,09 ± 0,02	1,17 ± 0,02	0,90 ± 0,03
Pot Life	minutes	18 - 22		
Demoulding time	hours	16 - 24		

Physical data

Properties	**Inspect. Requirements**	**Unit**	**Value**
Flexural strength	DIN EN ISO 178*	MPa	123 ± 10
Flexural elongation at break	DIN EN ISO 178*	%	6,7 ± 0,2
Flexural modulus	DIN EN ISO 178*	MPa	3320 ± 250
Compressive strength	DIN EN ISO 604*	MPa	91 ± 5
Impact resistance (Charpy)	DIN EN ISO 179-1*	kJ/m²	51 ± 19
Heat deflection temperature HDT	DIN EN ISO 75 B*	°C	91 ± 3
Glass transition TG	DSC	°C	≈ 83
Shore hardness	DIN ISO 48-4*	Shore D	87 ± 3

* based on

Sales units (packages)

AH 140 transparent resin 5 kg can
AH 140 transparent resin 10 kg can
AH 140 transparent resin 25 kg can
AH 140 transparent resin 50 kg drum
LI 20-1 yellow transparent hardener 3,500 kg
LI 120-1 yellow transparent hardener 25 kg
additional products
LI 130-2 yellow transparent 3,500 kg can
LI 130-2 yellow transparent 25 kg can
cleaning agent ebaclean, colourless 5 l can

Processing instructions

Material- and processing temperature: between 18 - 25 °C.
Close containers after use.

The mixing ratio of resin and hardener must be adhered to according to the specifications.

For bubble-free mixing, we recommend our star stirrer.

Resin residues on stirring rods, etc., can be easily cleaned with ebaclean.

General

AH 140 is a low-viscosity, unfilled epoxy resin

Depending on the intended application, various hardeners can be used, e.g.:

• AH 140 / LI 20 - 1: Laminating resin for thin, high-strength laminates
• AH 140 / LI 130 - 2: Laminating resin for large-area, high-strength laminates

The hardeners LI 20-1 and LI 130-2 are mixable with one another, meaning pot lives can be adjusted between approx. 20 mins and approx. 130 mins. See the separate mixing table for details

All specified properties were determined under the following thermal conditioning:

4 h at 60 °C + 6 h at 80 °C + 4 h at 120 °C

Storing

Storage at room temperature 18-25 °C.

Opened containers should be closed immediately after use and should be used up as soon as possible.

Please refer to the product labels for the shelf life of the material.

Safety measure

Please follow the precaution instructions of the Government Safety Organisation of the chemical industry when working with this material.

Please refer to the respective safety data sheets

Waste Disposal

The cured materials can be disposed of as household or commercial waste in consultation with the respective competent authority.

Uncured products must be properly disposed of in consultation with the competent authority.

For further questions, our product safety department is at your disposal.

Compliance & Legal

The information and recommendations provided are based on careful evaluation and practical experience. They reflect the state of our knowledge at the time of provision. Updates may be made without notice.
The information is intended as general guidance and does not constitute a warranty of specific characteristics or properties of the product. Due to the wide range of potential applications and processing methods, not all individual use cases can be covered.
The product must be used in accordance with the applicable safety and usage instructions. No liability will be accepted for improper use or application outside the intended purpose.
Unless otherwise agreed, it is the responsibility of the user to independently assess the suitability of the product for the intended application and processing method.
The information provided does not release the user from the obligation to seek individual advice in cases of uncertainty regarding specific applications.
Statutory warranty rights remain unaffected.