

Basis	temperature resistant laminating resin
Resin	AH 140
Hardener	TC 90-2
Colour	yellowish transparent
Further hardeners	TC 60

Applications

- Hand laminating
- Vacuum infusion
- carbon fibre sight laminates
- Laminates for boatbuilding
- Laminates for automotive industry
- Laminates for aeronautic

Properties

- unfilled
- very low viscosity
- long pof life
- high heat resistance
- high strength
- excellent wet-out characteristics

Processing data

Product		Mixture AH 140 / TC 90-2	Resin AH 140	Hardener TC 90-2
Colour		yellowish transparent	transparent	yellowish transparent
Mixing ratio	p. b. w.		100	32
Viscosity at 25°C	mPas	425 ± 75	800 ± 100	35 ± 5
Density at 20°C	g / cm ³	1,12 ± 0,02	1,17 ± 0,02	1,05 ± 0,02
Pot life 200 g / 20°C	min.	90 - 105	-	-
Curing time at RT	hrs.	48 - 72	-	-
Post curing	Time in h/ Temperature in °C	4 - 6 / 60 5 - 6 / 80 4 / 120 (*)	-	-

Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	130 ± 10
Flexural elongation at break	EN ISO 178	%	6,5 ± 0,2
Flexural modulus	EN ISO 178	MPa	3000 ± 300
Impact resistance (Charpy)	EN ISO 179	kJ/m ²	55 ± 10
Compressive strength	EN ISO 604	MPa	115 ± 10
Shore hardness	DIN ISO 7619-1	Shore D	87 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	110 ± 3 (*) 100 ± 3 / at 8 h 80°C
TG in TMA T _g	Methode TMA	°C	114

Sales units (packages)

Units	Resin hardener	AH 140 TC 90-2	5,000 kg / 10,000 kg / 25,000 kg / 50,000 kg / 220,000 kg 1,600 kg / 5,000 kg
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Processing instructions

The material and processing temperature should be between 18 and 25 °C.

The resin and hardener should be mixed intensively and as free of bubbles as possible at room temperature.

A heating rate of approx. 5 - 10 °C/hour is optimal. For difficult geometries, the use of a support mould is recommended.

The cooling rate should ideally be approx. 20 °C /hour.

In General

ebalta AH 140 is a low viscosity unfilled epoxy resin with high strength values and high dimensional stability, with appropriate hardeners even at elevated temperatures.

Due to its good impregnating and wetting properties, **ebalta** AH 140/ TC 90 is also suitable as infusion and laminating resin for large high-strength components or tools with fabrics made of glass or carbon fibres. Due to its low viscosity, the system is also suitable for large-area infusion parts where higher temperature resistance is required.

For laminates, a heat treatment is strongly recommended, if possible before demoulding.

Storing

In temperature-controlled rooms at 18 - 25°C

Crystallisation occurring under unfavourable storage conditions can be reversed by heating to approx. 60 °C for some hours.

Always reseal opened containers immediately in a moisture-proof manner and use as soon as possible.

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

Safety measure

When processing this product, the protective measures recommended by the Employers' Liability Insurance Association of the Chemical Industry should be observed. Follow safety advice.

Waste Disposal

The cured materials can be disposed of as domestic or industrial waste after consultation with the relevant authorities.

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

The instructions and recommendations are given in good faith and are based on long experience and careful tests. Since the conditions of use are beyond our control, and due to versatility of applications and working methods, we can't give any guarantee. All information are non-binding and are no guarantee for special characteristics or properties of the product. Despite information given from **ebalta** the customer has to make his own tests regarding applications and processing. If any special warranty is requested, written agreement on this subject is essential.