

Basis	high strength general purpose resin
Resin	AH 110
Hardener	TGS
Colour	yellowish transparent
Further hardeners	TGL / TG / GL / D / TL-1

Applications

- Laminating resin
- Binding resin for fillers
- Laminating resin for smaller laminates

Properties

- high strength
- high heat resistance
- quick curing
- unfilled
- medium viscosity

Processing data

Product		Mixture AH 110 / TGS	Resin AH 110	Hardener TGS
Colour		yellowish transparent	yellowish transparent	yellowish transparent
Mixing ratio	p. b. w.		100	22
Viscosity at 25°C	mPas	1300 ± 200	1850 ± 350	320 ± 75
Density at 20°C	g / cm ³	1,13 ± 0,02	1,17 ± 0,02	0,96 ± 0,02
Pot life 200 g / 20°C	min.	20 - 25	-	-
Curing time at RT	hrs.	6 - 8	-	-
Post curing	Time in h/ Temperature in °C	12 / 80	-	-

Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	128 ± 10
Flexural elongation at break	EN ISO 178	%	6,0 ± 1,0
Flexural modulus	EN ISO 178	MPa	3300 ± 300
Flexural elongation at break	ISO 37	%	-
Impact resistance (Charpy)	EN ISO 179	kJ/m ²	20 ± 8
Compressive strength	EN ISO 604	MPa	110 ± 10
Shore hardness	DIN ISO 7619-1	Shore D	86 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	99 ± 3
Glass transition temperature T _g	DSC	°C	97
Coefficient of thermal expansion	internal test / Dilatometer	10 ⁻⁶ K ⁻¹	-
Linear shrinkage	internal	%	-

Sales units (packages)

Units	Resin	AH 110	5,000 kg / 10,000 kg / 50,000 kg / 220,000 kg
	Hardener	TGS	1,000 kg / 2,000 Kg / 5,000 kg / 50,000 kg

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 110 is an unfilled epoxy resin with high strength values and high dimensional stability, with appropriate hardeners even at elevated temperatures. The appropriate hardener is selected depending on the intended use.

AH 110 can be used as a casting resin with powdered fillers such as aluminium powder, as a laminating resin with glass fabrics and as a binding resin with granular fillers such as aluminium grit.

With a high degree of filling, a casting thickness of 60 - 80 mm is possible with the appropriate hardeners.

AH 110/TGS is suitable as a laminating resin for thin, high-strength laminates.

Heat treatment

A heat treatment is recommended after curing at room temperature if increased demands are made on the temperature resistance and mechanical strength.

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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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.

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.