

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

## Applications

- Laminating resin even for heavy fabrics
- Binding resin for fillers

## Properties

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

## Processing data

Product		Mixture AH 110 / TGL	Resin AH 110	Hardener TGL
Colour		yellowish transparent	yellowish transparent	yellowish transparent
<b>Mixing ratio</b>	<b>p. b. w.</b>		<b>100</b>	<b>22</b>
Viscosity at 25°C	mPas	1000 ± 150	2000 ± 300	100 ± 20
Density at 20°C	g / cm <sup>3</sup>	1,13 ± 0,02	1,17 ± 0,02	0,96 ± 0,01
Pot life 200 g / 20°C	min.	55 - 65	-	-
Curing time at RT	hrs.	15 - 18	-	-
Post curing	Time in h/ Temperature in °C	12 / 80	-	-

## Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	135 ± 10
Flexural elongation at break	EN ISO 178	%	6,3 ± 0,7
Flexural modulus	EN ISO 178	MPa	3300 ± 300
Flexural elongation at break	ISO 37	%	-
Impact resistance (Charpy)	EN ISO 179	kJ/m <sup>2</sup>	16 ± 8
Compressive strength	EN ISO 604	MPa	115 ± 10
Shore hardness	DIN ISO 7619-1	Shore D	85 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	101 ± 3
Glass transition temperature T <sub>g</sub>	DSC	°C	approx. 102
Coefficient of thermal expansion	internal test / Dilatometer	10 <sup>-6</sup> K <sup>-1</sup>	-
Linear shrinkage	internal	%	-

## Sales units (packages)

Units	Resin AH 110 hardener TGL	5,000 kg / 10,000 kg / 50,000 kg / 220,000 kg 1 kg / 2,5 kg / 5 kg / 25 kg / 50 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 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.

This resin/hardener mixture has a relatively low viscosity and is able to absorb a lot of powdery fillers. At the same time, good castability is maintained.

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

AH 110/TGL is suitable as a laminating resin for large laminates in the temperature range up to 100° C.

### 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.