

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

Applications

- Laminating resin also for heavy fabrics
- Bonding resin for fillers

Properties

- high strength
- high heat resistance
- fast 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	2000 ± 300	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
Heat resistance (HDT)	DIN EN ISO 75 B	°C	99 ± 3
Glass transition temperature TG	method DSC	°C	97
Shore hardness	DIN ISO 7619-1	Shore D	86 ± 3
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 temperature of material and processing should be between 18 and 25° C.

The mixing of resin and hardener should be made intensively and if possible without any bubbles at room temperature.

We recommend a post curing with a temperature rise of about 10°C/hour. Difficult geometries should be supported during the curing cycle. Afterwards the part should be cooled down at about 20°C/hour.

In General

AH 110 is a non-filled epoxy resin with high strength and dimensional stability, even at increasing temperature.

It also can be used as casting resin with powder fillers as aluminium powder, as laminating resin with glass fabrics and as binding resin with granular fillers as aluminium granules.

Depending on the application it just needs to use a different hardener for the mixture.

As laminating resin AH 110 / TGS is suitable for thin high solid laminates.

Storing

At appropriate storage 18-25°C.

Occurring crystallization due to disadvantageous storage conditions can be made return by warming up the material at approx. 60° C for some hours.

Opened containers should be closed immediately after use and be protected against moisture. This material should be used up as soon as possible.

Shelf life is indicated on the labels

Safety measure

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

Waste Disposal

According to arrangement with local authorities cured material can be disposed as domestic or commercial waste.

Non-cured products are waste which is subject to inspection and has to be disposed accordingly.

In case of further questions please do not hesitate to contact our Department for Product Safety.

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.