

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

## Applications

- Laminating resin for fabrics
- Bonding resin for fillers

## Properties

- unfilled
- high strength
- nearly odourless

## Processing data

| Product               |                                 | Mixture<br>AH 110 / GL | Resin<br>AH 110       | Hardener<br>GL |
|-----------------------|---------------------------------|------------------------|-----------------------|----------------|
| Colour                |                                 | yellowish transparent  | yellowish transparent | yellow clear   |
| <b>Mixing ratio</b>   | <b>p. b. w.</b>                 |                        | <b>100</b>            | <b>32</b>      |
| Viscosity at 25°C     | mPas                            | 1450 ± 150             | 2000 ± 300            | 750 ± 150      |
| Density at 20°C       | g / cm <sup>3</sup>             | 1,13 ± 0,02            | 1,17 ± 0,02           | 1,00 ± 0,02    |
| Pot life 200 g / 20°C | min.                            | 40 - 50                | -                     | -              |
| Curing time at RT     | hrs.                            | 12 - 14                | -                     | -              |
| Post curing           | Time in h/<br>Temperature in °C | -                      | -                     | -              |

## Physical data

| Properties                       | Inspect. requirem.             | Unit                             | Value      |
|----------------------------------|--------------------------------|----------------------------------|------------|
| Flexural strength                | EN ISO 178                     | MPa                              | 135 ± 10   |
| Flexural elongation at break     | EN ISO 178                     | %                                | 6,0 ± 0,5  |
| Flexural modulus                 | EN ISO 178                     | MPa                              | 3500 ± 300 |
| Flexural elongation at break     | ISO 37                         | %                                | -          |
| Impact resistance (Charpy)       | EN ISO 179                     | kJ/m <sup>2</sup>                | 25 ± 10    |
| Compressive strength             | EN ISO 604                     | MPa                              | 105 ± 10   |
| Heat resistance (HDT)            | DIN EN ISO 75 B                | °C                               | 75 ± 3     |
| Glass transition temperature TG  | method DSC                     | °C                               | -          |
| Shore hardness                   | DIN ISO 7619-1                 | Shore D                          | 84 ± 3     |
| Coefficient of thermal expansion | internal test /<br>Dilatometer | 10 <sup>-6</sup> K <sup>-1</sup> | -          |
| Linear shrinkage                 | internal                       | %                                | -          |

## Sales units (packages)

|       |          |        |   |
|-------|----------|--------|---|
| Units | Resin    | AH 110 | 5,000 kg / 10,000 kg / 50,000 kg / 220,000 kg |
|       | Hardener | GL     | 1,2 kg / 5 kg / 15 kg / 50 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/GL is an epoxy resin with high strength even on elevated temperatures. It can be used as a casting resin with powdery fillers like aluminium powder, as a laminating resin with fibre glass cloth and as a bonding resin for granular fillers like aluminium granules. Depending on the application you can choose from a variety of hardeners.

AH 100/GL is suitable as laminating resin for large area parts and thick laminates. Due to its almost odourless skin friendly hardener GL, this mixture is especially applicable as laminating resin.

With a mixing ratio of 100:39 you reach an about 15°C higher TG, slightly stiffer laminates as well as better impact resistance. The laminate thickness should not exceed 6-7 mm.

## Storing

At appropriate storage 18-25°C.

Occuring 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.