

Basis	<b>Heat resistant forming resin</b>
Resin	<b>GH 705</b>
Hardener	<b>TL</b>
Colour	alu grey
Further hardeners	<b>SR</b>

### Applications

- PU-foaming tools
- RIM foam tools
- Vacuum forming tools
- Heatable foundry patterns

### Properties

- high heat resistance
- aluminium-like

### Processing data

Product		Mixture GH 705 / TL	Resin GH 705	Hardener TL
Colour		alu grey	alu grey	yellow transparent
<b>Mixing ratio</b>	<b>p. b. w.</b>		<b>100</b>	<b>10</b>
Viscosity at 25°C	mPas	7000 ± 700	14000 ± 3000	90 ± 15
Density at 20°C	g / cm <sup>3</sup>	1,70 ± 0,05	1,74 ± 0,03	0,967 ± 0,010
Pot life 200 g / 20°C	min.	65 - 75	-	-
Curing time at RT	hrs.	16 - 24	-	-
Post curing	Time in h/ Temperature in °C	8 - 12 / 60 - 80	-	-

### Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	80 ± 5
Flexural modulus	EN ISO 178	MPa	7200 ± 300
Flexural strength at breakage	EN ISO 178	%	1,70 ± 0,2
Compressive strength	EN ISO 604	MPa	80 ± 5
Impact resistance (Charpy)	EN ISO 179	kJ/m <sup>2</sup>	13 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	91 ± 3
Shore hardness	DIN 53505	Shore D	86 ± 3
Coefficient of linear expansion	DIN 53752	10 <sup>-6</sup> K <sup>-1</sup>	ca. 63
Linear shrinkage	internal	%	-

### Sales units (packages)

Packing size	B - Pack	GH 705 / TL	Resin 6 x 1,000 kg / Hardener 6 x 0,100 kg = 6,600 kg
Units	Hardener	GH 705	8,000 kg / 20,000 kg
	Hardener	TL	2,500 kg / 5,000 kg

## Processing instructions

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

Filled systems should be stirred thoroughly before use.

After each use the containers have to be closed again.

Porous mould surfaces should be sealed before ( **ebalta** sealant ).

For an optimum mould release we recommend a suitable release agent (e.g. T 1-1) which can be easily applied with a brush. The mould should be treated 2 or 3 times with release agent and allowed to evaporate for approx. 20 min after every application.

Mixing ratio resin/hardener according to instructions!

To get a clean component part, we recommend upward flow casting and to take care of sufficient venting.

Resin residues at stirring rods and so on can be easily cleaned with our cleaning agent.

## In General

**ebalta** GH 705/TL is a thick-castable, aluminium-filled, heat-resistant, two-components epoxy resin, which shows aluminium-like properties after curing at room temperature.

Due to high aluminium contents GH 705/TL shows good thermal conductivity, is well workable and has a low linear expansion coefficient.

A thickness of about 30 mm can be casted, by adding massive aluminium granules thicknesses of more than 100 mm can be casted.

Together with hardener SR, GH 705 can also be used as gelcoat resin.

Mixing ratio: GH 705/SR = 100:9

Maximum thermal stability of thin-wall casting parts is reached after immediate thermal treatment of 12-15 hrs. at 50-60°C after curing at room temperature. The thermal treatment can also be made by slow heating up to working temperature. At a casting thickness of more than 80 mm an automatic thermal treatment happens by formation of heat of reaction.

Curing time:

10 mm thickness: 12 hrs..

50 mm thickness: 6 hrs.

100 mm thickness: 4 hrs.

## Storing

Storage at room temperature (18-25 °C) in closed original container 9 months.

Already opened containers should be closed immediately after use and should be used as soon as possible.

## 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.

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