

Basis	<b>Heat resistant fast curing resin system</b>
Resin	<b>SG 150 Comp. 1</b>
Resin	<b>SG 150 Comp. 2</b>
Hardener	<b>Hardener powder SG 150</b>
Filler	<b>Alu powder</b>
Colour	grey

### Applications

- Vacuum forming tools
- Foam tools
- Polyester press tool

### Properties

- heat resistant
- fast curing

### Processing data

Product		Mixture SG 150	Resin SG 150 Comp. 1	Resin SG 150 Comp. 2	Hardener Hardener powder SG 150	Filler Alu powder
Colour		grey	greenish transparent	yellow transparent	white	alu grey
<b>Mixing ratio</b>	<b>p. b. w.</b>		<b>100</b>	<b>200</b>	<b>9</b>	<b>450</b>
Viscosity at 25°C	mPas	7000 ± 1000	-	-	-	-
Density at 20°C	g / cm <sup>3</sup>	1,7 ± 0,05	-	-	-	-
Pot life 200 g / 20°C	min.	18 - 22	-	-	-	-
Curing time at RT	hrs.	0,5 - 1	-	-	-	-

### Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	57 ± 4
Flexural modulus	EN ISO 178	MPa	-
Flexural strength at breakage	EN ISO 178	%	-
Compressive strength	EN ISO 604	MPa	90 ± 10
Impact resistance (Charpy)	EN ISO 179	kJ/m <sup>2</sup>	-
Heat resistance (HDT)	DIN EN ISO 75 B	°C	163 ± 5
Shore hardness	DIN 53505	Shore D	86 ± 3
Coefficient of linear expansion	DIN 53752	10 <sup>-6</sup> K <sup>-1</sup>	ca. 41
Linear shrinkage	internal	%	ca. 1 - 2

### Sales units (packages)

Units	Comp. A	SG 150 Comp. 1	4,000 kg / 25,000 kg
	Comp. 2	SG 150 Comp. 2	8,000 kg / 25,000 kg
	Hardener powder	Hardener powder SG 150	0,036 kg / 2,250 kg
	Filler	Alu powder	18,000 kg / 25,000 kg

## Processing instructions

### Release treatment:

All models and moulds have to be treated with **ebalta**-primer and **ebalta** release wax T2. The negative, which is treated with the release wax has to be treated with the release film PVA finally. The release film residues can be washed off easily with water after demoulding.

### Preparation:

The wall thicknesses should not be less than 30mm, as otherwise the necessary curing is not achieved.

### Result:

Weakening of the edges, danger of cracks. A after post-curing of the system is not possible.

1. Komp. 1+2 parts by weight 1: 2, casting together and mixing
2. Stirring in of aluminium powder , 1,5 x quantity of comp. 1 + 2
3. approx. 1-2 hours for evacuation
4. 3% hardener powder, refering to comp. 1+2, to be stirred in carefully by hand
5. After further 10 minutes short stirring by hand and then casting

Mixing table: please see separate sheet.

In case of an open casting mould the casting should be covered with a board after the casting operation, so that the reaction heat of can not escape faster at the back than within the mould, this prevents distortion.

### Advice:

The processing temperature should never be lower than 20°C.

All components should have at least this temperature. In case of lower processing temperature, the potlife would be prolonged extremely and the chemical process would start very slowly. In the meantime the aluminium filler would sink in the mould and result in different densities, which lead to distortion of the casting.

During curing of **ebalta** SG 150 temperatures up to 130°C can occur depending on casting thickness. The final strength will be achieved after 24 hours.

## In General

**ebalta** SG 150 is a three component acryl casting resin. It consists of 2 liquid components and a hardener powder. Both liquid components are filled with the 1,5 amount in ppw of special aluminium powder. The resin cures within 20-30 minutes to well heat-conducting, heat-resistant moulds.

The cured moulds are very well workable by machines. The structure is extremely dense and the machined areas have an aluminium-like appearance.

It is possible to cast any quantity, which can be mixed in one or more containers. Aftercasting or casting in layers is not possible. Therefore it is very important to determine the casting volume exactly in order to avoid that the mixed quantity is too small.

## Storing

At room temperature (18 – 25°C) and closed original containers storage life is 6 months.

Partly used containers have always to be closed and the material has to be used up 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.

**ebalta** UK Limited . B2 Langham Park, Trent Lane . Castle Donington . Derbyshire DE74 2UT  
t: +44 1332 814700 . f: +44 1332 814775 . e: [info@ebalta.co.uk](mailto:info@ebalta.co.uk) . w: [www.ebalta.co.uk](http://www.ebalta.co.uk)