

PRODUCT DATA SHEET

SikaBiresin® GC155

Epoxy gelcoat with high temperature resistance

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaBiresin® GC155 (A)	SikaBiresin® GC155 (B)
Chemical base	Epoxy resin, filled	Amine, unfilled
Color	Dark grey	Amber
	mixed	Dark grey
Density	1.60 kg/l	0.98 kg/l
	cured	1.53 kg/l
Mixing ratio	by weight	100 : 14
Viscosity (CQP029-4 / ISO 3219)	33 000 mPa·s	120 mPa·s
	mixed	8500 mPa·s
Pot life (CQP021-4)	500 g at 23 °C	4 hours
Shore D hardness (CQP023-1 / ISO 868)	88 ^A	
Flexural modulus (CQP027-2 / ISO 178)	7000 MPa ^A	
Flexural strength (CQP027-2 / ISO 178)	101 MPa ^A	
Tensile strength (CQP036-2 / ISO 527)	56 MPa ^A	
Tensile modulus (CQP036-2 / ISO 527)	6000 MPa ^A	
Elongation at break (CQP036-2 / ISO 527)	1 % ^A	
Impact resistance (CQP038-2 / ISO 179)	10 kJ/m ² ^A	
Compressive strength (CQP028-5 / ISO 604)	143 MPa ^A	
Heat deflection temperature (CQP030-1 / ISO 75B)	135 °C ^A	
Glass transition temperature (CQP301-5 / ISO 11357)	140 °C ^A	
Shelf life	24 months	12 months

CQP = Corporate Quality Procedure

^A) curing condition: 160 °C for 8 hours

DESCRIPTION

SikaBiresin® GC155 is a 2-component epoxy gelcoat with high temperature resistance. It is easy to apply by brush or roller.

PRODUCT BENEFITS

- High heat resistance up to 140 °C
- Easy to apply (also by roller)
- Dense surface

AREAS OF APPLICATION

SikaBiresin® GC155 is designed for the production of large composite molds. It is part of a product system dedicated to mold making (see section Further Information).

This product is suitable for experienced professional users only.

Tests under actual processing conditions and with additional materials such as coatings and release agents must be performed to proof material compatibility.

METHOD OF APPLICATION

Surface preparation

The material, processing and mold or master-model temperature shall be between 18 °C and 25 °C.
Make sure the mold or master model is clean, dry, dust and grease free.
If mold or master-model surface is porous, it must be sealed prior applying the release agent. It is recommended to use wax-based release agents. For further information regarding Sika release agent consult the corresponding Product Data Sheet.

Mixing process

Prior to use check the material for homogeneity and crystallization.
After prolonged storage at low temperature, crystallization of components may occur. This process can be easily reversed by heating the affected component to a maximum of 70 °C until the crystals have disappeared. Allow to cool down to requested processing temperature before use.
Component A must be stirred thoroughly before use.
Both components must be mixed homogeneously respecting the defined mixing ratio. The mixing can be performed with a spatula or a machine stirrer at ≤ 300 rpm.
Note: Both containers must be closed tightly immediately after use to prevent moisture ingress.
Once opened the Product shall be used as soon as possible.

Application

Apply the gelcoat to the mold in a uniform thickness using a flat, short-haired brush or a roller.
Pre-curing at 60 °C for 4 hours is mandatory before removal of the mold from the plug.
Post-curing of the finished part at 160 °C for 8 hours improves the resistance of the gelcoat in respect of temperature, solvents and water.
Note: The post-curing requires a slow temperature increase and decrease process.
Depending on the geometry and weight of the part, it is recommended to use a counter-part (conformer) during post-curing.

STORAGE CONDITIONS

Both components must be stored at temperature between 15 °C and 25 °C in original unopened containers.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.
Copies of the following publications are available on request:

- Safety Data Sheets
- Application Manual Composite Mold Making System with SikaBiresin® GC155

PACKAGING INFORMATION

SikaBiresin® GC155 (A)	
Pail	10 kg
SikaBiresin® GC155 (B)	
Canister	1.4 kg

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

