

PROVISORY PRODUCT DATA SHEET

SikaBiresin® B176

ADHESIVE FOR HIGH TEMPERATURE RESISTANT EPOXY TOOLING BOARDS

APPLICATIONS

- Dedicated bonding system for epoxy boards **LAB 975 New** and **SikaBlock® M976**

MAIN PROPERTIES

- Easy mixing paste manually
- Not sagging up to 3-5mm on vertical surface
- Room temperature curing and postcuring in case needed
- Good milling behavior
- High heat resistance
- Bonding line not transferring/marking onto prepregs mould or part

DESCRIPTION

Basis	Two component epoxy adhesive
Component A	SikaBiresin® B176 Resin , epoxy resin, blue, pasty
Component B	SikaBiresin® B176 Hardener , amine, amber, liquid

PROCESSING DATA

		Resin (A)	Hardener (B)
Components		SikaBiresin® B176	SikaBiresin® B176
Density, 25 °C	g/cm ³	0.80	0.99
Mixing ratio	in parts by weight	100 : 15	
		Mixture	
Mixed viscosity, RT	mPa.s	thixotropic	
Consumption, average	kg/m ²	~ 0.53	
Potlife, RT	min	~ 45	
Gel-time	h	~ 2.5	
Setting time, RT (workable)	h	~ 16	

MECHANICAL PROPERTIES

approx. values

Density	ISO 1183	g/cm ³	0.82
Curing conditions	time/temperature		24 hrs 23°C + 4 hrs 80°C + 4 hrs 120°C
Shore hardness	ISO 868		D 79 @ 23°C
Shore hardness	ISO 868		D 67 @ 120°C
Glass transition temperature	ISO 11359	°C	122
Linear coefficient of thermal expansion	ISO 11359	10 ⁻⁶ K ⁻¹	47

PACKAGING UNITS

- | | |
|--|-------------|
| ▪ Resin (A), SikaBiresin® B176 | 6 x 0.6 kg |
| ▪ Hardener (B), SikaBiresin® B176 | 6 x 0.09 kg |

PROCESSING

- The material, processing and substrate temperature shall be between 18 °C – 25 °C.
- Make sure the bonding areas are clean, dry, dust and free of grease or oil.
- After thoroughly mixing the components respecting the defined mixing ratio, apply the adhesive and spread it on the surfaces. The adhesive can be spread with a brush or toothed spatula.
- The parts are pressed together with clamps so that an air bubble-free filling of the gaps is achieved in layer thicknesses of approx. 0.2 mm.
- Pressing time of 16 hours shall be respected.

STORAGE CONDITIONS

Shelf life	▪ Resin (A), SikaBiresin® B176	6 months
	▪ Hardener (B), SikaBiresin® B176	6 months
Storage temperatures	▪ Resin (A), SikaBiresin® B176	18 – 25 °C
	▪ Hardener (B), SikaBiresin® B176	18 – 25 °C
Opened packages	▪ Containers must be closed tightly immediately after use to prevent moisture and dust ingress.	
	▪ The residual material needs to be used up as soon as possible.	

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 Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets

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.

LEGAL NOTICE

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.

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