

SikaBiresin® CR75 (former RSF 816 G)

Laminating system based on a partially bio-based resin

Product Description

SikaBiresin® CR75 is a bio-based epoxy resin, formulated specially with environmentally friendly resins, alternatives to extraction based systems.

Application Areas

SikaBiresin® CR75 was developed for production of clear and transparent laminates, that require high UV stability, such as surfing boards, decorative laminates, etc.

Features / Advantages

- SikaBiresin® CR75 can be combined with natural fibers and fabrics such as flax, hemp or cellulose based materials for greener composite solutions.
- Low mix viscosity.
- Quick setting at room temperature.
- Processing is possible by wet lay-up, vaccum bagging, infusion and compression molding.
- SikaBiresin® CR75 contains raw materials registered by the EPD® (Environmental Product Declaration).

Physical Data		Resin (A)	Hardener (B)	
Individual Components		SikaBiresin® CR75	SikaBiresin® CH75-1	SikaBiresin® CH80-3
Mixing Ratio, parts by	Weight	100	40	29
Mixing Ratio, parts by	Volume	100	47	35
Colour		transparent blue	transparent	transparent
Viscosity, 25 °C	mPa.s	~1800	~35	~15
Density, 25 °C	g/ml	1.16	0.98	0.95
		Mixture		
Potlife, 500 g, 25 °C, approx. values		min	28	82
Mixed viscosity, 25 °C, approx. values		mPa.s	500	400

Processing

- The material and processing temperatures should be in the range 18 - 35 °C.
- The mixing ratio must be followed accurately to obtain best results. Deviating from the correct mix ratio will lead to lower performance.
- The final mechanical and thermal values are dependent on the applied postcuring cycles.
- It is recommended to clean brushes or tools immediately after use with Sika Reinigungsmittel 5.
- Additional information is available in "Processing Instructions for Composite Resins".

Typical Mechanical Properties of Cured Neat Resin				
Biresin® CR75 resin (A)	with hardener (B)		SikaBiresin® CH75-1	SikaBiresin® CH80-3
Curing conditions			16 h / 40 °C	16 h / 80 °C
Tensile strength	ISO 527	MPa	60	85
Elongation at break	ISO 527	%	5	6
Flexural strength	ISO 178	MPa	115	130
Flexural E-Modulus	ISO 178	MPa	3200	3000
Density	ISO 1675	g/cm ³	1.15	1.15
Shore hardness	ISO 868	-	D 82	D 82
Impact resistance	ISO 179	kJ/m ²	15	-

Typical Thermal Properties of Cured Neat Resin				
Biresin® CR75 resin (A)	with hardener (B)		SikaBiresin® CH75-1	SikaBiresin® CH80-3
Glass transition temperature (T _g)	ISO 11357	°C		
Cured : 16 h at 23 °C + 16 h at 40 °C			60	-
Cured : 16 h at 23 °C + 16 h at 80 °C			75	90

Packaging (net weight, kg)				
SikaBiresin® CR75 resin (A)	200		3.5	6 x 1
SikaBiresin® CH75-1 hardener (B)	200	18	1.4	6 x 0.4
SikaBiresin® CH80-3 hardener (B)		17.6	7.05	

Storage

- Minimum shelf life of SikaBiresin® CR75 resin (A) is 24 month as well as SikaBiresin® CH75-1 and SikaBiresin® CH80-3 hardeners (B), at temperature between 5 - 35 °C, when stored in original unopened containers.
- After prolonged storage at low temperature, crystallisation of resin (A) may occur. This is easily removed by warming up for a sufficient time at a minimum of 60 °C.
- Containers must be closed tightly immediately after use. The residual material needs to be used up as soon as possible.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

Disposal considerations

Product Recommendations: Must be disposed of in a special waste disposal unit in accordance with the corresponding regulations.
 Packaging Recommendations: Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste.

Value Bases

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

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.

Further information available at:

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