

## PRODUCT DATA SHEET

# SikaBiresin® CR910

Fast 2-component epoxy resin system for structural laminate repairs

**TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)**

Properties	SikaBiresin® CR910	SikaBiresin® CH910-1 (B)	SikaBiresin® CH910-5 (B)
Chemical base	Epoxy	Amine	Amine
Color	translucent	amber	amber
	mixed	Colorless to amber	
Density	1.17 g/cm <sup>3</sup> <sup>A</sup>	0.98 g/cm <sup>3</sup> <sup>A</sup> 1.18 g/cm <sup>3</sup> <sup>A</sup>	0.94 g/cm <sup>3</sup> <sup>A</sup> 1.17 g/cm <sup>3</sup> <sup>A</sup>
	cured		
Mixing ratio	by weight	100 : 20	100 : 20
Viscosity (CQP029-4)	2300 mPa·s <sup>A,C</sup>	50 mPa·s <sup>B,C</sup> 800 mPa·s <sup>B,C</sup>	12 mPa·s <sup>B,C</sup> 580 mPa·s <sup>B,C</sup>
	mixed		
Application temperature		5 – 35 °C	5 – 35 °C
Pot-life (CQP536-3)		45 minutes	160 minutes
Curing conditions	2 hours	80 °C	80 °C
Tensile strength (CQP036-2 / ISO 527)		80 MPa <sup>A,D</sup>	85 MPa <sup>A,D</sup>
Tensile modulus (CQP036-2 / ISO 527)		3200 MPa <sup>A,D</sup>	3300 MPa <sup>A,D</sup>
Tensile elongation (CQP036-2 / ISO 527)		5 % <sup>A,D</sup>	5 % <sup>A,D</sup>
Flexural strength (CQP027-2 / ISO 178)		130 MPa <sup>A,D</sup>	130 MPa <sup>A,D</sup>
Flexural modulus (CQP027-2 / ISO 178)		3400 MPa <sup>A,D</sup>	3400 MPa <sup>A,D</sup>
Compressive strength (CQP028-5 / ISO 604)		110 MPa <sup>A,D</sup>	115 MPa <sup>A,D</sup>
Shore D hardness (CQP023-1 / ISO 868)		85 <sup>A,D</sup>	85 <sup>A,D</sup>
Glass transition temperature by DSC (CQP301-5 / ISO 11357)		95 °C <sup>D</sup>	95 °C <sup>D</sup>
Shelf life	24 months	24 months	24 months

CQP = Corporate Quality Procedure  
<sup>C</sup>) rotation, PP40, 0.5 mm, 150 min<sup>-1</sup>

<sup>A</sup>) 23 °C / 50 % r.h.  
<sup>D</sup>) cured for 2 hours at 80 °C

<sup>B</sup>) 25 °C / 50 % r.h.

**DESCRIPTION**

SikaBiresin® CR910 is a high T<sub>g</sub> composite resin system for wet lay-up processing.

It is used where fast curing products for repair of wind blades are requested. Depending on required potlife the slow or fast hardener has to be used.

**PRODUCT BENEFITS**

- Good impregnation and non-draining properties
- High glass transition temperature
- Fast curing
- High stiffness and strength
- Direct curing without waiting gel-time
- Usable for hand lay-up in production and field repair
- Resistant to crystallization at low temperature
- Light weight packaging (MixPax)

**AREAS OF APPLICATION**

SikaBiresin® CR910 is designed for repair of damaged laminate structures of rotor blades. It is optimized for hand lay-up but can also be used for repair of patches by vacuum infusion. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

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## CURE MECHANISM

The curing of SikaBiresin® CR910 takes place by chemical reaction of the two components. Higher temperatures speed up the curing process and lower slow it down.

## CHEMICAL RESISTANCE

In case of chemical or thermal exposure conduct project related testing.

## METHOD OF APPLICATION

### Surface Preparation

It is necessary to prepare the substrates prior to lamination to ensure optimal adhesion and strength. Surfaces must be clean, dry and free from grease, oil, dust and contaminants. After the cleaning process, a physical or chemical pretreatment might be required, depending on the surface and type of material.

### Mixing process

Open packaging and remove sealing strip. Retain plastic clip and use it to move resin (A) into the section containing the hardener (B). Repeat 4 - 6 times. Squeeze packaging vigorously for 30 s to properly mix the two components. Carefully cut off the corner of the packaging and pour the resin into a cup. Apply SikaBiresin® CR910 within pot life.

### Application

For information concerning application consult the Application Manual SikaBiresin® CR910 Blade Repair.

## Removal

Uncured SikaBiresin® CR910 may be removed from tools and equipment with Sika® Cleaner P. Once cured, the material can only be removed mechanically.

Hands and exposed skin have to be washed immediately using a suitable industrial hand cleaner and water.

Do not use solvents on skin.

## STORAGE CONDITIONS

All components must be stored between 15 °C and 30 °C in a dry place.

Prior to use check the material for homogeneity and crystallization and make sure to temper it to processing temperature. If crystallization of resin occurs, heat the MixPax to 60 °C until crystallization has disappeared (maximum 2 hours).

During transportation, a short term temperature of 60 °C must not be exceeded. Do not expose to direct sunlight.

## 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 Sheet
- Application Manual  
SikaBiresin® CR910 Blade Repair

## PACKAGING INFORMATION

SikaBiresin® CR910 (A)

Pail	10 kg
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SikaBiresin® CH910-1 (B)

Can	2.0 kg
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SikaBiresin® CH910-5 (B)

Can	4.0 kg
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SikaBiresin® CR910 (A+B)

MixPax	300 g
Cartridge	940 ml

## 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.

## ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by contacting SIKA's Technical Service Department via email at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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