BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® CR101 (Formerly EL-335)

Toughened Epoxy Laminating System with High Impact Resistance

TYPICAL PHYSICAL PROPERTIES (FOR FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaBiresin® CR101 (A) Resin	SikaBiresin® CH101-2 (B) Hardener	SikaBiresin® CH101-3 (B) Hardener
Composition	Epoxy	Amine	Amine
Mix ratio – by weight	100	20	13
Aspect	Clear liquid	Clear liquid	Clear liquid
Color (mixed)	n/a	Light amber	Light amber
Viscosity – Brookfield (mixed)	n/a	1,500 cps	2,500 cps
Density at 77°F (25°C) (mixed)	n/a	14.18 lbs./gal	9.34 lbs./gal
Pot life (228g) at 77°F (25°C)	n/a	40 - 60 Minutes	85 – 95 Minutes

DESCRIPTION

SikaBiresin® CR101 is a high-performance, toughened laminating system developed for intermediate temperature laminating applications up to approximately 225°F (107°C). SikaBiresin® CR101 composites exhibit increased impact resistance in the fabrication of parts which will be used in a intermediate heat temperature environment where stability and performance are required. SikaBiresin® CR101 is availble with a choice of two hardener options with different pot lifes for process flexibility.

PRODUCT BENEFITS

- For applications up to approximately 225°F (107°C)
- High impact resistance and toughness
- Two hardener choices (fast and slow)
- Excellent cloth wet-out
- Good elongation
- Increased hardness at elevated temperatures
- Excellent dimensional stability
- Good mechanical shock properties

AREAS OF APPLICATION

SikaBiresin® CR101 is used for prototypes, patterns, master models, tough composites parts, trim, holding and checking fixtures, intermediate temperature use splash molds, and potting bushings. SikaBiresin® CR101 can be used for laminating with graphite, EL-Glass, S-Glass and Kevlar fabrics.

Tests with actual materials and conditions have to be performed to ensure satisfactory performance.

TYPICAL MECHANICAL AND THERMAL PROPERTIES (NEAT FORM)

Properties, Test Method	Mixed with SikaBiresin® CR101 (A) Resin	
	SikaBiresin® CH101-2 (B) Hardener	SikaBiresin® CH101-3 (B) Hardener
Shore D hardness, ASTM D2240	86	87
Compressive strength, ASTM D695	16,500 psi (114 MPa)	16,860 psi (116 MPa)
Tensile elongation, ASTM D638	4.0%	2.0%
Heat deflection temperature (66 psi), ASTM D648 (264 psi), ASTM D648	196°F (91°C) 185°F (85°C)	214°F (101°C) 201°F (94°C)
Coefficient of Thermal Expansion (CTE)	34 ppm/°F (61 ppm/°C)	34 ppm/°F (61 ppm/°C)
Impact strength (cast bar)	10.64 in-lbf/in	12.15 in-lbf/in

Cure schedule: 24 Hours at room temperature + 4 hours at 212°F (100°C)

PROCESSING

Alternative post-cure options can be used, if needed, in processing. Contact Sika Corporation's Industry Technical Services Department at tsmh@us.sika.com for additional information and advice.

Normal health and safety precautions should be observed when handling these products:

- Ensure adequate ventilation
- Wear gloves, glasses, and protective clothes

For further information, please consult the Safety Data Sheets

STORAGE CONDITIONS

Shelf life of resin and hardeners is 24 months when stored in original, unopened containers between 65-77°F (15 - 25°C). Any opened can must be tightly closed.

PACKAGING INFORMATION

Packaging information is available upon request. Please contact your local Sika sales representative.

FURTHER INFORMATION

Advice on specific applications will be given on request. To contact Sika Corporation's Industry Technical Services Department, send an email to tsmh@us.sika.com. Copies of Safety Data Sheets and Product Data Sheets are available upon request.

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 or by contacting SIKA's Technical Service Department via email at 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. SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.** Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at https://usa.sika.com/en/group/SikaCorp/termsandconditions.html or by calling +1 800-933-7452

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