

PRODUCT DATA SHEET

# SikaBiresin® B183 (Formerly TCC-205)

## Epoxy Laminating System and Adhesive

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

| Properties                     | SikaBiresin® B183 (A)<br>Resin | SikaBiresin® G102 (B)<br>Hardener | SikaBiresin® G104 (B)<br>Hardener |
|--------------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| Composition                    | Epoxy                          | Amine                             | Amine                             |
| Mix ratio – by weight          | 100                            | 25                                | 25                                |
| Aspect                         | Clear liquid                   | Clear liquid                      | Clear liquid                      |
| Color (mixed)                  | n/a                            | Light amber                       | Light amber                       |
| Viscosity – Brookfield (mixed) | n/a                            | 700 cps                           | 800 cps                           |
| Density at 77°F (25°C) (mixed) | n/a                            | 1.09 g/cc (9.09 lbs./gal)         | 1.10 g/cc (9.17 lbs./gal)         |
| Pot life (228g) at 77°F (25°C) | n/a                            | 15 - 20 Minutes                   | 30 – 35 Minutes                   |

#### DESCRIPTION

SikaBiresin® B183 is an unfilled, epoxy laminating system designed for room temperature applications. It also functions as a low-viscosity adhesive system for the Sika line of machinable polyurethane modeling and tooling boards, and for adhering plastic to wood. SikaBiresin® B183 can be used with either the fast-speed SikaBiresin® G102 (B) hardener, or the medium-speed SikaBiresin® G104 (B) hardener.

#### PRODUCT BENEFITS

- Two hardener choices for process flexibility
- Excellent wet-out with fiberglass, carbon and Kevlar cloth
- Excellent adhesion
- Excellent mechanical properties

#### AREAS OF APPLICATION

SikaBiresin® B183 is used for laminating with carbon, glass, and Kevlar fabrics. Laminating applications include master models, keller models, production parts, trim, holding fixtures, checking fixtures, duplication splashes, router and drill fixtures, prototypes, patterns, and core boxes. SikaBiresin® B183 can also be used as a low-viscosity adhesive system for the Sika line of machinable polyurethane modeling and tooling boards, and for adhering plastic to wood.

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® B183 (A) Resin |                                |
|---------------------------------|----------------------------------------|--------------------------------|
|                                 | SikaBiresin® G102 (B) Hardener         | SikaBiresin® G104 (B) Hardener |
| Shore D hardness, ASTM D2240    | 82 - 85                                | 82 - 85                        |
| Flexural strength, ASTM D790    | 18,000 psi (124 Mpa)                   | 18,000 (124 Mpa)               |
| Tensile strength, ASTM D638     | 9,500 psi (66 Mpa)                     | 9,500 psi (66 Mpa)             |
| Tensile elongation, ASTM D638   | 2.0 %                                  | 2.0 %                          |
| Compressive strength, ASTM D695 | 30,000 psi (207 MPa)                   | 30,000 psi (207 MPa)           |

Cure schedule: 7 days at 77°F (25°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](mailto: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](mailto: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](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. 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.