

PRODUCT DATA SHEET

SikaBiresin® L325 HT (Formerly EL-325HTTC)

Lightweight Composite Tooling Compound/Tooling Dough with High Temperature Resistance

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

Properties	SikaBiresin® L325 HT (A) Resin	SikaBiresin® L325 HT (B) Hardener
Composition	Epoxy	Amine
Mix ratio	by weight by volume	100 100
Aspect	Dough	Dough
Color	White	Black
Color (mixed)	n/a	Gray
Density at 77°F (25°C) (mixed)	n/a	.023 lbs/in ³ (.633 g/cc)
Work life (400g) at 77°F (25°C)	n/a	1.5 – 2.0 hours
Peak Exotherm (1 lb. mass)	n/a	130°F (54°C)

DESCRIPTION

SikaBiresin® L325 HT is an epoxy-based, composite tooling compound designed for the construction of tools, jigs, models, and other tooling that are exposed to elevated temperatures. The neutral resin and black hardener give a uniform dark gray color when thoroughly mixed that is pliable and can be applied to the tool surface without crumbling or cracking. Tools constructed with SikaBiresin® L325 HT maintain a very high degree of dimensional stability, are light weight, and can be machined as well as drilled and tapped. The SikaBiresin® L325 HT resin and harder are both syntactic compounds, which minimize splash hazards, in comparison to standard, high temperature epoxy laminating systems.

PRODUCT BENEFITS

- Colored resin and hardener for mix indication
- High temperature resistance
- Pliable and formable with no cracking or crumbling when mixed
- Can be machined or drilled and tapped
- Low density (lightweight)
- Very low coefficient of thermal expansion (CTE) for excellent dimensional stability
- Low exotherm build

AREAS OF APPLICATION

SikaBiresin® L325 HT is ideal for lightweight composite sandwich tools and structures. It is used for tools, jigs, models, and other application types.

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

TYPICAL MECHANICAL AND THERMAL PROPERTIES

Properties, Test Method	SikaBiresin® EL325 HT (A) Resin	SikaBiresin® EL325 HT (B) Hardener
Hardness, ASTM D2240	65 - 70	
Flexural strength, ASTM D790	9,600 psi (66 MPa)	
Flexural modulus, ASTM D790	540,000 psi (3,723 MPa)	
Compressive strength, ASTM D695	4,900 psi (34 MPa)	
Heat Deflection Temperature (66 psi), ASTM D648	425°F (218°C)	
Coefficient of thermal expansion (TMA)	9 ppm/°F (16 ppm/°C)	

Cure schedule: 24 hours at room temperature + 6 hours at 150°F (65.5°C) + 1 hour at 200°F (93°C) + 1 hour at 250°F (121°C) + 1 hour at 300°F (149°C) + 3 hours at 350°F (177°C)

PROCESSING

For sandwich structure tools, it is necessary to apply a slurry mixture, which serves as a bond coat, between the laminate and SikaBiresin® EL325 HT tooling compound. For more detailed instructions, please reference the Compostire Sandwich Tool Construction Application Guide. A preliminary self-support cure schedule can be used on a model, mold or plug. Cure for 24 hours at 77°F (25°C) + 6 hours at 150°F (66°C). You may attach support structure and de-mold the tool after this schedule is completed, prior to applying post-cure. 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 hardener is 12 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.