

PRODUCT DATA SHEET

# SikaBiresin® L337 (Formerly EL-337)

Filled Epoxy Laminating System for High Temperature Applications

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

Properties	SikaBiresin® L337 (A) Resin	SikaBiresin® L337 (B) Hardener
Composition	Epoxy	Amine
Mix ratio – by weight	100	16
Mix ratio – by volume	100	21
Aspect	Gray liquid	Clear amber liquid
Color (mixed)	n/a	Grey
Viscosity – Brookfield (mixed)	n/a	3,000 - 5,000 cps
Density at 77°F (25°C) (mixed)	n/a	10.51 lbs./gal
Pot life (228g) at 77°F (25°C)	n/a	45 - 60 Minutes

**DESCRIPTION**

SikaBiresin® L337 is a two component, filled, non-staining epoxy laminating system that provides room temperature hardening (B Stage) and is designed for high temperature laminating and tooling applications. SikaBiresin® L337 has excellent handling properties and fabric wet-out to produce a void free tool with high dimensional stability. Tools made with SikaBiresin® L337 can be used at continuous temperatures of 230°F (110°C) and up to a 250°F (121°C) intermittent use maximum. While SikaBiresin® L337 will gel at room temperature, it must be post-cured to achieve ultimate strength.

**PRODUCT BENEFITS**

- For applications up to 250°F (121°C)
- High mechanical properties
- Excellent cloth wet-out
- Excellent dimensional stability

**AREAS OF APPLICATION**

Typical applications include vacuum form molds, prototype injection molds, high temperature bonding fixtures, spray metal molds, compression molds, high temperature laminating molds and parts to be used in high temperature applications.

SikaBiresin® L337 can be used with Sika’s intermediate-to-high temperature surface coats: ES-229, SP-707, or ES-224.

**TYPICAL MECHANICAL AND THERMAL PROPERTIES (NEAT FORM UNLESS NOTED)**

Properties, Test Method	SikaBiresin® L337 (A) Resin	SikaBiresin® L337 (B) Hardener
Hardness, Shore D, ASTM D2240	88	
Flexural strength, ASTM D790 <sup>A</sup>	39,035psi (269MPa)	
Flexural modulus, ASTM D790 <sup>A</sup>	1,300,000psi (8,963MPa)	
Tensile strength, ASTM D638 <sup>A</sup>	27,285psi (188MPa)	
Compressive strength, ASTM D695	14,930 psi (103 MPa)	
Izod Impact Strength (notched), ASTM D256	5.29 in-lbf/in	
Glass Transition Temperature (T <sub>g</sub> by DMA)	238°F (115°C)	
Coefficient of thermal expansion - TMA	24 ppm/°F (43 ppm/°C)	

<sup>A</sup>6-Layer, 10 ounce glass fabric laminate

Cured 24 hours at 77°F (25°C) + 2 hours at 150°F (66°C) + 2 hours at 200°F (93°C) + 2 hours at 250°F (121°C) + 3 hours at 300°F (149°C).

**PROCESSING**

**Preliminary self-support cure schedule:** Cure for 24 hours at 77°F (25°C) + 4 hours at 125°F (51.6°C) - 140°F (60°C) range. You may attach support structure and demold tool after this schedule is completed before additional cure is given.

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.

**Heating and cooling rates during post-cure:** Always allow tools made with Sika® high temperature systems to gel at room temperature before subjecting them to post cure (24 hours is usually sufficient). This will prevent excessive exotherm and shrink stress from occurring. When oven curing laminated molds, always place mold in a room temperature oven and increase temperature at a rate of no more than 50°F (30°C) per hour. When heat cure is completed, turn off oven and allow molds to remain in the oven. Never remove mold from oven until mold temperature has been lowered to less than 100°F (38°C).

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). Keep containers 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, International703-527-3887.

**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.