

PRODUCT DATA SHEET

SikaBiresin® CR62 FR (Formerly EL-320)

Flame Retardant, Epoxy Laminating System

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

Properties	SikaBiresin® CR62 FR (A) Resin	SikaBiresin® CH62 (B) Hardener	SikaBiresin® CH62-1 (B) Fast Hardener
Composition	Epoxy	Amine	Amine
Mix ratio – by weight	100	10	17
Aspect	Clear liquid	Clear liquid	Clear liquid
Color (mixed)	n/a	Light amber	Light amber
Viscosity – Brookfield (mixed)	n/a	2,650 cps	1,700 cps
Density at 77°F (25°C) (mixed)	n/a	9.78 lbs./gal	9.78 lbs./gal
Pot life (220g) at 77°F (25°C)	n/a	45 Minutes	16 Minutes

DESCRIPTION

SikaBiresin® CR62 FR is a halogen-free, flame retardant, epoxy laminating system developed for use in fabricating parts or repairs on structures which require flame retardant, self-extinguishing properties with room temperature curing abilities. This system offers two hardener options; SikaBiresin® CH62 (B) is designed for vacuum bagging or closed mold applications, while SikaBiresin® CH62-1 (B) Fast is designed for use in fabricating open mold, hand laminated parts. This system does not contain PBDE, OBDE, or DBDE flame retardant additives.

PRODUCT BENEFITS

- Meets FAR 25.853 flame testing for aircraft interiors and other areas where flame retardant performance is required
- Non-halogen flame retardancy
- Self-extinguishing
- Epoxy (non-styrene)
- Excellent bond to all fabrics
- Two hardener choices for fast or medium pot life

AREAS OF APPLICATION

SikaBiresin® CR62 FR is suitable for vacuum bagging, open molding, or resin transfer molding applications. Areas of application include aerospace, transportation, architectural, and others.

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® CR62 FR (A) Resin		
	SikaBiresin® CH62 (B) Hardener ^A	SikaBiresin® CH62-1 (B) Fast Hardener ^A	SikaBiresin® CH62-1 (B) Fast Hardener ^B
Shore D hardness, ASTM D2240	80	65	82
Compressive strength, ASTM D695	13,180 psi (91 MPa)	9,437 psi (65 MPa)	18,336 psi (126 MPa)
Tensile elongation, ASTM D638	4.0%	4.0%	1.4%
HDT (66 psi), ASTM D648	104°F (40°C) 143°F (62°C) ^B	101°F (39°C)	137°F (58°C)
Flexural strength (6 ply glass lam.), ASTM D790	18,550 psi (128 MPa)	5,018 psi (35 MPa)	7,865 psi (53 MPa)
Flexural modulus (6 ply glass lam.), ASTM D790	774,000 psi (5,337 MPa)	280,000 psi (1,936 MPa)	1.07 x 10 ⁶ psi (7,364 MPa)
Tensile strength (6 ply glass lam.), ASTM D638	32,670 psi (225 MPa)	15,300 psi (106 MPa)	16,472 psi (114 MPa)
Impact strength (cast bar)	10.64 in-lbf/in	12.15 in-lbf/in	6.16 in-lbf/in

^A) Cure schedule: Samples tested after 7 days at 77°F (25°C)

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

FLAME RETARDENT PROPERTIES^C

Test Description	Test Method	Test Results
(F1) 60 Second Vertical Burn, 90° Vertical Ignition Test	FAR/JAR 25.853	Pass
(F2) 12 Second Vertical Burn, 90° Vertical Ignition Test	FAR/JAR 25.853	Pass

^C) FAR/JAR 25.853 Appendix F, Part I(a)(1)(i), (ii), (v) (3 ply 7500 Style E-Glass Laminate). 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 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

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