



Scotch-Weld™

Void Filling and Edge Sealing Compound

EC-3524 B/A

Technical Data

Issue No. 2

Product Description

3M EC-3524 B/A Void Filling and Edge Sealing Compound is a two-part flame retardant epoxy. 3M EC-3524 B/A Compound can be used for void filling, edge sealing, and as an abradable compound in aircraft engines.

Features

- Sandable within 3 hours of mixing.
- Cures to a strong low density material within 48 hours at 75°F (24°C).
- Meets the flammability requirements of F.A.R. 25.853 (a) and (b).
- The compound has thixotropic properties for ease of application.
- Base is blue, accelerator is white to ensure complete and uniform mixing.
- Can be used for as a fairing compound for aerodynamic flushness.
- Reinforces honeycomb.
- Can be used for bonding inserts.
- Service temperature of 250°F (121°C).
- 100% solids.
- Seals and provides impact resistance to honeycomb panels edges.

Product Description

	EC-3524 Compound Part B	EC-3524 Compound Part A
Component:	Base	Accelerator
Color:	Blue	White
Base:	Epoxy	Modified Amine
Viscosity:	Low density dough	Low density dough
Mixing Ratio (by Weight):	100	94

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Typical Product Performance

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

100 grams of EC-3524 Compound Part B and 94 grams of EC-3524 Compound Part A were hand (spatula) mixed for 2-3 minutes then cast into a block 2 in. x 3 in. x 6 in. and cured 48 hours at ambient laboratory conditions. The following typical data were obtained on specimens cut from the cured block.

Density 29.3 - 31.2 lbs./ft.³ (0.47 - 0.50 grams/cc)

Tg = 137°F (54°C)

Compressive Strength (75°F [24°C] cure only; no postcure)

Test Temperature	Average
75°F (24°C)	2200 psi
250°F (121°C)	290 psi
300°F (149°C)	200 psi
350°F (177°C)	190 psi

Compressive Modulus at 75°F (24°C) 62,000 psi

Shore D Hardness at 75°F (24°C) 55 psi

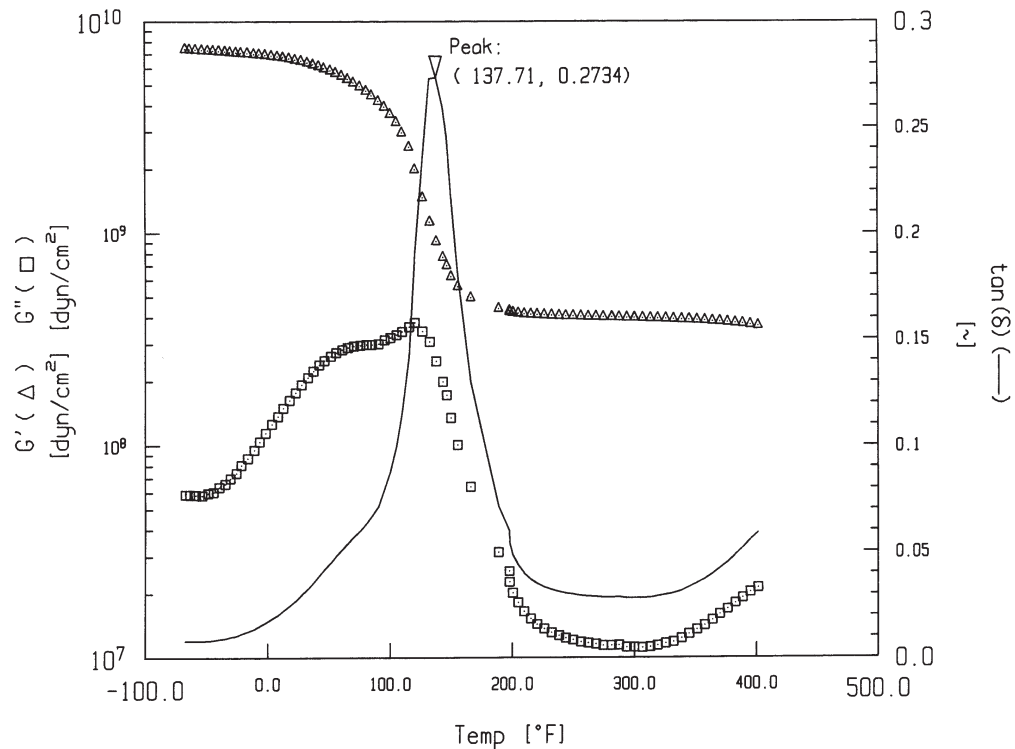
EC-3524 B/A Compound RDA

Rheometrics RDA II - Rectangular Torsion

Frequency 1 rad/second

Sample = 1/8 in. x 1/2 in. x 2 in.

Cured for 1 hour @ 250°F (121°C)



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Typical Product Performance *(continued)*

Aging Characteristics
Control Values

Test Temperature	Average Compressive Strength
75°F (24°C)	2290 psi
250°F (121°C)	290 psi
300°F (149°C)	210 psi

Aging Temperature	Test Temperature	Average Compressive Strength
75°F [24°C] (100 hours)	75°F (24°C)	2000 psi
250°F [121°C] (100 hours)	75°F (24°C)	2300 psi
	250°F (121°C)	220 psi
300°F [149°C] (100 hours)	75°F (24°C)	2500 psi
	300°F (149°C)	280 psi

Flammability:

Self extinguishing in less than 5 seconds as defined by Federal Test Method Standard No. 406 Method 2021.

When tested according to vertical mode to FAR 25.853 (a) and (b), it extinguished immediately upon removal of the flame, versus a requirement of 15 seconds maximum. The burn length averaged 4.5 inches versus a requirement of 6 inches maximum.

Product Application

Surface Preparation – A clean dry grease free surface is essential for maximum performance.

Mixing – EC-3524 B/A Compound may be mixed by hand or machine until a uniform blue color is obtained. Do not mix any more than can be used within the work life of the material. Work life of 200g of EC-3524 B/A Compound is approximately 1.5 hours. Work life of larger quantities will be shorter.

For industrial mixing applications, use a mixer that will not crush the glass microspheres contained in the compound.

Application – EC-3524 B/A Compound may be applied by spatula or trowel. Apply by working the material in place to reduce internal voids, and allow to set for two hours before finishing the surface. Large masses of material should be avoided until user performs suitable tests to determine the possibility of an exothermic situation.

EC-3524 B/A Compound will stick to rubber gloves. Cover rubber gloves with lint free cotton gloves for best handling.

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Product Application (continued)

Storage – Storage Stability – Store product at 80°F (27°C) or below. Rotate stock on first in - first out basis.

Shelf Life – 3M standard shelf life for EC-3524 Compound is 6 months from date of shipment from 3M when stored @ 80°F (27°C) or below.

Note: When using solvents for cleanup, follow the manufacturer’s precautions and directions for use for handling such materials.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or 612-737-6501.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free (800) 235-2376. Our fax number is (417) 869-5219. Address correspondence to: 3M Aerospace Central, 3211 E. Chestnut Expressway, Springfield, MO 65802.

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ISO 9002

This Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



Adhesives Division

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