



# Scotch-Weld™

## Void Filling and Edge Sealing Compound EC-3524 B/A and EC-3524 Off-White B/A

Technical Data

June 2007

### Product Description

3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A is a two-part flame retardant epoxy. Scotch-Weld EC-3524 B/A Compound can be used for void filling, edge sealing, and as an abradable compound in aircraft engines. It is available in blue or off-white when mixed.

### Features

- Sandable within three 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 comes in blue or pale blue, accelerator is white to ensure complete and uniform mixing.
- Can be used 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.
- Paintable

### Product Description

	Scotch-Weld EC-3524 Part B or Off-White Part B	Scotch-Weld EC-3524 Part A or Off-White Part A
<b>Component:</b>	Base	Accelerator
<b>Color:</b>	Blue or pale blue	White
<b>Base:</b>	Epoxy	Modified Amine
<b>Viscosity:</b>	Low density dough	Low density dough
<b>Mixing Ratio (by Weight):</b>	100	94
<b>Mixing Ratio (by Volume):</b>	1	1

# 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound

EC-3524 B/A and EC-3524 Off-White B/A

## 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. The following mechanical and physical data is based on EC-3524 Blue B/A.

100 grams of 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 Part B and 94 grams of 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.<sup>3</sup> (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

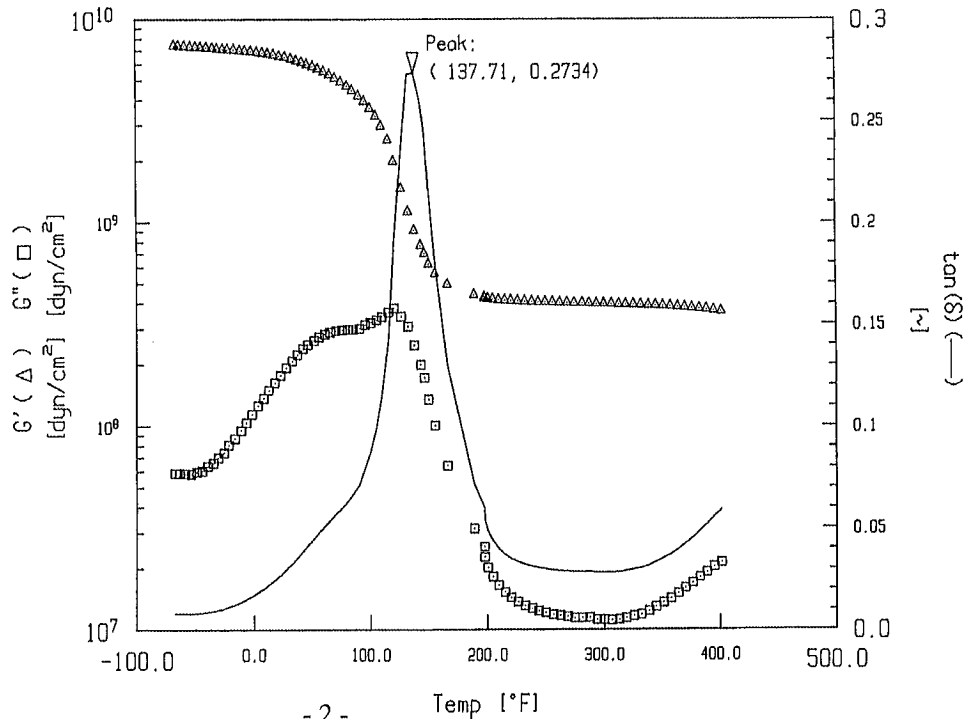
## Scotch-Weld EC-3524 B/A Compound RDA

### 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)**



# 3M™ Scotch-Weld™

## Void Filling and Edge Sealing Compound

### EC-3524 B/A and EC-3524 Off-White B/A

#### Typical Product Performance (continued)

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

#### 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 F.A.R. 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** – 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A or Off-White B/A may be mixed by hand or machine until a uniform color is obtained. Do not mix any more than can be used within the work life of the material. Work life of 200g of Scotch-Weld EC-3524 B/A 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** – Scotch-Weld 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 reaction.

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

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

# 3M™ Scotch-Weld™

## Void Filling and Edge Sealing Compound

### EC-3524 B/A and EC-3524 Off-White B/A

---

#### Storage

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

---

#### Shelf Life

Standard shelf life for 3M™ Scotch-Weld™ Void Filling and Edge Sealing Compound EC-3524 B/A and Off-White B/A is 6 months from date of shipment when stored @ 80°F (27°C) or below.

---

#### 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, visit [www.3M.com/msds](http://www.3M.com/msds) or call 1-800-364-3577 or (651) 737-6501.

---

#### For Additional Information

In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office or one of the following branches:

<b>Australia</b> 61-2-498-9711 tel 61-2-498-9710 fax	<b>Austria</b> 01-86686-298 tel 01-86686-229 fax	<b>Brazil</b> 55 19 3838-7876 tel 55 19 3838-6892 fax	<b>Canada</b> 800-410-6880 ext. 6018 tel 800-263-3489 fax
<b>China</b> 86-21-62753535 tel 86-21-62190698 fax	<b>Denmark</b> 45-43-480100 tel 45-43-968596 fax	<b>France</b> 0810-331-300 tel 30-31-6195 fax	<b>Germany</b> 02131-14-2344 tel 02131-14-3647 fax
<b>Italy</b> 02-7035-2177 tel 02-7035-2125 fax	<b>Japan</b> 03-3709-8245 tel 03-3709-8743 fax	<b>Korea</b> 02-3771-4114 tel 02-786-7429 fax	<b>Netherlands</b> 31-71-5-450-272 tel 31-71-5-450-280 fax
<b>South Africa</b> 11-922-9111 tel 11-922-2116 fax	<b>Spain</b> 34-91-321-6000 tel 34-91-321-6002 fax	<b>Switzerland</b> 01-724-9114 tel 01-724-9068 fax	<b>United Kingdom</b> (0) 161-237-6174 tel (0) 161-237-3371 fax

---

#### Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

---

#### Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.



This product was manufactured under a 3M quality standard registered under ISO9001 standards.



**Aerospace and Aircraft Maintenance Division**  
3M Center, Building 223-1N-14  
St. Paul, MN 55144-1000  
1-800-364-3577 or 651-737-6501  
[www.3M.com/aerospace](http://www.3M.com/aerospace)

Please Recycle. Printed in U.S.A.  
©3M 2007 78-6900-9558-9 (6/07)