

CS 3209 Class B

Technical Data Sheet

ELECTRICALLY CONDUCTIVE, FUEL-RESISTANT SEALANT

Description

CS 3209 Class B is an electrically conductive sealant designed for sealing between electrical components and aluminum substrates. Based on CS 3204, a fuel tank and fuselage sealant qualified to AMS-S-8082, added aluminum provide electrical resistance less than 0.002 ohm/square inch. Because of its fluid resistance, it can be used in fuel and non-fuel areas.

- Two-part, manganese dioxide cured polysulfide
- Room temperature cure
- Excellent adhesion to a wide variety of coated and bare aircraft substrates
- Excellent flexibility and resistance to fuel, water, and other aerospace fluids
- Cured material has a service temperature range of -65°F to 250°F (-54°C to 121°C).
- Uncured CS 3209 Class B is a thixotropic (low sag) material easily applied with an extrusion gun or spatula.
- CS 3209 B-1/2 and B-2 are qualified to STM40-109.

For information on other qualifications or the availability of modified products, contact Sales.

The following technical information and data are typical for the material but should not be used for specification or acceptance purposes. Testing was performed in accordance with STM40-109 or MIL-S-38228.

Typical Performance Properties

Cured 14 days at 77°F (25°C) and 50% relative humidity

Specific gravity	1.6 maximum
Ultimate hardness	48A
% Nonvolatile material	95%
Electrical resistance	0.002 ohm/square inch

Peel strength

First value is pli; second value is N/25 mm All 100% cohesive failure Dry (after standard cure)	
DMS 1786 primer	> 20 (88)
Alclad, QQ-A-250/13	> 20 (88)
After 72 hours in JRF Type III at 77°F (25°C)	
Alclad, QQ-A-250/13	> 15 (66)
After 72 hours in di-2-ethylhexyl sebacate with 0.5% phenothiazine at 77°F (25°C)	
Alclad, QQ-A-250/13	> 15 (66)

Typical Application Properties

At 77°F (25°C) and 50% relative humidity

Color	
Base	Off-white
Curing agent	Black
Mixed	Dark gray
Mix ratio	
By weight	100:10 (base/curing agent)
Base viscosity (Brookfield #7@ 2 rpm)	13,500 Poise (1350 Pa·s)
Slump	< 0.2" (5 mm)

	Minimum application time	Extrusion rate at application time (g/min)	Tack-free time (hours)	Cure time to 30A (hours)
B-1/2	30 minutes	20 - 50	6 - 8	< 30
B-2	2 hours	25 - 50	20 - 24	< 72

Surface Preparation

To obtain good adhesion, surfaces must be free of all traces of oil, wax, grease, dirt or other contaminants. A progressive cleaning process is recommended. Use an appropriate solvent and lint-free clothes. Pour solvent on the cloth to keep the solvent supply clean. Clean a small area at a time and wipe the surface dry with a second clean cloth. See SAE AIR 4069 for additional information on surface preparation. For Socomore's full line of solvents and wipes used for aerospace sealant preparation, and their customer approvals, visit www.Socomore.com.

Storage

Unmixed CS 3209 Class B has a shelf life of at least 9 months from date of packaging when stored below 80°F or below in the original, unopened package. Refrigerated shipping is not required, but storage above this temperature typically affects application properties before performance properties.

Mixing Instructions

CS 3209 base and curing agents are matched and tested together; do not mix lots. Mix according to the indicated mix ratios; using the incorrect ratio can affect the sealant properties and voids the warranty. Do not thin the material with solvents. For additional information, see the FAQ on the Flamemaster website (www.flamemaster.com).

Curing

The application, tack-free, and cure times are based on the standard conditions of 77°F (25°C) and 50% relative humidity. For information on the effects of temperature and humidity, as well as information on accelerated curing, see the FAQ on the Flamemaster website (www.flamemaster.com).

Clean up

Cured aerospace sealants are difficult to remove. Cleaning tools and other surfaces is best done when the material has not yet cured. For fresh material and tool cleaning use an appropriate solvent and lint-free cloth. Once the material has cured, use an approved chemical and/or plastic scraper to remove the sealant. For Socomore's full line of solvents, wipes, chemical sealant removers (SkyRestore), plastic scrapers (SkyScraper), and their customer approvals, visit www.Socomore.com.

Packaging

CS 3209 Class B is available in injection kits and can kits. Bulk packaging and premix frozen (PMF) may be available; contact Sales.

Health and Safety

Before using this material, read and understand the Safety Data Sheet (SDS) as it includes information on health, physical, and environmental hazards, as well as handling precautions and first aid recommendations. SDSs are available upon request.

Emergency Contact Chemtrec 800-424-9300
Outside North America 703-527-3887
Keep out of the reach of children
For industrial use only

Warranty, Limited Remedy, and Disclaimer

All recommendations, statements, and technical data contained herein are based on tests or experience that we believe to be reliable and correct, but accuracy and completeness of such information are not guaranteed and are not to be construed as a warranty, either expressed or implied. Flamemaster does not warranty the performance of fuel tank sealants or coatings when subjected to fluids or fuels other than those specified by the applicable specification.

Users shall rely on their own information and tests to determine suitability of the product for the intended use and users assume all risk and liability resulting from their use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

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This technical data sheet replaces and cancels the previous one.

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