CS-3202 Class B

OPTICAL SEALANT

Technical Data Sheet

Description

CS 3202 adhesive sealing compound was designed to bond metal-to-metal or glass-to-metal in optical or fire-control instruments.

- Two-component lead dioxide cured polysulfide
- Room temperature cure
- Excellent adhesion to a variety of substrates while maintaining good low temperature flexibility
- Cured material has a service temperature range of -65°F to 200°F (-54°C to 93°C).
- Uncured CS 3202 is a thixotropic (low sag) material easily applied with an extrusion gun or spatula.
- CS 3202 meets the requirements of A-A-59293, which superseded MIL-S-11031F; there is no QPL.

A-A-59293 only defines a material with a three-hour working life as determined by cone penetration. 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 A-A-59293 or AS5127/1.

Typical Performance Properties

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

Specific gravity (AS5127/1)	1.45
Ultimate hardness	40 – 45A
% Nonvolatile material	98%
Water solubility	3 % in distilled water
Low temperature flexibility	No cracking or loss of adhesion at -40° (-40°C) over 1 inch (25 mm) mandrel
Oil resistance – 4 days	No softening, blistering or loss of adhesion
Adhesion (measured by tensile strength after compression)	200 – 250 psi
Effect of volatile components	No crazing, pitting or etching of methyl methacrylate window
Water vapor permeability (water vapor transmission rate)	Less than 0.025 g/hour per square inch.

Typical Application Properties

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

Color	
Base	Black
Curing agent	Reddish brown
Mixed	Black
Mix ratio	
By weight	100:10 (base/curing agent)
Base viscosity (Brookfield #7@ 2 rpm)	11,000 – 13,000 Poise (1100 - 1300 Pa·s)
Flow	< 0.2” (5 mm)
Application time	3 hours
Tack-free time	< 24 hours
Cure rate	40A at 72 hours

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 3202 has a shelf life of at least 12 months from date of manufacture 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 3202 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).

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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 3202 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.