flamemaster
SOCOMORE Aerospace Sealants

SHIMS & SEALANTS

CS 2415 Class B

AERODYNAMIC SMOOTHING COMPOUND

Technical Data Sheet

Description

CS 2415 Class B was designed as an aerodynamic smoothing compound, typically used for sealing external seams, depressions, and gaps on aircraft for weather tightness and aerodynamic smoothness.

- Two-part, manganese dioxide cured polysulfide
- Room temperature cure
- Aluminum color
- 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 2415 Class B is a thixotropic (low sag) material easily applied with an extrusion gun or spatula.
- CS 2415 B-1/2 and B-2 are qualified to DMS 1819 as well as STM40-006; meets requirements of MIL-S-38228 which does not have a QPL.

A word about specifications: For both MIL-S-38228 and STM40-006, Type I indicates a temperature range of -65°F to 250°F (-54°C to 121°C). For STM40-006, the designation "Class A" is used for fuel resistant materials. Therefore, CS 3202 Class B-2 is designated MIL-S-38228 I-2 or STM40-006 Type 1, Class A-2. 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 DMS1819, STM40-006, OR MIL-S-38228.

Typical Performance Properties

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

Specific gravity	1.45
Ultimate hardness	48A
% Nonvolatile material	96%

Low temperature flexibility at -65°F (-54°C)	No cracking, or loss of adhesion
Crazing per MIL-S-38228, acrylic	Does not craze
Lap shear strength, Alclad, dry	> 200 psi (1.4 MPa > 95% cohesive failure
Lap shear strength, cadmium plated steel, dry	> 200 psi (1.4 MPa) > 95% cohesive failure

Typical Application Properties

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

Color	
Base	Aluminum (silver gray)
Curing agent	Black
Mixed	Aluminum (silver gray)
Mix ratio	
By weight	100:10 (base/curing agent)
Base viscosity (Brookfield #7@ 2 rpm)	12,000 Poise (1200 Pa·s)
Slump	< 0.2" (5 mm)

	Minimum application time	Extrusion rate at application time (g/min)	Tack-free time (hours)	Cure time to 25A (hours)
B-1/2	30 minutes	20 – 50	< 5	< 15
B-2	2 hours	20 – 40	< 24	< 36

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)

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 2415 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.

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Mixing Instructions

CS 2415 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 2415 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

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This technical data sheet replaces and cancels the previous one.