

CS 3209 Electrically Conductive Class B

Chem Seal

Technical Bulletin
November 2010

PRODUCT DESCRIPTION

Flamemaster Corp

(LM) Specification: STM 40-109 Rev. C

(Cessna) Specification: CMNP094

CS 3209 is an electrically conductive fuel resistant sealant for use on integral fuel tanks and pressurized cabins as well as other areas subject to contact with aircraft fuels, lubricants, oils, water and/or weathering. CS 3209 is a two-part polysulfide base compound which cures at room temperature to a flexible, resilient rubber with excellent adhesion to aluminum, magnesium, titanium, steel, and numerous other materials. CS 3209 will withstand the attack of sulfur compounds that are present in jet fuels.

SURFACE PREPERATION

To obtain good adhesion, the surfaces must be free of all traces of oil, wax, grease, dirt or other contamination. Working in small area segments, wipe the surface using a clean rag doused in an oil free solvent. Before the solvent evaporates, wipe the surface dry with a second clean rag. Maintain a clean solvent supply by pouring the solvent on the washing cloth. CS 3209 will adhere tenaciously to most substrates providing the surface to be sealed is clean and sound.

MIXING INSTRUCTIONS

CS 3209 Parts A and B are matched at the time of manufacture to provide optimum performance when cured. Assure that Parts A and B are combined as recommended on the container label.

When mixing pre-measured, kits do not thin CS 3209 with solvents. Before combining with the Part A component, stir the Part B component until the contents of the container are uniform. Place the entire B component into the Part A container and continue stirring until a uniform gray color. There should be no white or black streaks in the properly blended material. Periodically scrape the sides and bottom of the container as well as the mixing tool to assure proper mixing. When using a mechanical mixer, avoid high speeds since the heat generated will reduce the application time of the mixed CS 3209. Violent stirring will also entrap air in the cured sealant.

When mixing materials packaged in bulk or when only a small quantity is required, stir 10 parts by weight of the Part B component into 100 parts by weight of the Part A

component. Be sure to stir the Part B before weighing out the required amount.

When the material is supplied in two component sectional plastic kits; the instructions printed on the kit package should be followed, instructions are provided for both manual and machine mixing.

Physical and Application Properties are Typical

Color			
Base compound		Off white	
Curing agent		Black	
Mixed compound		Gray	
Mixing ratio			
Weight		100:10	
volume		100:8.3	
Non volatile content		96%	
Viscosity			
Base compound Brookfield			
RVF-Spindle # 7 at 2 RPM		11,000 poises	
Curing agent Brookfield RVF-			
Spindle # 7 at 10 RPM		1000 poises	
Vertical flow		0.30	
Hardness, Shore A		50	
Electrical Resistance		Less than 0.002 OHM/in ²	
Application Properties			
Work Life	Application	Tack Free	Shore A 35
B-1/2	1/2 hour	8 hours	30 hours
B-2	2 hour	24 hours	72 hours
B-4	4 hour	36 hours	90 hours
All test procedures and reference fluids are in accordance with MIL-S-8802F / AS5127 due to variation in composition of Polycarbonate materials adhesion promoter may be required, values are typical.			

CURE

Specified application and cure schedules are based on standard conditions of 75F (27C) and 50% RH; increased temperature and relative humidity will reduce the work life and accelerate the cure. Conversely, lower temperatures and relative humidity will extend the work life and retard the cure. The cure may be accelerated at temperatures not exceeding 140F (55C) , (Note: for every 10-15 degree increase in temperature the application time is reduced by half; for every 10-15 degree drop in temperature it is doubled)

Chem Seal Products

Manufactured By The Flamemaster Corporation

13576 Desmond Street, Pacoima, CA 91331-2315

Phone 818) 890-1401 *** Fax (818) 890-6001 www.flamemaster.com

CS 3209 Electrically Conductive Class B

Chem Seal

Technical Bulletin
November 2010

CLEAN-UP REMOVAL OF CURED MATERIAL

For clean-up as well as removing fresh CS3209, you may use IPA, aromatic solvents CS9900 cleaner. Commercial polysulfide / epoxy strippers are to be used for removal of cured material.

STORAGE LIFE

The storage life of CS 3209 is nine months when stored at temperatures below 80 deg. F in the original unopened containers. Some change in application life, viscosity, and curing rate may occur during this period. However, such changes are slight and in no way effect the end performance of the product. Should a skin appear on the base compound, simply remove and discard the remaining material may then be mixed normally

SAFETY

Read and understand the Material Safety Data Sheet (MSDS) associated with this martial. The MSDS and product container label provided with CS-3209 describe the specific hazards if any associated with this product. The MSDS and the product container label should be utilized in establishing job specific health and safety requirements.

**Emergency Contact Chemtrec 800-424-9300
Outside North America 703-527-3887**

**Keep out of the reach of children
For industrial use only**

PACKAGING AVAILABILITY

Two component plastic cartridges
Pre measured can kits ½ Pint – 1 Gallon
Bulk 5 Gallon pails and 50 Gallon drums
Pre-mixed and frozen cartridges
Contact Flamemaster for specialized packaging

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests 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. User shall rely on his own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his use of the product. Sellers and manufacturers 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.