

CS 5500 CI Class B Corrosion Inhibitive Sealant

Chem Seal

Technical Bulletin
May, 2012

High Temperature Non Chromate Corrosion Inhibitive Sealant

Qualified – FMS-3104 (formerly FMS-3055-1) CS 5500CI Class B

PRODUCT DESCRIPTION

Qualified – FMS-3104 (formerly FMS-3055-1) CS 5500CI Class B (extrudable) is in applications where corrosion inhibition is required and service temperatures of up to 360°F are encountered.

CS 5500 CI is a two part, non chromate, corrosion inhibiting, high temperature resistant fuel tank and fuselage sealant based on Permapol P-5 polymers, an improved chemical modification of Thiokol LP* polymers. Permapol P-5 polymers covered under U.S. Patent 4,623,711. When cured, CS 5500 CI is a flexible, resilient rubber having excellent adhesion to aluminum, magnesium, titanium, steel, SS steel and other materials.

*LP - is a trade name of Morton International

SURFACE PREPARATION

To obtain good adhesion, remove all traces of oil, wax, grease, dirt or other contamination. Wipe with a clean oil free solvent (Mil-C-38736 or MEK/Toluene) a small area at a time. Wiping the cleaned area with a clean rag before the solvent evaporates is usually sufficient for adhesion. Maintain a clean solvent supply by pouring the solvent on the washing cloth. CS 5500 CI will adhere to most substrates, providing the area to be sealed is clean and dry.

MIXING INSTRUCTIONS

Do not thin CS 5500 CI with solvents when mixing pre-measured kits. Mixing full kits, the entire amount of Part A and Part B are mixed.

For partial kits, first thoroughly mix Part B in its container until a smooth past. Stir into 100 parts of Part A, 17 parts of Part B, by weight. Mix thoroughly for seven to ten minutes to obtain an even, uniform gray color with no streaks. Scrape the sides and bottom of the mixing container and scrape down the mixing tool several times to insure proper mixing. When using a mechanical mixer, use low speeds

Application properties

Color	
Base Compound	Gray
Curing Agent	Black
Mixed Compound	Dark Gray
Viscosity	
Fillet Sealing	6,000-16,000 poises
Base Compound	12,000 poises
Curing Agent	1,000 poises
Mixing Ratio	
By Weight	100:17
By Volume	100:14
Vertical Flow	0.3 inch

Fillet-	
Application Life	1/2, 2 or 6 hours
Tack Free	20 hours
Hardness at 72 hrs	45 shore A
Non Volatile	97 %
Faying -	
Application	8 hours (B-48)
Assembly Time	168 hours

Properties Cured Material

Specific Gravity	1.60
Hardness, Ultimate	50 REX

	<u>Elongation</u>	<u>Tensile</u>
Standard cure	250%	500 psi
Standard heat cycle	170%	400 psi
JRF Immersion 7 day 140 ⁰	250%	350 psi
JRF Immersion 8 hrs. 360 ⁰	100%	250 psi

<u>Peel Strength</u>	<u>PIW</u>	<u>%CF</u>
Standard Cure	50	100
7 days at 140 ⁰ F	45	100
Standard Heat Cycle	40	100
T - Peel	30	N/a
Corrosion Resistance		Passes
Low Temperature Flexibility		Passes

Tested to the protocol of AMS3265. Testing performed at standard conditions 77⁰ F 50% RH. Unless otherwise stipulated by the specification.

MATERIAL NOT QPL TO AMS3265

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since a high-speed mixer will generate internal heat thereby reducing the application life. Violent stirring also entraps air in the mixed CS 5500 CI.

APPLICATION INSTRUCTIONS

Application of CS 5500 CI Class B is with a pressure gun or spatula.

STORAGE LIFE

The storage life of CS 5500 CI is nine months minimum (**FMS specification 6 months from receipt**) when stored at temperatures below 80°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 affect the end performance of the product.

CLEANING OF EQUIPMENT

For clean up prior to use, and also to remove partially cured CS 5500 CI use MEK/Toluene cleaner. Cured CS 5500 CI will require a soaking period in epoxy polysulfide stripper.

SAFETY

The uncured combined components may produce irritation following the contact with the skin. When handling CS 5500 CI avoid ingestion and all contact with the body especially open breaks in the skin. Always wash hands before eating or smoking. Obtain medical attention in case of extreme exposure or ingestion. For additional information see the Material Safety Data Sheet.

Flamemaster supplied aviation fuel tank sealants and coating materials are tested for compatibility with reference fluids and fuels as specified by the applicable specification. Flamemaster does not warranty the performance of fuel tank sealants or coatings subjected to fluids or fuels other than those specified by the applicable specification." "It is the responsibility of the user to determine the suitability for use utilizing the information contained in the applicable specification.

PACKAGING

CS 5500 CI is packaged in the following kit sizes:

24 ea. per case	2 1/2 oz. and 6 oz. cartridges
16 ea. per case	Pint Kit
16 ea. per case	Quart Kit
4 ea. per case	Gallon Kit

CS 5500 CI is also available in 5-Gallon and 50 Gallon Drum Kits.

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 test are not guaranteed and are not to be construed as a warranty, either expressed or implied. 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. 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 the 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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www.flamemaster.com

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