# **CS 5310 Polythioether Sealant**

# Chem Seal

Technical Bulletin January, 2002

### DESCRIPTION meets AMS 3277, Type I and Mil-S-29574

CS 5310 is recommended for sealing on aircraft to yield weather tightness and fuel resistant seals. CS 5310 is a non-flow material and may be utilized on vertical and overhead surfaces. CS 5310 is a thixotropic grade fuel resistant sealant.

CS 5310 is a two-part sealant based on Permapol P-3 polymers covered under U.S. Patent 4,366,307. When cured CS 5310 is a flexible, resilient rubber which has excellent adhesion to aluminum, magnesium, and titanium. Most surfaces require CS 5310 primer for optimum adhesion.

#### SURFACE PREPARATION

To obtain good adhesion, remove all traces of oil, wax, grease, dirt, or other contamination. This is done by wiping with a clean oil free solvent. Clean only small areas at one time and wipe dry with a clean cloth before the solvent evaporates. Maintain a clean solvent supply. Apply CS 5310 primer and let air-dry for 30 minutes before applying sealant. Color Base Compound, Part A White Curing Agent, Part B Black Non-Volatile Content, Minimum 98% Viscosity: Base Compound (Brookfield Spindle #7 @ 2 RPM) 12,000 poises Curing Agent 1,000 poises Mixing Ratio by WT & VOL. 100:8.5 Vertical Flow (per AMS-S-8802) Max. 0.5 Inch Application Life, Tack Free and Cure Time (77 °F and 50% Relative Humidity)

APPLICATION	TACK FREE	CURE TIME
LIFE	TIME	25 Shore A
2 HOURS	12 HOURS	30 HOURS

#### MIXING INSTRUCTIONS

Material is packaged in 6 oz. (3.5 oz. fill) and 2 1/2 oz. (2 ounce fill) cartridge kits only. CS 5310 primer is included with each kit.

#### **APPLICATION INSTRUCTIONS**

CS 5310 may be applied with a pressure gun or a spatula within the specified application life. Specified application lives are based on the standard condition of 77°F and 50% relative humidity.

# CURE

The cure period is dependent on the application life and temperature. Cure may be accelerated by heating up to 160°F.

#### STORAGE LIFE

The storage life of CS 5310 is one-year minimum 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 effect the end performance of the product.

1 of 2

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# **CLEANING OF EQUIPMENT**

Tools and equipment may be cleaned prior to cure by the use of Deso-clean 45; Mil-C-38726 cleaner or equivalent. Cured CS 5310 may be removed by soaking in Epoxy and/or Polysulfide stripper.

# **HEALTH PRECAUTIONS**

The uncured combined components may produce irritation following contact with the skin. When handling CS 5310 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. Refer to the applicable Material Safety Data Sheet prior to using this product.

# **PACKAGING**

CS 5310 is packaged in barrier kits only.

24 ea. Per case 2 fl. oz. in 2 1/2 oz. cartridge 3.5 fl. oz. in 6 oz. cartridge

Color	Gray		
Specific Gravity	1.48		
Hardness, Shore A	60		
Tensile Strength	400 PSI		
Elongation	350%		
Temperature Range	Operatir	ng	+400°F
Low Temp. Flexibility		-80°F	
Fungus Resistance	.)	N	on-Nutrient
Adhesion (lbs/in. of	f width)*		
Alc	lad	45 PIW	
Stai	nless Steel	45 PIW	
Tita	nium	45 PIW	
*CS 5310 Primer			
Repairability	Excellen	t	
Cures at	-60°F		
Corrosion Resistant	ce		Excellent
Resistance to Hydro	ocarbons		
AMS 2629			Excellent

Excellent Resistance to water, alcohol, petroleum and synthetic lubrication oils, and petroleum Based hydraulic fluids.

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 warrant, 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 buyer or 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.