CS 3210 Low Density Sealant

Chem Seal

Technical Bulletin
August 2010

PRODUCT DESCRIPTION

Qualified STM 40-107F Class B

CS 3210 is a two-part, polysulfide based compound that cures at room temperature to a flexible, resilient, low-density rubber with excellent adhesion to aluminum treated and untreated, composites and numerous other substrates. Cured CS 3210 has resistance to effects of fuels, oils, salts and distilled water or weathering and will retain its flexibility at low temperatures. CS 3210 has a specific gravity of 1.00, which can result in substantial weight savings over conventional sealants.

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.

MIXING INSTRUCTIONS

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 at the recommended ratio printed on the container label. Do not thin CS 3210 prior to combining Parts A and B. Before combining parts A and B stir the Part B component until the contents of the container are uniform. Place all of the B component into the Part A container and continue stirring until a uniform gray color is achieved. 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 3210. Violent stirring will also entrap air in the cured sealant. Mixing instructions for plastic injection kits are provided on the packaging. When mixing materials packaged in bulk or when only a small quantity is required, stir 12 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 prior to weighing out the required amount.

CURE

Specified application and cure schedules are based on the standard conditions of 77°F and 50% relative humidity. Increased temperature and relative humidity will reduce the work life and speed up the cure while reduced temperatures and relative humidity will extend the work life and slow the cure. Cure may be accelerated by heating up to 120°F. However care must be exercised to avoid the entrapment of solvent when heat is applied.

Application Properties

Color: Base compound	Part A Gray
Curing Agent	Part B Black
Non-volatile Content, Minimum	90%
Viscosity: Base Compound (Brookfield Spindle #7 @2 rpm)	9000 Poises
Mixing Ratio (by weight)	100:12

Application Life, Tack Free, & Cure Time (77 deg. F and 50% Relative Humidity)

Application Life	Tack Free Time
B-1/2 1/2 hour	10Hours
B-2 2 hours	24 Hours

Curing rate

B-1/2	Shore 35 - 60	30
B-2	Shore 35 - 60	48

Technical Properties

Color: Mixed	Black
Specific Gravity	1.00
Hardness, Shore A	50
Tensile Strength	180 PSI
Elongation	220%
Temperature Range	-65°F to +250°F
Low Temperature Flexibility	-65°F
Fungus Resistance	Non-nutrient
Adhesion (lbs/in of width	
Standard Cure	25 PIW
3% Salt Water	33 PIW
Repair Ability (per Mil-S-8802)	Excellent
Corrosion Resistance	Excellent
Resistance to Fuel	Excellent
JRF 7 days @ 140°F	30 PIW
Fluid Resistance: water, alcohol, petroleum and synthetic lubrication oils, petroleum based hydraulic fluids	Excellent

Application and technical properties using test methods contained in STM40-104 (4.8 Test Methods)

Chem Seal Products
Manufactured By The Flamemaster Corporation
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APPLICATION

The work life of CS 3210 is indicated by the number following the class designation and varies from *1/4 hour to 4 hours. Work life is The work life of CS 3210 is indicated by the number following the class designation and varies from *1/4 hour to 4 hours. Work life is the minimum amount of time the material will maintain its application properties.

SAFETY

Read and understand the Material Safety Data Sheet (MSDS) associated with this product prior to using the material.

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

Keep out of the reach of children
For industrial use only

CLEAN UP

For surface preparation as well as removing fresh CS 3210, you may use alcohol or aromatic solvents. Recommended are commercial polysulfide / epoxy strippers for removal of cured CS 3210

STORAGE / SHELF LIFE

The storage life of CS 3210 is nine months when stored in the original unopened containers at temperatures below 80°F. Some change in work 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.

PACKAGING AVAILIBILITY

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

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