

CS 91 Epoxy Sealing Compound

Chem Seal

Technical Bulletin
December 2010

PRODUCT DESCRIPTION

meets STM40-601

CS 91 is a 100% Solids, Modified Epoxy sealing compound suitable for sealing and moisture proofing adhesive bonded structures (edge sealing of honeycomb) when applied by injection, spatula or brushing. CS 91 consists of two parts, a base compound and a catalyst which when mixed together cure at ordinary room temperature to a high strength resilient sealing compound. CS 91 is available in three types:

TYPE I	BRUSH CONSISTENCY - LOW VISCOSITY
TYPE II	POUR CONSISTENCY - MEDIUM VISCOSITY
TYPE III	NON-SAG CONSISTENCY - HIGH VISCOSITY

SURFACE PREPARATION

Aluminum and composite surfaces should be sanded and free of oil, grease and other contaminants before application of CS91.

MIXING INSTRUCTIONS

CS 91 consists of two components a base compound Part A and a catalyst Part B. Add the catalyst, Part B, to the base compound, Part A and mix until no streaks of unmixed base compound or catalyst are visible. The temperature during mixing should be below 75°F, as higher temperatures would reduce the application life of the mixture.

APPLICATION

CS 91 is used during the construction of or repair to adhesive bonded structures. CS91 is used for both edge and surface sealing.

CURE

Specified application and cure schedules are based on standard conditions of 77°F and 50% relative humidity. Increased temperature will reduce the work life and speed up the cure while reduced temperature will extend the work life and slow the cure.

CLEAN-UP REMOVAL OF CURED MATERIAL

For clean-up as well as removing fresh CS91, you may use IPA, aromatic solvents CS9900 cleaner. For removal of cured CS91 use commercial epoxy strippers.

Physical and Application Properties are Typical

Application Properties			
	Viscosity		
TYPE-I Brushable	Part A	20 to 100 Poises	
	Part B	100 to 200 Poises	
TYPE-II Pourable	Part A	200 to 400 Poises	
	Part B	75 to 200 Poises	
TYPE-III Non-Sag	Part A	30,000 to 50,000 poises	
	Part B	6,000 to 16,000 poises	
	Color		
Part - A	Off – White		
Part - B	Off – White to Pink		
Application Life	1 -1/2 Hours minimum When mixed in 200 g quantities		
Tack Free Time	20 hours at 77 deg. F and 50% RH		
Flow	Type III, less than 0.75 inches		
	Mix Ratio A : B		
TYPE - I	100:80		
TYPE – II	100:70		
TYPE – III	100:30		
Physical Properties			
Immersion medium	At 77 ^o .F	At 144 ^o .F	Deterioration
Water	6 Months	6 Months	None
Salt water	6 Months	6 Months	None
HCl 35%	6 Months	--	None
H ₂ SO ₄ 17%	6 Months	3 Months	None
H ₂ SO ₄ 10%	3 Months	3 Months	None
H ₃ PO ₄	3 Months	--	None
C ₆ H ₈ O ₇ 25%	6 Months	3 Months	None
NH ₃ (aq) 27%	6 Months	--	None
FeCl ₃ 42%	3 Months	--	None
Gasoline	6 Months	3 Months	None
JRF	6 months	3 months	None
Skydrol 500	2 Months	1 Month	None

STORAGE LIFE

The storage life of CS91 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.

Chem Seal Products

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SAFETY

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

**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

Contact Flamemaster for specialized packaging

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