

Chem-Set™ 412 Specialty Silicone Coating

PRODUCT DESCRIPTION

Chem-Set™ 412 is a medium viscosity, two component, addition cure silicone elastomer.

KEY FEATURES

- Medium viscosity
- Fast cure RT cure
- Low linear shrinkage
- Transparent



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TYPICAL PROPERTIES

UNCATALYZED		
TEST	CHEMSET™ 412A	CHEMSET™ 412B
Appearance	Translucent	Transparent
Viscosity	4,550 cps	5,200
Specific Gravity	1.00 g/cm ³	1.00 g/cm ³

CATALYZED	
MIX RATIO 1:1 BY WEIGHT	
PROPERTY	RESULT
Gel Time at 25C*	28 minutes

*Gel time is defined as the time required for the material to become a solid or a semi-solid.

CURED PROPERTIES	
30 MINUTES AT 150C	
PROPERTY	RESULT
Durometer, Shore A	40
Tensile	650 psi
Elongation	150%

ADDITIONAL PROPERTIES	
Thermal Conductivity	0.18 W/mK
Refractive Index	1.40
Useful Temperature Range	-50 – 200C

FOR CHEMICAL EMERGENCIES: PLEASE CONTACT: 800-535-5053

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CURE CHARACTERISTICS

Chemset 412A is catalyzed with Chemset 412B at a 1:1 ratio by weight. In order to achieve optimum performance the same lot number of Chemset 412A and Chemset 412B should be used.

The curing process begins as soon as the catalyst is mixed with the base. The material will cure as described in the data above under normal temperature (25C). Because this system is sensitive to heat cure speed will increase with increased temperature. In addition, if the product is to be used with aggressive resins such as high styrene polyester resin, it is recommended that the rubber be allowed to cure for 48 hours.

MIXING

Chemset™ recommends that the catalyzed material be tested on a small area of the mold prior to use.

Combine one part of Chemset 412A with one part of Chemset 412B by weight into a clean, compatible container. The volume of the container should be 3-4 times the volume of the material to be mixed. Mix by hand or with mixing equipment until a homogeneous mixture is obtained. When hand mixing; accurate weighing of components on a suitable scale is essential for optimal product performance.

DE-AERATION

Air trapped during mixing should be removed by vacuum at 29 inches of mercury. During the process the material will expand and intermittent evacuation may be required. Typically after releasing the vacuum 2-3 times the mass will collapse on itself at which time the vacuum should be left on for an additional 2-4 minutes.

Machine mixed material does not normally need to be de-aired.

STORAGE AND SHELF LIFE

If Chemset 412A and Chemset 412B are stored in an environment that does not exceed 25C (77F) then Chemset 412 will warranty the material for a period of one year from the date of shipment

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