

Set-Sil 8493 Thixotropic Silicone

Set-Sil 8493 is a high tear strength, thixotropic, two-component, tin catalyzed RTV silicone rubber. It is designed for casting polyurethane, polyester and epoxy parts. **Set-Sil 8493** is useful for applications where a non-flowing, non-sagging rubber is needed. It is an excellent product with the following advantages over other RTV silicones:

High tear strength - **Set-Sil 8493** is especially good for molds with deep undercuts and for those molds which require continuous or repeated flexing for part removal.

Low shrinkage - **Set-Sil 8493** offers exceptional reproduction capability. It is particularly valuable in the production of many-sided molds where exact registrations are required.

Excellent chemical resistance - **Set-Sil 8493** exhibits extremely long mold life due to unique processing techniques that were developed to meet the rigors of polyester and polyurethane casting.

Excellent shelf aging - **Set-Sil 8493** retains its dimensional stability and resists embrittlement upon aging.

High Thixotropy - **Set-Sil 8493** has a high thixotropic index, which means that it flows very little and is suitable for vertical or upright applications.

Long Pot Life - **Set-Sil 8493** gives good overnight cure despite having a working time of over one hour. In addition, it is relatively insensitive to temperature and humidity fluctuations.

Variable cure rate Several activators are available for unique or unusual applications.

Insensitive to inhibition - **Set-Sil 8493** is not inhibited by most common mold-making substrates, eliminating the need to use mold sealers.

Low Cost - **Set-Sil 8493** has a low specific gravity which means less of it is required than RTVs with a higher specific gravity. When the long mold life is combined with the low specific gravity, **Set-Sil 8493** is a cost effective, high performance RTV silicone rubber.

APPLICATIONS

Set-Sil 8493 is recommended for casting polyesters, polyurethanes, waxes, gypsum, concrete, epoxies and other plastics. It is useful for upright applications where little or no flow is required.

SEE BACK OF TECHNICAL DATA SHEET FOR WARRANTY.

TYPICAL PROPERTIES

Uncatalyzed Properties

	<u>Base</u>	<u>Activator</u>
Color	Off-white	Colorless
Viscosity (cps)	N.A. (paste-like)	350
Specific Gravity	1.10	.99
Working Time (minimum)	1.0 to 1.5 hours	
Cure Time	16 to 18 hours	
Shelf Life	6 months	

Cured Rubber (7 days @ 70° F & 50% R.H.)

Hardness, Shore A	30 ± 4
Tensile Strength (ASTM D412)	475 ± 25 psi
Elongation (ASTM D412)	275 ± 25%
Tear, Die B (ASTM D624)	100 ± 10 ppi
Shrinkage	0.1%
Specific Gravity	1.10

MIXING INSTRUCTIONS

Mix 10 parts by weight of **Set-Sil 8493** base with 1 part by weight of **Set-Sil 8493** activator in a container that will hold approximately three times the volume being used. Stir thoroughly either by hand or by mechanical mixing until thoroughly combined (the activator is colorless, so extra care must be taken to mix the two parts completely.) If desired, the material may be deaired in a vacuum chamber capable of 28 inches of mercury vacuum. The material will expand to double or triple its original volume and then collapse. Maintain vacuum for an additional minute and release. (However, due to its thixotropic nature, deairing may be unnecessary.) Carefully apply the catalyzed silicone rubber to the released pattern with a spatula, trowel, or brush. Allow to cure for 16 to 18 hours.

Warranty

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