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RTV-2 Silicones Since 1974

Product Information

XP-643 Silicone Rubber

Description

XP-643 silicone rubber is a two-component, addition reaction, platinum catalyzed system that cures at room temperature. It has a moderate durometer, high elongation, superb physical properties, excellent release and good chemical resistance.

Mixing Instructions

Mix 10 parts by weight of XP-643 base with 1 part by weight of XP-643 activator in a container that will hold approximately 3 to 4 times the volume being used. Stir thoroughly either by hand or by mechanical mixing. Immediately after mixing, place the material in a vacuum chamber capable of 28 to 29 inches of mercury vacuum. The material will expand to double or triple its original volume and then collapse. Maintain vacuum for an additional 2 to 3 minutes and remove. Carefully pour the catalyzed silicone rubber over the released pattern (MR-15 is recommended.)

Cure Sensitivity

XP-643 may have its cure inhibited at the interface between the mold and the master. Models that have come in contact with tin catalyzed rubbers (the GI-Series) may show cure inhibition at the face of the mold. This can usually be prevented by thoroughly cleaning the model with naphtha or methylene chloride, releasing and checking the area by brushing on a small amount of catalyzed XP-643 rubber. After 24 hours this film must be cured and non-sticky. In the event that the contamination still exists, the model should be cleaned again and a thin film of acrylic or nitrocellulose lacquer or base coat should be applied. This should serve as a barrier coat and allow a completely cured mold to be prepared. Other substrates such as clay containing sulfur or any other sulfur, amine, or tin contaminated materials will cause surface inhibition and in all cases a test should be run as outlined above to determine compatibility.

Typical Properties

Color of Base	Off White	Tear strength, ppi	140 ± 10
Color of Activator	Blue	Tensile strength, psi	725 ± 50
Viscosity, mixed, cps	25,000	Elongation, %	700 ± 25
Specific gravity	1.13	Shrinkage, %	Nil
Working time, hours	1	Shelf Life (months)	6
Shore A hardness	40 ± 4		

The information contained in this product information sheet is based on sources believed to be accurate. It is offered in good faith, but without guarantee since the conditions of use are beyond our control. All risks of use are assumed by the user.