



Silicone Technologies, LLC

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ISO 9001:2000 Certified

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PRODUCT

P-RTV45 Kit

Product Description

CRI-SIL P-RTV45 Silicone Rubber is a two-component, addition-cure, platinum-catalyzed compound. It is a tough material with good physical properties.

CRI-SIL P-RTV45 Mold Making (Platinum Catalyzed)

Platinum cure (addition) silicones are extremely pure and can produce very accurate molds that last indefinitely. Among many other things, they can be used for medical and theatrical prosthetics, medical equipment, cookware, candy molds, and baby bottle nipples.

Addition cure two-component silicone rubbers offer superior heat resistance and virtually no shrinkage during cure. Although the CRI-SIL P-RTV45 rubber can be inhibited by tin, sulphur or amines, it can be cured in total confinement, and the cure rate can be dramatically accelerated with heat.

Additional Benefits - Platinum vs. Tin cure

CRI-SIL P-RTV45 Series Silicone is preferred because on curing, it has minimal shrink and does not produce alcohol that is normally associated with tin-catalyzed silicones. Alcohol can inhibit urethane castings. Another added benefit of platinum is that unlike Tin cure (condensation) silicones which are commonly used as a mold making material for art and industry, Tin Cure is not normally approved for long term contact with the skin, or for cookware or other food contact.

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Product Base	CRI-SIL P-RTV45A
Color	Translucent
Viscosity, cps	5000
Specific Gravity	1.02
Catalyst	CRI-SIL P-RTV45B
Color	Translucent
Viscosity, cps	1000
Specific Gravity	1.01
Mix Ratio, wt:wt	10:1
Catalyzed Properties	
Viscosity, cps	4000
Worklife, hrs.	2
Potlife, hrs.	3
Demold time, hrs.	18-24
Shore A, 36 hrs.	45
Tensile, psi	890
Elongation, %	160
Service Temperature(C)(F)	-60/200 (-75/392)
Linear Shrinkage, %	< 0.2
Shelf Life, months	12

Pattern Characteristics	
Simple, No undercuts	X
Complex, some undercuts	O
Complex, deep undercuts	O
Vertical surfaces	
Compatibility with casting materials	
Polyesters	O
Polyurethane, Rigid	X
Polyurethane, Foam	X
Epoxies	O
Low melt metals	O
Wax	O

Deaeration

Air entrapped during mixing should be removed to eliminate voids in the cured product. Expose the mixed material to a vacuum of about 29 in. of mercury. The material will expand, crest, and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing ceases.

Food Molding

Ice, chocolate, other candy and specialty foods can be cast or molded into specialty decorative shapes by using silicone rubber mold making materials. These rubbers, when properly cured and cleansed, are acceptable for food contact in accordance with the requirements of FDA Regulation 21 CFR 177.2600, subject to end-user compliance with any applicable total extractives limitations. This regulation covers rubber articles intended for repeated use. This FDA regulation is valid for the US only; local regulatory requirements should be taken into consideration for Europe and Asia.

Product Usage Compatibility