SILPAK R-2240

Clear Platinum Base Addition Cure RTV

R-2240 A/B—40 A Shore *Clear* Platinum Base (Addition Cure), two-component, room temperature curing (RTV) silicone rubber. The controlled coefficient of thermal expansion makes it ideal for casting pressure pads or to be used as an advanced composite tooling rubber. R-2230 A/B RTV is great for mold tooling where precise parting lines need to be cut or to use as a visual aid for injecting resin.

Features

- Room temperature curing (RTV)
- Controlled Coefficient of Thermal Expansion
- Clear

Applications

Use molds to cast polyester, urethane, epoxy, low melt metal (600°F), thermoplastics (Polyvinyl), wax, soap, plaster, and any material where a release free casting is required. Use for mold making, embedding, electrical applications, thermal expanding tools, and clear part fabrication. Use mold for any material where a release free casting is required:

- Polyester
- Urethane
- Epoxy
- Soap
- Low melt metal (600°F)
- Thermoplastics (polyvinyl)
- Wax
- Plaster

Physical and Handling Properties

Property	Value
Color	Clear Base / Clear Activator
Mix Ratio, by weight	10 Base : 1 Activator
Mix ratio by volume	10 Base : 1 Activator
Initial Viscosity, Base, cP	
Initial Viscosity, Activator, cP	
Initial Mixed Viscosity, at 77°F, cP	40,000
Hardness, Shore A	40
Gel Time, min	
Demold Time, hours	
Specific Gravity	1.08
Tensile Strength, psi	640
Elongation, %	320
Tear Strength, pli	100
Shrinkage, in/in	
Thermal Conductivity BTU-FT F	1.5^{2}
Coefficient of Thermal Expansion (in/in/F)	3.18×10^{-4}

Values listed above are typical and not intended for use in specifications.

Mixing
The base and activator are mixed just before using. **Part B should be shaken prior to use.** Carefully weigh Part A and Part B by appropriate Mix Ratio. Automatic mixing equipment or manual mixing may be used to combine base and curing agent. Since material is clear, a double mix—mixing in one container then transferring to another and re-mixing—is recommended to ensure a thorough mix. De-airing (degassing) material is always recommended.

Curing
Immediately after mixing, place the material in a vacuum chamber to remove trapped air and allow enough room for expansion as vacuum is drawn, as much as four times its original volume. Remove from vacuum chamber and pour very gently into cavity so as not to re-incorporate air into the material. Pressure casting (50-60 psi) until cured has proven well in eliminating air bubbles. After the mold (or part) has been removed from the master, it should be left for 24 hours in order to develop its maximum mechanical strength.

Inhibition
Certain materials will cause inhibition or neutralizing of the activator. These materials are sulfur and organo-metallic salt containing compounds found in organic rubbers and many condensation cure RTVs, chloride solvents – amines. Avoid using latex gloves, water-based clays and Tin/Condensation cured RTVs. Inhibition may easily be determined by brushing a small quantity of this material over the surface and allowing it to cure. If material remains tacky and gummy after the curing time, then the part's surface is acting as an inhibitor. **See Addition Cure Technical Data Sheet for inhibiting materials.

Curing Chart

TEMPERATURE	POT LIFE	CURE TIME
100 F	30 MIN	2 HOURS
150 F	10 MIN	30 MIN
300 F	----	5 MIN

Storage & Shelf Life
Base and Activator must be stored in their original, unopened containers at temperatures between 60-90F. Shelf life of materials when kept in unopened, sealed containers, at the recommended storage conditions, is 6 months.