



High Performance Mold Making Silicone - *Platinum Cure* Advanced Grade

DESCRIPTION

Advanced technology, room temperature curing, high performing, silicone rubber compounds designed for the manufacture of flexible molds.

BENEFITS

- Advanced release properties
- Durometer range – one base/three catalysts
- Good chemical resistance
- Long library life
- Low viscosity
- Nil shrinkage
- Production molds of any size

APPLICATIONS

- Candle & Soap Molds
- Cast parts
- Concrete Casting
- High tolerances applications or when multiple molded pieces must fit together
- Hobby & Art Projects
- Medical Modeling
- Model Making
- Prosthetic Devices
- Rapid Prototyping
- Rollers
- Silicone Print Pads
- Sculpture & Figurines
- Special Effects

TYPICAL PROPERTIES*			
Bases	GT-40P	GT-50P	GT-60P
Color	Beige	Beige	Beige
Viscosity (cPs)	50,000	53,000	53,000
Specific Gravity	1.35	1.32	1.32
Catalyst	CA-40P	CA-50P	CA-60P
Color	Yellow	Red	Blue
Viscosity (cPs)	5,000	3,300	3,300
Specific Gravity	1.1	1.0	1.0
Mixed Viscosity (cPs)	25,000	38,000	35,000
Mixed Specific Gravity	1.33	1.28	1.29
Work Time	45-90 mins	60-90 mins	60-90 mins
After Cure (24 hrs @ 25 C)			
Tensile, psi	800	700	970
Elongation, %	450	160	110
Durometer (Shore A)	40	50	60
Tear (die B) minimum	125	110	130
Suggested Usage Ratio	10:1	10:1	10:1
Useful Temperature Range C (F)	-60 - 232 C (-75 - 450 F)		

* These properties are not intended to be used as specifications but only as suggested characteristics



High Performance Mold Making Silicone - *Platinum Cure* **Advanced Grade**

MIXING

Because pigments can settle during storage, The corresponding catalyst should be thoroughly stirred before mixing. Use separate tools for mixing the base and catalyst to avoid cross contamination. Accurate weighing is essential to obtain maximum physical properties from the cured silicone. Add the catalyst to the base and mix until the color is uniform. Low shear mixing of the mixture is recommended. Use clean tools and scrape the bottom and sides of the container to assure a homogeneous mixture. Avoid stirring in an excessive amount of air.

ACCELERATING

GT High Performance Platinum Mold Making Silicone can be accelerated with heat. Rule of thumb is for every 10 degrees above 75 F the cure time is cut in half. Example: 16-hour cure at 85 F will be 8 hours, at 95 F will be 4 hours, etc.

DEGASSING

Air entrapped during mixing should be removed to prevent voids in the cured product. De-air the mixed material under a vacuum of 25 mm (29 inches) of mercury. The mixture will froth and expand four times its volume, crest and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing subsides.

CURING

GT High Performance Mold Making Silicone kits will cure sufficiently in 16 hours at room temperature (72 F) to be handled. They will reach 90% of ultimate cure in 24 hours at room temperature. For full cure an additional 1-2 days at room temperature is required.

SHELF LIFE

GT High Performance Mold Making Silicone kits will remain useful for six months when stored in the original unopened containers at temperatures below 80 F (27 C).

CURE INHIBITION

Platinum cure silicone rubber can be contaminated resulting in surface inhibition which is a tackiness on the surface of the rubber or in the extreme case throughout the entire mold. Contaminants to avoid include tin cure silicone, latex, sulfur clays, some epoxies and polyurethane rubbers, powder on gloves, polyester resin, and some wood surfaces. We recommend a mini test area on the model before making the entire project.