



High Performance Mold Making Silicone - Platinum Cure Translucent Grades

DESCRIPTION

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

BENEFITS

- Advanced release properties
- Durometer range
- Good chemical resistance
- Long library life
- Low viscosity
- Minimal shrinkage
- 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-6406A	GT-2135	GT-2241T	GT-6595			
Color	Translucent	Translucent	Translucent	Translucent			
Viscosity (cPs)	63,000	104,000	150,000	30,000			
Specific Gravity	1.1	1.11	1.1	1.1			
Catalyst	GT-6406B	CA-2135	CA-2241T	CA-6595	CA-6596	CA-6597	
Color	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent
Viscosity (cPs)	30,000	1,000	724	1,000	1,000	1,000	
Specific Gravity	1.1	1.0	1.0	1.0	1.0	1.0	
Mixed Viscosity (cPs)	46,000	85,000	130,000	22,000	22,000	22,000	
Mixed Specific Gravity	1.1	1.0	1.1	1.0	1.0	1.0	
Work Time	45-90 mins	60-90 mins	60-90 mins	60-90 mins	60-90 mins	60-90 mins	
After Cure (24 hrs @ 25 C)			@ 25 C	Heat Cure	After Cure (24 hrs @ 25 C)		
Tensile, psi	400	850	750	850	850	990	840
Elongation, %	300	400	350	350	570	675	725
Durometer (Shore A)	20	35	40-45	45	25	20	15
Tear (die B) minimum	70	120	140	150	105	130	170
Linear Shrinkage; %	nil	nil	nil		nil	nil	nil
Useful Temperature Range C (F)	-60 - 232 C / (-75 - 450 F)						
Suggested Usage Ratio	1:1	10:1	10:1		10:1	10:1	10:1

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



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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.

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.

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.

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.