Platinum Cure Silicone Rubber

Product description

MBSIL-P series silicones are two compounds, liquid, with the mixing ratio of 1:1 (or 10:1) , it's also called addition cured silicone rubber that have exceptional tear strength and working properties, cured in room temperature. There are a wide range of applications for MBSIL-P series platinum silicone rubber.

1. Industry mold making : plaster, gypsum, concrete, stones, wax, jewelry, polyurethane, polyester resin etc.
2. Food grade mold making: cake ,candy ,chocolate etc.

Features

- Outstanding release properties
- Amazing fluidity and easy to operate
- Platinum-based, food-grade silicone (environmental, odorless and nontoxic)
- Delicate design available
- Mixing ration: 1:1 for easy operation
- Easy de-molding
- Excellent tension and tear strength
- High performance in duplication
- No shrinkage on the cured mold
- Excellent resistance to weather, temperature, aging, acid & aging-Proofing.

- High resistance to high temperature and aging(resist -60 to 250°C)

Applications

Due to its good characters and excellent performances , MBSIL-P series silicone is with a wide range of applications as below:

- Industry mold making : plaster ,gypsum, concrete, stones, wax, jewelry, polyurethane ,polyester resin ,jewelry etc.
- Food grade mold making: cake ,candy ,chocolate etc.
- Life casting: human body , human mask, etc.
- Silicone products: Prosthetic limbs, silicone insoles, silicone doll, sexy doll, etc.

Technical Data Sheet

Model Code	MBSIL-P00	MBSIL-P5	MBSIL-P10	MBSIL-P15	MBSIL-P20	MBSIL-P25	MBSIL-P30	MBSIL-P35	MBSIL-P40
Hardness-Shore A	0	3-5	8-10	14-16	18-20	24-26	28-30	34-36	38-42
Viscosity - Cps	1500-2200/6000-7000	1500-2200/6000-7000	1500-2200	2000-3000	2000-3000	2000-3000	4000-5000	6000-8000	8000-10000
Mixing Ratio - %	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1 or 10:1
Tear Strength - KN/m2	5-6/7-9	7-9/10-12	15-18	16-19	20-23	23-25	20-23	18-22	14-17
Tensile Strength - Mpa	2-3	2.5-3.5	3.5-4.5	3.5-4.5	4-6	4-6	4-6	4-6	3.5-5.5
Shrinkage - %	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Elongation - %	500-600%	650-850%	600-800%	600-800%	500-600%	400-500%	400-500%	400-500%	350-450%

Note: 1. The data are based on the operation under room temperature of 25 ℃.

2. Pot life and curing time can be adjusted.
3. Different Colors of base silicone are available, such as red, pink, green, blue, yellow and so on.

How to use

1. Substrate Preparation

The surface of the original should be clean and free of loose material. If necessary, and in particular with porous substrates, use a suitable release agent such as petroleum jelly or soap solution.

2. Mixing

Thoroughly stir Part A (silicone base) before use as filler separation may occur upon prolonged storage.
Weigh 100 grams Part A (silicone base) and 100 grams Part B (curing agent) in a clean container. Mix together until the curing agent is completely dispersed in the base. Hand or mechanical mixing can be used, but do not mix for an extended period of time or allow the temperature to exceed 35°C (95°F). Mix suitably small quantities to ensure thorough mixing of the par A (silicone base) and part B (curing agent).

It is strongly recommended that entrapped air be removed in a vacuum chamber, allowing the mix to completely expand and then collapse. After a further 1-2 minutes under vacuum, the mix should be inspected and can be used if free of air bubbles. A volume increase of 3-5 times will occur on vacuum de-airing the mixture, so a suitably large container should be chosen.

Caution: prolonged vacuum will remove volatile components from the mix and may result in poor thick section cure and non-typical properties.
Note: If no vacuum de-airing equipment is available, air entrapment can be minimized by mixing a small quantity of par A (silicone base) and part B (curing agent), then using a brush, painting the original with a 1-2mm layer. Leave at room temperature until the surface is bubble free and the layer has begun to cure. Mix a further quantity of base and curing agent and proceed as follows to produce a final mold.

3. Pouring the Mixture and Curing

Pour the mixed par A (silicone base) and part B (curing agent) as soon as possible onto the original, avoiding air entrapment. The catalyzed material will cure to a flexible rubber

within 24 hours at room temperature (22°C-24°C/ 71.6°F - 75.2°F) and the mold can then be separated from the original. If the working temperature is significantly lower, the cure time will be longer. If the room temperature or humidity is very high, the working time of the catalyzed mixture will be reduced. The final mechanical properties of the mold will be reached within 7 days.

Shelf life

Twelve(12) months from date of shipment when stored at 25 °C in the original sealed packages.

Package

Part A :Packed in clean 20kg/pail, 25kg/pail, 200kg/drum.
Part B :Packed in clean 20kg/pail, 25kg/pail, 200kg/drum.

Health and safety

1. Avoid contact with eyes. Flush eyes with water and seek medical attention. Remove from skin with waterless hand cleaner followed by soap and water. Children should not use this product without adult supervision.

2. MBSIL-P series is a platinum cure silicone, which is very easy to cause cure inhibition , so please do remember thoroughly clean the model and tool before operation .

Warm tips :

As platinum cure silicone is very sensitive, please avoid to mixing with the following materials, otherwise the silicone won't be cured :

A. Do not mix with liquid condensation silicone rubber or even the tool which used for condensation silicone.
B. Do not mix with organic matter which contains N, S, P organics and ionic compound like Sn, As,Hg, Ph,
C. Do not add any pigment or powder into the platinum cure silicone without testing.