

## TC-5050 A/B

### 50 SHORE A

### ROOM TEMPERATURE CURING SILICONE

TC-5050 A/B is a room temperature, addition/platinum curing silicone rubber designed for mold making, encapsulation applications, pressure pads, gaskets, and various types of parts. It is also used to make molds for casting low melting metals into. With the use of talc powder as an interface the TC-5050 A/B has been used in production with cast metal temperatures running 650°F (344°C) and has been subject to temperatures up to 850°F (454°C) for making a limited number of casts. With the ability to withstand high temperatures the TC-5050 A/B works very well as a mask for metal spraying and welding operations.

| PHYSICAL PROPERTIES                          | TEST METHOD           | RESULTS                 |
|--|-----------------------|-------------------------|
| Hardness, Shore A                            | ASTM D2240            | 50 ± 5                  |
| Cubic Inches per Pound                       | N/A                   | 22.2                    |
| Color/Appearance                             | Visual                | Blue                    |
| Tensile Strength (psi)                       | ASTM D412             | 620                     |
| Elongation (%)                               | ASTM D412             | 325                     |
| Tear Strength (pli)                          | ASTM D624 Die B       | 87                      |
| Coefficient of Thermal Expansion, (in/in/°F) | ASTM E831             | 16.5 x 10 <sup>-5</sup> |
| Shrinkage (in/in) linear                     | ASTM D2566 @ 1" depth | Nil                     |

| HANDLING PROPERTIES                            | Part A      | Part B |
|--|-------------|--------|
| Mix Ratio by weight                            | 100         | 10     |
| Mix Ratio by volume                            | 100         | 12     |
| Specific Gravity @ 77°F (25°C)                 | 1.23        | 0.99   |
| Color  | Off White   | Blue   |
| Viscosity (cps) @ 77°F (25°C) Brookfield       | 121,400     | 490    |
| Mixed Viscosity (cps) @ 77°F (25°C) Brookfield | 90,000      |        |
| Work Time, 100g mass @ 77°F (25°C)             | 30 minutes  |        |
| Gel Time                                       | 60 minutes  |        |
| Demold Time @ 77°F (25°C)                      | 24 hours    |        |
| Heat Cure @ 150°F (66°C)                       | 2 – 4 hours |        |

## **INHIBITION:**

Certain materials will cause inhibition or neutralization of the curing agent. These materials are sulphur and organometallic salt containing compounds such as organic rubbers and many condensation cured RTV silicone rubbers. Inhibition may easily be determined by brushing a small quantity of TC-5050 over a localized area of the surface to be reproduced. If the TC-5050 is gummy or uncured after the curing time, then you know the mold surface is acting as an inhibitor. Molds made from wood, plaster, metal or plastic should not cause inhibition if they are clean. To insure against possible problems, it is advisable to seal the surface with RF-5215 or other appropriate sealer. Contact BJB's Tech Sales for additional information.

## **STORAGE:**

Store ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 12 months from date of shipment when properly stored at recommended temperatures. Purge opened containers with dry nitrogen before re-sealing.

| PACKAGING           | Part A   | Part B  | Cubic Inches per Kit |
|---------------------|----------|---------|----------------------|
| Quart Kits          | 2 lbs.   | 3.2 oz. | 49                   |
| Gallon Kits         | 8 lbs.   | 13 oz.  | 196                  |
| 5-Gallon Kits       | 40 lbs.  | 4 lbs.  | 977                  |
| 55-Gallon Drum Kits | 450 lbs. | 45 lbs. | 10,989               |

## **SAFETY PRECAUTIONS:**

Use in a well-ventilated area. Avoid contact with skin using protective gloves and protective clothing. Repeated or prolonged contact on the skin may cause an allergic reaction. Eye protection is extremely important. Always use approved safety glasses or goggles when handling this product.

## **IF CONTACT OCCURS:**

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. It is *not* recommended to remove resin from skin with solvents. Solvents only increase contact and dry skin. Seek qualified medical attention if allergic reactions occur.

**Eyes:** Immediately flush with water for at least 15 minutes. Call a physician.

**Ingestion:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Refer to the Material Safety Data Sheet before using this product.**



Silicone Handling Guide



TC-5050 Part A SDS



TC-5050 Part B SDS