

## 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 laundry 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

NON-WARRANTY "Except for a warranty that materials substantially comply with the data presented in Manufacturer's latest bulletin describing the product (the basis for this substantial compliance is to be determined by the standard quality control tests generally performed by Manufacturer), all materials are sold "AS IS" and without any warranty express or implied as to merchantability, fitness for a particular purpose, patent, trademark or copyright infringement, or as to any other matter. In no event shall Manufacturer's liability for damages exceed Manufacturer's sale price of the particular quantity with respect to which damages are claimed."