

# SILICONE CASTING RUBBERS

*"Dedicated to QUALITY, SERVICE, SAFETY, and INNOVATION"*

## TC-5041 A/B 45 SHORE A ROOM TEMPERATURE CURING SILICONE

TC-5041 A/B is a high tear strength, addition/platinum, room temperature 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. With the use of talc powder as an interface the TC-5041 A/B has been used with cast metal temperatures running 650°F (344°C). With the ability to withstand high temperatures the TC-5041 A/B works very well as a mask for metal spraying and welding operations.

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Hardness, Shore A	ASTM D 2240-04e1	45 ± 5
Density (g/cc)	ASTM D 792-00	1.38
Cubic Inches per Pound	N/A	21
Color/Appearance	Visual	Dusty Blue
Tensile Strength (psi)	ASTM D 412-98a (2002)e1	740
Elongation (%)	ASTM D 412-98a (2002)e1	457
Tear Strength (pli)	ASTM D 624-00e1 Die B	175
Coefficient of Thermal Expansion, (in/in/°F)	ASTM E831	13.87 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	14
Specific Gravity @ 77°F (25°C)	1.43	1.04
Color	Off White	Blue
Viscosity (cps) @ 77°F (25°C) Brookfield	71,000	450
Mixed Viscosity (cps) @77°F (25°C) Brookfield	26,000	
Work Time, 100g mass @ 77°F (25°C)	60 minutes	
Gel Time	90 minutes	
Demold Time @ 77°F (25°C)	6 – 8 hours	

**INHIBITION:**

Certain materials will cause inhibition or neutralization of the curing agent. These materials are sulphur containing 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-5041 over a localized area of the surface to be reproduced. If the TC-5041 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.

**STORAGE:**

Store in a cool dry place. Unopened containers will have a shelf life of 6 months from date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing.

<b>PACKAGING</b>	<b>Part A</b>	<b>Part B</b>	<b>Cubic Inches per Kit</b>
Quart Kits	2 lbs.	3.2 oz.	46.2
Gallon Kits	8 lbs.	13 oz.	185.1
5-Gallon Kits	40 lbs.	4 lbs.	924
55-Gallon Drum Kits	450 lbs.	45 lbs.	10,395

**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. Solvent 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.