

TC-5005 A/B

ROOM TEMPERATURE CURING SILICONE



TC-5005 A/B is a room temperature curing silicone elastomer intended primarily for making silicone skins, but is also used as a general purpose rubber. This product is a condensation cured system using a tin catalyst that provides a 40-60 minute work time with 16-24 hour demold time. If a softer product is required, our SC-5002 can be added to this or any other silicones to increase their elongation and reduce their hardness.

- RoHS/REACH SVHC Compliant
- Perfect for skin simulation
- High elongation
- Low viscosity and easily poured
- Translucent in color

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Hardness, Shore A	ASTM D 2240-04e1	5 ± 4
Density (g/cc)	ASTM D 792-00	1.09
Cubic Inches per Pound	N/A	25.7
Color/Appearance	Visual	Colorless/Translucent
Tensile Strength (psi)	ASTM D412-98a(2002)e1	474
Elongation (%)	ASTM D412-98a(2002)e1	550
Tear Strength (pli)	ASTM D624-00e1 Die B	47
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	11
Specific Gravity @ 77°F (25°C)	1.09	0.99
Color	Colorless	Colorless
Viscosity (cps) @ 77°F (25°C) Brookfield	28,000	55
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	15,250	
Work Time, 1 lb. mass @ 77°F (25°C)	40 – 60 minutes	
Demold Time @ 77°F (25°C)	16 – 24 hours	

INHIBITION:

New molds made with tin catalyzed silicones often have a tendency to inhibit the cure of various urethane materials that are cast against the silicone. Post-curing a new mold at 150°F (66°C) for 24 hours will eliminate the cure inhibition problem in most cases. It is also recommended that the mold surface be washed thoroughly with soap and warm water then dried before use.

MIXING:

TC-5005 A/B is processed by adding curing agent "B" at a ratio of 10 parts by weight to 100 parts by weight of "A". Mix for 2 to 3 minutes in a clean container, then transfer material to another clean container and mix for another 2 to 3 minutes. The TC-5005 "C" component can be added as much as 50% to the total weight of TC-5005 A/B. This will increase the elongation and lower the amount of force needed to elongate the product. With the maximum amount of part "C" added a slight tack might be present on the surface of the part. By painting this surface with silicone paints or applying talc powder to the surface, this tack can be eliminated.

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.	57
Gallon Kits	8 lbs.	0.8 lbs.	227
5-Gallon Kits	40 lbs.	4 lbs.	1,131

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.

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

⚠️WARNING: This product can expose you to chemicals including Methanol (by product), which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



Silicone Handling Guide

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."