

## TC-5005 A/B - C

### ROOM TEMPERATURE CURING SILICONE



TC 5005 A/B-C 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 1.5-2 hour work time with 16-24 hour demold time.

- Low viscosity and easily poured
- Translucent in color
- Perfect for skin simulation
- High elongation

| PHYSICAL PROPERTIES (A + B with 50% C) | TEST METHOD           | RESULTS               |
|--|-----------------------|-----------------------|
| Hardness, Shore OO                     | ASTM D 2240-04e1      | 10 ± 5                |
| Density (g/cc)                         | ASTM D 792-00         | 1.05                  |
| Cubic Inches per Pound                 | N/A                   | TBD                   |
| Color/Appearance                       | Visual                | Colorless/Translucent |
| Tensile Strength (psi)                 | ASTM D412-98a(2002)e1 | 136                   |
| Elongation (%)                         | ASTM D412-98a(2002)e1 | 700                   |
| Tear Strength (pli)                    | ASTM D624-00e1 Die B  | 13                    |
| Shrinkage (in/in) linear               | ASTM D2566 @ 1" depth | Nil                   |

| HANDLING PROPERTIES (A + B with 50% C)         | Part A          | Part B    | Part C    |
|--|-----------------|-----------|-----------|
| Mix Ratio by weight                            | 100             | 10        | N/A       |
| Mix Ratio by volume                            | 100             | 11        | N/A       |
| Specific Gravity @ 77°F (25°C)                 | 1.09            | 0.99      | 0.97      |
| Color  | Colorless       | Colorless | Colorless |
| Viscosity (cps) @ 77°F (25°C) Brookfield       | 28,000          | 55        | 0.97      |
| Mixed Viscosity (cps) @ 77°F (25°C) Brookfield | 2,750           |           |           |
| Work Time, 1 lb. mass @ 77°F (25°C)            | 1.5 – 2 hours   |           |           |
| Demold Time @ 77°F (25°C)                      | 16 – 24 minutes |           |           |

**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 6 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   | Part C   | Cubic Inches per Kit |
|---------------------|----------|----------|----------|----------------------|
| Gallon Kits         | 8 lbs.   | 0.8 lbs. | 4.4 lbs. | TBD                  |
| 5-Gallon Kits       | 40 lbs.  | 4 lbs.   | 22 lbs.  | TBD                  |
| 55-Gallon Drum Kits | 450 lbs. | 45 lbs.  | 248 lbs. | TBD                  |

**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.**



Silicone Handling Guide



TC-5005 Part A SDS



TC-5005 Part B SDS



TC-5005 Part C SDS

