



TC-640 A/B

ALIPHATIC 35 SHORE A

CASTABLE POLYURETHANE ELASTOMER

DESCRIPTION:

TC-640 is a multi-purpose elastomer that can perform many functions. Typical product uses and features are:

- ✓ Mold fabrication
- ✓ Skin membranes for animated characters
- ✓ Bumpers and many types of urethane rubber parts
- ✓ Excellent as an adhesive for resilient and flexible bonds
- ✓ Highly water-resistant. Insensitive to moisture during cure

PHYSICAL PROPERTIES:

Hardness, Shore A ASTM D-2240.....	35 ± 5
Density, (g/cc) ASTM D-792.....	1.00
Tensile Strength, (psi) ASTM D-412.....	350
Elongation, (%) ASTM D-412.....	750
Tear Strength, (pli) ASTM D-624	5
Shrinkage, (in./in.) linear ASTM D-2566.....	0.001

HANDLING PROPERTIES:

Mix Ratio:

Part A	100 parts by weight
Part B	100 parts by weight

Specific Gravity:

Part A	1.02
Part B	1.00

Mixed Viscosity, (cps) @ 77°F (25°C) Brookfield..... 3,200

Color:

Part A	Clear
Part B	Amber

Work Time, 100g mass @ 77°F (25°C)45 minutes

Gel Time 1 hour

Demold Time @ 77°F (25°C)..... 16 - 24 hours

Cure Schedule.....5-7 days

NOTE:

After demolding, it is recommended that this product be allowed to cure at room temperature conditions, 70° - 85°F (21° - 29°C), for a period of 5-7 days to develop full properties. Do not cast or demold this product if temperatures fall substantially below this range. Demold times may be shortened if mold temperatures and curing conditions are kept moderately high, 90° - 110°F (32° - 43°C). Allow TC-640 A/B to cure for 24 hours at room temperature prior to post curing at elevated temperatures. Post curing at 150°F (66°C) for 2-4 hours will expedite the time required to reach full properties.

Prolonged direct exposure to sunlight can affect the surface of this product. Cover molds or other products when storing outdoors. **The cure will be inhibited if cast against a tin catalyzed silicone RTV.**

STORAGE:

Store in a cool dry place. Unopened containers of TC-640 A/B will have a shelf life of 6 months from date of shipment when properly stored under normal indoor conditions, 75° ± 15°F (24° ± 8°C). Purge opened containers with dry nitrogen before re-sealing.

PACKAGING:

1 Gallon kits.....	8 lbs. A, 8 lbs. B
5 Gallon kits.....	40 lbs. A, 40 lbs. B
55-Gallon drum kits.....	400 lbs. A, 400 lbs. B

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.