



TC-1607 A/B

HIGH TEMPERATURE EPOXY LAMINATING RESIN

PRODUCT DESCRIPTION:

TC-1607 A/B is an unfilled, medium viscosity laminating resin for high temperature plastic tooling and part fabrication. This system is ideal for wet lay-up tooling applications where excellent dimensional stability and high mechanical properties are required.

PRODUCT HIGHLIGHTS:

- Easy to use for lay-ups requiring vacuum bagging
- Withstands temperatures to 350°F (177°C)
- Designed for fabrication of a variety of molds

PRODUCT APPLICATIONS:

- ◆ Vacuum-Form Molds
- ◆ RTM/RIM type molds
- ◆ Compression molds
- ◆ Auto-Clave molds
- ◆ High temperature jigs and fixtures

PHYSICAL PROPERTIES: (With 8 plies of 7500-glass cloth, vacuum bagged)

Hardness, Shore D @ 77°F (25°C)	95
@ 350°F (177°C).....	87
Specific Gravity, (g/cc) cured ASTM D-792.....	1.16
Color/Appearance.....	Translucent
Tensile Strength, (psi) ASTM D-638	25,500
Flexural Strength @ 77°F (25°C).....	48,600
@ 350°F (177°C).....	15,000
Flexural Modulus @ 77°F (25°C).....	2.25 x 10 ⁶
@ 350°F (177°C).....	1.0 x 10 ⁶
Shrinkage, (16 plies of 7500-fiberglass cloth laid up @ 0° and 45°, in./in.)	0.0013
Compressive Strength, (psi) ASTM D-695.....	26,400
Coefficient of Thermal Expansion, (in./in./°F) ASTM D-3386	0.80x10 ⁻⁵
Glass Transition Temperature (Tg)	330°F (166°C)
Laminate Service Temperature	350°F (177°C)

HANDLING PROPERTIES:

Mix Ratio (by weight):

Part A 100 parts by weight
Part B 20 parts by weight

Specific Gravity (g/cc):

Part A 1.20
Part B 1.00

Mixed Viscosity, (cps) 2,100

Work Time @ 77°F (25°C) 1 lb. mass 35 minutes

Demold Time @ 77°F (25°C) 24 hours

POST CURING:

All physical property results are based upon post-curing this system. The following procedure provides the best results:

- 1) 150°F (66°C) for 1.5 to 2 hours
- 2) 250°F (121°C) for 2 hours
- 3) 300°F (149°C) for 1 hour
- 4) 350°F (177°C) for 1 hour

Allow to cool in the oven. This procedure provides further stabilization and eliminates possible thermal shocks for cavity tools that are temporarily clamped together for curing purposes.

PACKAGING:

Gallon Kits 9 lbs. A, 1.8 lbs. B
5 Gallon Kits 40 lbs. A, 8 lbs. B
Drum Kits 500 lbs. A, 100 lbs. B

STORAGE:

Store at 55° - 90°F (13° - 32°C) in a dry location. Unopened containers will have a shelf life of 12 months from date of shipment when properly stored at room temperature. Keep containers tightly sealed after use.

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.

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."