

TECHNICAL BULLETIN

URACAST-2658 URETHANE POTTING COMPOUND

UC-2658 is a filled, two-part urethane resin system, which combines good handling characteristics with excellent cured properties. Its low viscosity allows for easy flow and air release. The cured elastomer has excellent water resistance and is exceptionally resistant to thermal shock. It is useful for general purpose casting, potting or encapsulating intricate circuits, operational amplifiers, transformers, and other electric/electronic components.

TYPICAL HANDLING PROPERTIES:

Polyol	PARTB
Isocyanate	PART A
Mix ratio by weight (A:B)	44:100
Viscosity at 25°C, cps	

Mixed 4000-6000
Pot life at 25°C (100 gram), minutes 20-30

Recommended cure schedules to obtain optimum properties:

Recommended: 4-6 hrs @ 80°C Alternate: 5-7 days @ 25°C

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color Specific Gravity Hardness, Shore A Water Absorption (24 hr at RT), % Weight Loss @ 120°C (7 days), % Thormal Conductivity, W/mV	Beige 1.3 70 0.15 0.2
Thermal Conductivity, W/mK Service temperature range, °C Glass Transition Temperature (Tg), °C Coefficient of Thermal Expansion ppm/°C	-55 to 110 <20
Dielectric Strength, Volts/mil (0.125 inch) Dielectric Constant at 1 kHz Dissipation Factor at 1 kHz Volume Resistivity, ohm-cm	420 4.2 0.02 2x10 ¹⁴

INSTRUCTIONS FOR USE:

- 1. PART-B contains fillers & should be stirred or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties; accurate proportioning and thorough mixing are essential.
- 2. Mix contents thoroughly each time before removing material.
- 3. To each 100 grams of Part B, add 44 grams of Part A and mix it well preferably using a mechanical mixer.
- 4. Vacuum degas for about five minutes to remove any dissolved or entrapped air.
- 5. Proceed with the casting or potting application and cure as recommended.

FOR INDUSTRIAL USE ONLY:

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

WARNING!

Although the system contains low volatility materials, care should be taken in handling. Adequate ventilation of work place and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to Material Safety Data Sheet for additional health and safety information.

SHELF LIFE:

The shelf life of these materials is six months when stored in unopened containers at an average temperature of 25°C. If containers are opened and the contents only partially used, the container should be flushed with dry nitrogen before being resealed.