



ISO-9001-2015 Certified

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TECHNICAL BULLETIN

URACAST™ UC-2521 URETHANE POTTING COMPOUND

UC-2521 is a filled, two-part urethane resin system, which combines good handling characteristics with excellent cured properties. Its low viscosity allows good flowability 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	PART B
Isocyanate	PART A
Mix ratio by weight (A:B)	25:100
Viscosity at 25°C, cps	
Resin (PART-A)	10,000-14,000
Hardener (PART-B)	100-200
Mixed	2000-4000
Pot life at 25°C (100 gram), minutes	20-30

Recommended cure schedules to obtain optimum properties:

<u>Temp. (°C)</u>	<u>Demold Time</u>	<u>Cure Time</u>
25	8 – 10 hrs	7 days
60	1-2 hr	6 hrs
100	20 minutes	4 hr

TYPICAL CURED PROPERTIES:

(Tested @ 25°C unless otherwise indicated)

Color	Black
Specific Gravity	1.4
Hardness, Shore D	50
Water Absorption (24 hr at RT), %	0.15
Weight Loss @ 120°C (7 days), %	0.2
Thermal Conductivity, W/mK	0.3
Service temperature range, °C	-55 to 130
Glass Transition Temperature (Tg), °C	<10
Coefficient of Thermal Expansion ppm/°C	120
Dielectric Strength, Volts/mil (0.125 inch)	420
Dielectric Constant at 1 kHz	4.2
Dissipation Factor at 1 kHz	0.02
Volume Resistivity, ohm-cm	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 25 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 workplace 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.

DISCLAIMER: All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.