



# URALITE FH3530 A and B Data Sheet

August 2011

## Electronic Materials

### Potting Compound

#### Material Description

URALITE FH3530 A/B is two-component, low viscosity polyurethane that cures at room temperature.

This material is ideal for the encapsulation and protection of electronic assemblies and components. It is used in high performance sonobuoy applications.

#### Features & Benefits

- 100% solid, no solvents, plasticizers, or low volatile components.
- Room temperature curing, no heat required.
- Material does not contain TDI
- Castable and can be demolded after cure.
- Non-conductive, non-corrosive
- High impact strength
- Designed for use with automated dispense systems.
- Will not induce stress cracking in polycarbonate or polyethylene parts.
- Fungus-resistant does not support growth.

#### Mixing

URALITE FH3530 A/B material can be mixed by hand or with automated dispense system. Degassing of the mixed material required to reduce air bubbles.

Contact HB Fuller technical support for additional recommendations.

#### Typical Properties (Uncured)

Property	Part A	Part B	Blend
Color	Colorless	Amber	Colorless
Specific gravity ASTM D792/D1475	1.07	1.10	1.08
Viscosity @ 25° C	5,500	50	1,900
Mix ratio by weight	100	40	
Mix ratio by volume	100	44	
Working pot life time after mixing @ 25° C (200 grams), mins			15
Gel time after mixing @ 25° C (200 grams), mins			22

#### Typical Mechanical Properties (Cured)

Property	Test Method	Value
Hardness, Shore A	ASTM D-2240	80
Glass Transition (T <sub>G</sub> ) °C	ASTM E-1545	<20
Young's Modulus, PSI	ASTM D-638	2,150
Tensile Strength, PSI	ASTM D-638	2,400
Elongation at Break, %	ASTM D-638	1,700
Coefficient of Thermal Expansion m/m°C	ASTM E-831	$a_{2=229} \times 10^{-6}$
Weight loss, %, post 500 hrs at 107°C		1.17
Water absorption, % 168 hrs submersion at 25°C		0.7



## TECHNICAL DATA SHEET

### Typical Electrical Properties

Property	Test Method	Value
Dielectric Strength kV/mm	ASTM D-149	15.6
Dielectric constant @ 106Hz	ASTM D-150	5.27
Dielectric constant @ 103Hz	ASTM D-150	6.16
Volume resistivity, ohm-cm	ASTM D-257	$1.1 \times 10^{15}$
Surface resistivity, ohm	ASTM D-257	$3.8 \times 10^{13}$
Insulation resistance, ohm	ASTM D-257	$1.2 \times 10^{12}$

### Health & Safety Precautions

Please see the Material Safety Data Sheet (MSDS) for proper handling and disposal instructions.

### Note

The values noted in this data sheet are typical properties only and are not intended to be used as material specifications.

For assistance in writing a material specification please contact HB Fuller for future details.

### Curing Profile

Full cure physical properties are normally attained after seven days at room temperature (25° C)

Curing of URALITE FH3530 A/B may be accelerated by heating for 2 hours at 65° C.

### Storage & Shelf Life

URALITE FH3530 A/B should be stored in a cool, dry place. Shelf life is a minimum of one year in unopened containers when stored at 25° C.

If compound is below 16° C, warm to 25° C before opening.

Purge opened containers with dry air, nitrogen, or other inert blanketing gas before resealing.

### Clean-Up

Equipment, brushes, and spillage can be cleaned promptly after use with a mixture of anhydrous isopropyl alcohol and acetone that should be discarded after each use.

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