

# Circalok™ 6402 Urethane Encapsulant

**OBSOLETE**

## Description

Circalok™ 6402 encapsulant is a general purpose, two-component urethane system which cures to a flexible material ideal for use as a coating, laminating adhesive or encapsulating compound. It can also be used as an excellent adhesive for many non-polar substrates, including rubber, metal and vinyl. Circalok 6402 encapsulant is suitable for use in applications such as electrical cable encapsulation, general marine sealing and caulking, water-resistant roll coverings, waterproof fabric coatings and general purpose casting compounds.

## Features and Benefits

**Low Stress** – exhibits low shrinkage and stress on components as it cures.

**Broad Temperature Range** – can be used on parts and devices that experience operating temperatures from -70 to +100°C.

**Environmentally Resistant** – provides excellent hydrolytic stability; cures to an abrasion resistant coating.

## Application

**Mixing** – Thoroughly stir each component within its shipping container prior to mixing together. Transfer amount of Circalok 6402 A resin needed to a clean container. Add Circalok 6402 B hardener at a ratio of 20 parts resin to 10 parts hardener, by weight. Thoroughly mix components until uniform in consistency. Automatic meter/mix/dispense equipment may be used for high volume production.

**Applying** – Apply encapsulant manually or by using automatic meter/mix/dispense equipment.

**Curing** – Allow encapsulant to initially cure for 30 minutes at 100°C, or for 2 hours at 65°C, or for 7 hours at 25°C. Depending on temperature of initial cure, complete cure will be achieved after 1-7 days at 25°C.

## Shelf Life/Storage

Shelf life of each component is six months from date of manufacture when stored in a dry environment at 25°C in original, unopened container.

Circalok 6402 components may crystallize during storage. If crystals appear, gently warm material to 60°C and mix carefully before use.

## Typical Properties\*

|                          | 6402 A Resin          | 6402 B Hardener | Mixed        |
|--------------------------|-----------------------|-----------------|--------------|
| Appearance               | Black or Amber Liquid | Amber Liquid    | Black Liquid |
| Viscosity, cps @ 25°C    | 7500                  | 75              | 4000         |
| Specific Gravity         | 0.92                  | 1.03            | 1.00         |
| Gel Time, min @ 25°C     | –                     | –               | 60           |
| Working Life, min @ 25°C | –                     | –               | 30           |

\*Data is typical and not to be used for specification purposes.

# LORD TECHNICAL DATA

## Typical Cured Properties\*

|                                                  |                      |
|--------------------------------------------------|----------------------|
| Volume Resistivity, ohm-cm @ 25°C<br>ASTM D 257  | 1 x 10 <sup>15</sup> |
| Glass Transition Temperature (Tg), °C            | -70                  |
| Hardness<br>Shore A, ASTM D 2240                 | 60                   |
| Tensile Strength, MPa<br>ASTM D 638              | 5.69                 |
| Elongation at Break, %<br>ASTM D 638             | 300                  |
| Dielectric Strength, V/mil                       | 590                  |
| Dielectric Constant @ 25°C<br>10 kHz, ASTM D 150 | 3.81                 |
| Dissipation Factor @ 25°C<br>10 kHz, ASTM D 150  | 0.018                |

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## Cautionary Information

Before using this or any LORD product, refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling instructions.

*For industrial/commercial use only.* Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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