



Chemline Z-6644

Clear Aliphatic Urethane Compound

Description

Chemline Z-6644 is a flexible casting compound that provides crystal clear castings that are semi-rigid and have excellent resistance to UV and outdoor weathering. Other uses include potting of photovoltaic cells and other electronic potting applications.

Processing

Chemline Z-6644 should be mixed thoroughly by a static mixer, or by hand, with a clean spatula in a clean disposable container such as a polypropylene beaker or plastic lined hot drink cup. After mixing, degas material in a vacuum chamber at 30in/Hg vacuum until initial bubbling subsides.

Storage

Both materials must be protected from moisture. Storage temperatures should be 40-100°F. In storage, containers should be tightly closed since this material is moisture sensitive. The B-component should be mixed prior to use. With proper storage practices, the shelf life of **Chemline Z-6644** is 6 months or more.

Safety

Chemline Z-6644 is for industrial use only. Avoid contact with eyes and skin. Do not inhale or ingest. Be sure to read SDS in its entirety prior to use. Liquid Resin can be cleaned with MEK, Acetone, or

Properties of Components

| Property | Clear Polyol | Aliphatic Iso |
|--------------------------|------------------------|---------------|
| Mixing Ratio (by volume) | 1 pbv | 1 pbv |
| Mixing Ratio (by weight) | 50 pbw | 50 pbw |
| Specific Gravity | 1.07 | 1.07 |
| Density lbs/gal | 8.90 | 8.90 |
| Viscosity @ 77°F | 1000-2000 cps | 100-500 cps |
| Viscosity @ 100 °F | 500-800 cps | 40-200 cps |
| Gel Time | 15 Minutes ± 5 @ 100°F | |

Cured Elastomer Properties

| Property | Value |
|----------------------------|---------------------------------------|
| Hardness, D-2240 | Shore D 60-65 |
| Tensile Strength, D-638 | 4000 psi |
| Ultimate Elongation, D-638 | 200 % |
| Humidity Resistance | 7 days 100% RH @ 100°F |
| Shrinkage on Cure | 0.5% cured at RT 1% cured at 167°F |
| Heat Aging | 7 days @ 185°F, no change |

*Values obtained in laboratory setting for comparison purposes only and should not be considered specifications.

Optical Properties

| Property | Value |
|-------------------------|---------|
| Transmissivity (ASTM-E) | 90.5% |
| Index of Refraction | 1.47 nD |
| UV Cutoff Wave Length | 360 nM |

Revised 08/2020

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