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Ref No: Z8500ABDSV2

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# Data Sheet Z-8500 Polyurethane Compound

Product Name: Z-8500

Revised: 4/18/2007

Supersedes: 1/22/2006

**Description:** Z-8500 is a clear polyurethane compound for use on decals, labels, emblems and other decorated substrates. Also suitable for potting solar cells.

**Hazards:** Part A is manufactured for commercial use only. (See MSDS) Part B contains aliphatic diisocyanate and polymeric isocyanates see MSDS for safe handling instructions.

**Storage:** Both Part A and Part B are sensitive to moisture and containers must be kept closed during storage. Storage temperature can be ambient however the material should be warmed to 90-110°F before using.

### Component Z-8500 Part A

#### Typical Liquid Properties:

|                       |   |
|-----------------------|---|
| Appearance: -         | Clearliquid with a slight yellow tint.              |
| Specific Gravity:     | 1.07 @ 100°F  |
| Weight per gallon:    | 8.9 @ 100°F   |
| Brookfield Viscosity: | 450 +/- 100 Cps. RTV #2 Spindle, @ 20 rpm., @ 38 °C |
| Hydroxyl Value:       | 280-290   |
| Acid Value:           | less than 0.75                                      |
| Water Content         | less than 0.1%                                      |

### Component Z-8500 Part B

#### Typical Liquid Properties:

|                       |  |
|-----------------------|--|
| Appearance:           | Clear liquid                                     |
| Specific Gravity:     | 1.10 @ 100°F.                                    |
| Weight per gallon:    | 9.13 @ 100°F.                                    |
| Brookfield Viscosity: | 150 +/- 50 Cps. RVT #2 spindle, @ 50 rpm, @ 38°C |
| NCO Value:            | 21.4+/- .1                                       |

*All information, recommendations and suggestions contained herein are to the best of our knowledge true and accurate, but are made without guarantee. No warranty of fitness for a particular purpose is made. Nothing herein shall be construed to allow infringement of any patent.*

**Mixing Information:**

|                  |        |       |
|------------------|--------|-------|
| Ratio by Weight: | Part A | 49.35 |
|                  | Part B | 50.65 |
| Ratio by Volume: | Part A | 50    |
|                  | Part B | 50    |

**Curing:**

Gel Time: The geltime of Z-8500 is adjustable from 4 to 20 minutes.  
Standard products: Z-8500-5.05 A is 4-6 minutes, Z-8500-10.05 is 10-12 minutes.

**Cure Time:** 100-200°F - 4-16 hours

**Typical Physical Properties:**

**Hardness:** 85-90 Shore A 45-55 Shore D

**Heat aging:** 7 days @ 85°C, no change.

**Weathering:** Two years south Florida: No yellowing no significant loss of gloss.  
5 years Accelerated Outdoor weathering ASTM G90: No yellowing no loss of gloss.  
Xenon Arc accelerated weathering: No yellowing no significant loss of gloss.

**Humidity Resistance:** 7 days 100% RH @ 100°F no change.

**Shrinkage on cure:** 0.5% cured at Room Temperature.  
1% cured at 75°C

**Thermal Coefficient of Expansion:** Approximately  $8 \times 10^{-5} \text{ }^\circ\text{C}$

**Index of Refraction:** 1.475

**Total integrated transmission:** 90%

**UV cutoff:** 360 nm

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