# Z-COAT 401

## Wafer Temporary Bonding Adhesive for Application up to 270°C

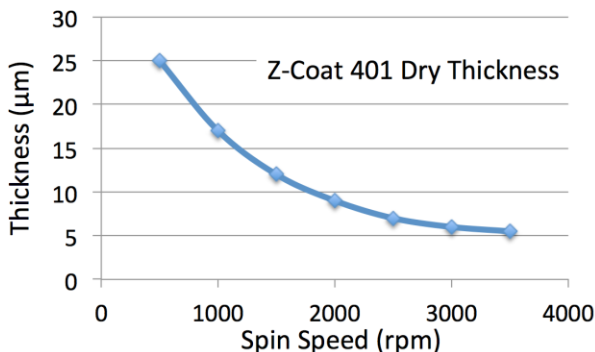
**PRODUCT DESCRIPTION**

Z-Coat 401 is a thermal plastic transparent adhesive designed for wafer to carrier bonding. Z-Coat 401 resists neutral and acid aqueous solution and compatible with most metals, glass, ceramic and related materials. Debond with room temperature air-jet or high temperature thermal slide.

**BASIC MATERIAL PROPERTIES**

| Z-Coat 401 | |
|---|---|
| Appearance | Clear Liquid |
| Odor | Slightly |
| Viscosity | 600 ~ 700 cps |
| Solvent | Yes |
| Thermal Stability | Up to 270℃ |
| Coating | Spin Coating |
| Package | Available in 1 kg and 1 gallon bottle |
| Storage | Room Temperature |

**SPIN COATING**




The recommended Z-Coat 401 thickness for bonding is 17 ~ 20 µm

**HARD BAKE**

| Thickness | Step Hard Bake |
|---|---|
| 5 ~ 12 µm | 150 °C for 10 minutes |
| 10 ~ 20 µm | 80 °C for 5 minutes +<br>180 °C for 5 minutes |

Recommended bake schedule after spin coating

**THERMAL STABILITY:**

Weight Loss < 2 % at 250°C for 1 hour

**TRANSPARENCY:**

Z-Coat 401 is transparent after hard bake to remove solvent.

**WAFER BONDING:**

Temperature: > 150 °C

Pressure: > 3 PSI

Vacuum: lower than $10^{-3}$Pa

Time > 2 min at peak temperature

**WAFER DEBONDING:**

**Thermal Slide:**

Temperature: > 180 °C

**Mechanical:**

Air Jetting

Room Temperature

**CLEANING**

Z-Coat 401 can be easily removed by soaking in Z-clean 820C (aqueous detergent solution), or polar aprotic solvent, followed by di-water rinse. Warm the cleaner to 60~70°C for best cleaning result.

**GENERAL INFORMATION**

For safe handling information on this product, consult Material Safety Data Sheet (MSDS).

**DISCLAIMER**

The data contained herein are furnished for information only and are believed to be reliable. It's user's responsibility to determine suitability for user's purpose and to adopt precautions against hazards when handling the product.

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