



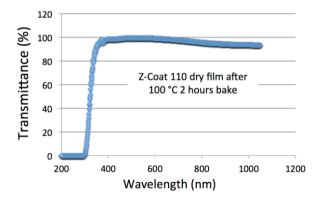
Aqueous Temporary Bonding Adhesive (Stable to 270°C)

Z-COAT 110 is water based temporary bonding adhesive with ~ 50% solid content. This green product is halogen free/metal safe and provides good adhesion throughout lead free reflow cycle. It can be debonded with low-stress air jetting (AirDebond®). Z-Coat 110 residue can be easily removed with DIWater rinse at room temperature.

Basic Material Property:

| Z-Coat 110 | |
|----------------------|-------------------------------------|
| Appearance | Light yellow semi-transparent |
| Viscosity (at 25 °C) | ~ 2000 cps |
| Hard Bake Schedule | 60 °C 5 min + 120 °C 5 min |
| CTE 1 (< 70 °C) | ~ 40 ppm |
| Young's Modulus | ~ 1.0 G Pa |
| Melt Point | 80 °C |
| Tackiness & Hardness | Tacky Free at 25 °C |
| Bonding | 100 ~ 150 °C with vacuum/force |
| Decomposition Temp | > 350 °C |
| PH | Neutral |
| Cleaning | Room temp Di-water rinse |
| Storage | Dry environment at room temperature |

Dry Film Transparency

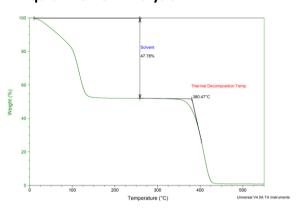


Z-Coat 110 dry film coating maintains its transparency after baking at temperature below 150 °C.

Other Key Properties:

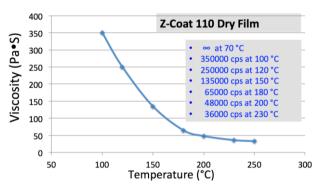
Thermoplastic polymer
Refractive index ~ 1.52
Tacky free surface at < 70 °C
Nonflammable, No Toxic

Liquid 110 TGA Analysis:



Decomposition Temp: > 350°C Weight Loss < 2% 2 hours at 300 °C

Dry Film Melting Viscosity:



Z-Coat 110 dry film liquefies with temperature higher than 180 $^{\circ}\text{C}$

Cleaning:

Z-Coat 110 coating can be easily removed with di-water rinse at room temperature.

Contact:

Micro Materials Inc. 900 Calle Plano, Unit M&N Camarillo, CA 93012

Tel: (805) 383 8810

Email: info@micromaterials-inc.com