



**Adhesive Systems, Inc.**  
An ISO 9001:2008 Certified Company

**MAXIMUM PERFORMANCE SERIES**  
**MP531106I**  
**UV ADHESIVE**

**TECHNICAL DATA SHEET**  
**TDS #: MP531106I**  
**UV Adhesive**  
*Passed ISO 10993 Cytotoxicity*

**DESCRIPTION**

MP531106I is a high performance UV curing adhesive engineered to bond plastics, metal, and glass. It can be used in a variety of product assemblies and it promotes innovative design solutions. It is a fast cure, strong bonding adhesive. Our MP531106I has passed ISO 10993 Cytotoxicity testing and is a leading performer when used for bonding general industrial applications. During in-line inspection this adhesive fluoresces a blue color when using a low intensity black light. MP531106I is often cured with an electroless lamp D, medium pressure metal halide lamp. This UV adhesive also works well with UV light emitted diodes (UV LED) at wavelengths of 365 nm to 410 nm. Design engineers select MP531106I for the optimum in finished product quality, reliability, performance, and cost effectiveness. MP531106I is an essential tool in improving overall product quality, lowering per unit cost, and reducing processing time.

**PHYSICAL PROPERTIES (UNCURED):**

Chemical Class	Acrylate Urethane
Solvent Content	None
Appearance	Liquid
Density, g/ml	1.04
Viscosity, 25 °C, 20 RPM	110cp-170cp
Flash Point °C	77

**Benefits**

- Superior Bond Strength
- Solvent Free
- Low Odor
- Improves Finished Product Quality
- Durable
- Good Impact and Vibration Resistance
- Easily Automated
- No Clean Up

**PHYSICAL PROPERTIES (CURED):**

Durometer Hardness	D72
Water Absorption, 2 hrs. @100 °C	3%
Water Absorption, 24 hrs. @ 25 °C	2.8%
Glass Transition Temperature, °C	66
Tensile Strength PSI	5800
Dielectric Constant	<4
Dielectric Strength, volts/mil	>400
Working Temperature °F	-60 to 300
Flexibility@RT	No
Blue Fluorescing	Yes

**Substrate Applications**

- PET
- PVC
- Polyethylene, Polypropylene requires surface treatment such as corona, etc.
- Metal
- Glass

**CURE SCHEDULE**

Medium Pressure Metal Halide Flood Lamp Station @ 50mW/cm2	5 seconds for 20% UV block PVC
Fusion F 300 S Lamp D Conveyor @	Belt Speed @ FPM
Fixed time between 2 Glass Slides @ low intensity black light	0.5 second
Cure Depth @ 50 mW/cm2 for 2 minutes	1.1 inch
UV LED 365 nm to 410 nm	Time depends on the intensity and wavelength

**Storage and Shelf Life**

This UV Cure material should be stored in a dark place, above 0°C and below 30 °C. The shelf life is one year from the date of manufacture.



**Engineering Excellence**

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## **Directions for Use**

- 1. This product cures at exposure to daylight. Minimize to expose during storage.**
- 2. Surface of substrates should be clean and free from grease, mold release, or other contaminants.**
- 3. Cure speed is dependant on UV energy, intensity of UV Light, required depth of cure and percentage of light transmission of substrates.**
- 4. For the best performance, Fusion Lamp D or medium pressure metal halide should be used. Also, UV LED at 365 nm to 410 nm can be used.**
- 5. Allow cured parts to cool before testing to any service loads.**
- 6. Air inhibits a surface cure. To minimize this effect an inert gas such as nitrogen can be used or a higher intensity can be used.**