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

MAXIMUM PERFORMANCE SERIES
MP531108M
UV ADHESIVE

TECHNICAL DATA SHEET
TDS #: MP531108M
UV Adhesive
Passed ISO 10993 Cytotoxicity

DESCRIPTION

MP531108M **is a high performance UV curing adhesive engineered to bond a wide range of plastic, metals, and glass. It can be used in a variety of product assemblies and it promotes innovative design solutions. Our MP531108M has passed ISO 10993 Cytotoxicity testing and it is a leading performer when used for medical device applications. This maximum performance adhesive is tack free and creates an extremely strong, durable bond. During in-line inspection this adhesive flouresces a blue color when using a low intensity black light. This UV adhesive is a fast curing low viscosity product. MP531108M 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 MP531108M for the optimum in finished product quality, reliability, performance, and cost effectiveness. MP531108M is an essential tool in improving overall product quality, lowering per unit cost, and reducing processing time.**

PHYSICAL PROPERTIES (CURED):

Durometer Hardness	**D70**
Water Absorption, 2 hrs. @100 °C	**3%**
Water Absorption, 24 hrs. @ 25 °C	**3%**
Glass Transition Temperature, °C	**65**
Tensile Strength PSI	**3650**
Dielectric Constant	**<4**
Dielectric Strength, volts/mil	**>400**
Working Temperature °F	**-60 to 300**
Flexibility@RT	**No**
Blue Flouresing	**Yes**

PHYSICAL PROPERTIES (UNCURED):

Chemical Class	**Acrylate**
Solvent Content	**None**
Appearance	**Liquid**
Density, g/ml	**1.04**
Viscosity, 25 °C, 20 RPM	**300cp-400cp**
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**

Substrate Applications

Polycarbonate (PC) Polyvinylchloride (PVC)
Polyethylene,Polypropylene requires surface treatment such as corona, etc.
Glass
Metal

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 @ 5 FPM	Cure Depth @ 0.8 inch
Fusion F 300 S Lamp D Conveyor @ 10 FPM	Cure Depth @ 0.6 inch
Fusion F 300 S Lamp D Conveyor @ 20 FPM	Cure Depth @ 0.35 inch
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 the dark
Place, above 0°C and below 30 °C. The shelf life is one year from the date of manufacture.

Engineering Excellence
For technical information
and support call **1-800-552-0299** or visit our website at
www.instantca.com

Directions for Use

1. This product cures at exposure to daylight. Minimize to expose during storage and handling.
2. Surface of substrates should be clean and free from grease, mold release, or other contaminants.
3. Cure speed is dependent 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, UVLED 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.