# **Technical Data Sheet**





# MP55320

MP55320 is a high performance two part methacrylate adhesive engineered to bond a wide range of plastics, metals, and composite assemblies. It offers outstanding bond strength, is extremely durable, with excellent impact and weathering properties. MP55320 greatly increases the reliability of finished assemblies with exceptional flexibility, it's ability to with stand extreme temperature fluctuation and thermal cycling, and resistance to a wide range of chemicals and environmental conditions.

Technology / Base	Modified Acrylic
Type of Product	Structural Adhesive
Components	Two component
Curing	Room Temperature Cure
Appearance / Color	Off White or Amber
Consistency	Viscous Liquid

### **Features and Benefits**

- No Surface Preparation Required
- Excellent Adhesion Properties
- Excellent Strength to Metals, E-Coat, Thermoplastics, Thermosets, and Engineering Plastics
- Excellent Impact Resistance
- Suitable for Easy Manual and Pneumatic Dispensing
- Excellent Thermal Performance
- 100% Reactive
- Room Temperature Cure
- 10:1 meter-mix product for ease of application
- Use on as received metal surfaces including aluminum, stainless and plated steels and forms tough, high strength bonds without surface preparation

Technical Data			
Rheology		Condition/Method	
Viscosity - Resin	130,000 cPs @ 25°C	Brookfield RV7 20 rpm	
Viscosity - Activator	50,000 cPs @ 25°C	Brookfield RV7 20 rpm	
Viscosity - Mixed		·	
Thixotropic Index	5	Brookfield RV7 20/2 rpm	
Density			
Mixed Density	0.95 g/cc		
Mix Ratio			
Volume Mix Ratio	10:1		
Weight Mix Ratio	10:1		
Uncured Material Characteristics			
Flash Point	51°F		
Open Time	8 - 14 minutes		
Fixture Time	20 - 30 minutes		
Cure Temperature and Time	Room Temperature, 24 hr		
Cured Mechanical Properties			
Gap Fill Dimension	0.25 inch		
Hardness	45 Shore D	ASTM D2240	
Tensile Strength	2175 to 4350 psi (15 to 30 MPa)	ASTM D638	
Over Lap Shear Strength			
Carbon Steel	2800 to 3500 psi (19 to 24 MPa)	ASTM D1002, 25°C 50% RH	
Aluminum	3700 psi	ASTM D1002, 25°C 50% RH	
Cured Thermal Properties			
Thermal Service Range	-67°F to 250°F		

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# H.B. Fuller | Engineering Adhesives



#### Recommended For

#### **METALS**

- Aluminum
- Steel
- Stainless
- E-Coated Metal

#### THERMOSETS

- Fiberglass
- Phenolic
- Gel Coat
- Epoxy
- RIM Urethane
- Polyurethane
- Liquid Molding Resin

### **THERMOPLASTICS**

- Acrylic
- ABS
- Polycarbonate
- Nvlon/PA
- PPO
- Vinyl
- PVC
- Styrene
- Peek
- PBT Blends
- PET Blends

# **Handling and Clean-Up**

Clean up is best before the adhesive has cured. Cleaners containing NMP (N-methyl pyrolidone) or Citrus terpene provide the best results. On cured adhesive repeat use may be required.

## Storage and Shelf Life

Product should be stored in a cool dry place out of direct sunlight. The shelf life of MP55320 is one year from date of manufacture. Shelf life is based on the products being stored properly at temperatures between 55°F and 75°F. Exposure to temperatures above 75°F will reduce the shelf life. This product should NEVER BE FROZEN.

### **General Instructions**

The product is best used at temperatures between 65°F and 80°F. Temperatures below 65°F will slow the cure speed of the material and viscosities will be higher. Temperatures above 80°F will cause the material to cure faster and viscosities will be lower. For consistent dispensing maintain temperature in the above mentioned range.

For optimum bond strength and to insure maximum performance in the finished assembly mate parts together within the specified work time of the adhesive. Make sure the bond joint has uniform coverage and that a sufficient amount of adhesive is in the bond area. It is important to have the adhesive applied, parts aligned and positioned, within the established work times for the product. To ensure maximum performance in the finished assembly parts should remain undisturbed until the fixture time is reached.

# **Typical Packaging**

The MP 55320 Series is conveniently packaged in 50 ml, 380 ml, 490 ml, pail, and drum kits. Special packaging is available upon request.

## Safety and Disposal

For safe handling information on this product, consult the Safety Data Sheet (SDS)

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