





# **MP54190**

MP54190 is a two part mineral filled epoxy adhesive designed for bonding metals and plastics. It cures at room temperature to a tough, semi-flexible material. It has good wetting to most surfaces and is free flowing to penetrate cavities and give good self leveling and air release. This product gives very good vibration and impact resistance. It gives good resistance to water, salt spray, inorganic acids and bases and most organic solvents. It was especially formulated to a 1:1 volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. MP54190 will reach handle cure at room temperature within 16 – 24 hours. Cure time can be accelerated by the application of heat. Times and temperatures from 2 hours at 65°C to 20 minutes at 100°C are typical for most applications. Time to heat substrate must be taken into account. Cooler temperatures will also extend work time and increase cure times.

Technology / Base	Ероху	
Type of Product	Structural Adhesive	
Components	Two Component	
Curing	Room Temperature (secondary thermal cure)	
Appearance / Color	Translucent	
Consistency	Liquid	

### **Features and Benefits**

- **Excellent Bonding to Metals and Most Plastics**
- Very Good Vibration and Impact Resistance with High Peel and Shear Strengths
- Excellent Chemical Resistance
- Suitable for Cartridge and MMD Dispensing Equipment
- **Excellent Thermal Performance**
- 100% Reactive
- **Room Temperature Cure**
- 1:1 volume mix product for easy meter or static mix of application

Technical Data			
Rheology	Value	Condition/Method	
Viscosity - Part A	80,000 cPs	at 25°C	
Viscosity - Part B	80,000 cPs	at 25°C	
Viscosity - Mixed	80,000 cPs	at 25°C	
Uncured Material Characteristics			
Specific Gravity - Part A	1.34		
Specific Gravity - Part B	1.31		
Specific Gravity - Mix	1.32		
Volume Mix Ratio	1 to 1		
Weight Mix Ratio	103 to 100		
Pot Life	60 min	at 25°C 100 gram	
Gel Time		100 gram	
Handling Time	16 to 24 hours		
Full Cure @ 23°C	48 to 72 hours		
Full Cure @ 66°C	2 hours		
Shelf Life	12 months unopened		
Cured Mechanical Properties			
Hardness	70 Shore D	ASTM D2240	
Tensile Strength	20.7 MPa (3000 psi)	ASTM D638	
Elongation at Break	60.0%	ASTM D638	
Overlap Shear Strength			
Aluminum, Acid Etched at 25°C	12.4 MPa (1800 psi)	ASTM D1002, 25°C 50% RH	
Operating Temperature	-60°C to 150°C (-75°F to 300°F)		
Cured Electrical Properties			
Dielectric Constant	4.5 at 25°C, 100Hz	ASTM D150	
Dielectric Strength	16.1 kV/mm	ASTM D149	
Volume Resistivity	8 E 13 ohm⋅cm	ASTM D257	



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#### **General Instructions**

Surfaces to be bonded must be clean, dry and free of other contaminants. Bring both components to room temperature prior to mixing. Measure out specified amounts of parts A and B and stir (without introducing bubbles) until homogenous or use a static mixing nozzle. Apply the uniform mixture to both surfaces. Allow to cure while being held in place with light clamping.

# **Specifications and Approvals**

### Handling and Clean-Up

See SDS for handling and clean-up information.

#### Storage

Product should be stored in a cool dry place out of direct sunlight. The shelf life is from date of manufacture. Shelf life is based on the products being stored properly at temperatures between 12°C and 25°C. Exposure to temperatures above 25°C will reduce the shelf life. This product should not be frozen.

**Use Note** 

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# **Safety and Disposal**

See SDS for

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