



MP54190GR

MP54190GR is a medium viscosity polyamide/epoxy adhesive recommended for bonding applications where high shock impact resistance and peel resistance are desired. This 1:1 ratio, two part adhesive is easily mixed and cured at room temperature and develops tough, strong bonds to a wide variety of materials, including metals, glass, ceramics and plastics. Fully cured MP54190GR bonds offer superior thermal shock resistance, mechanical, electrical, electrical and impact dimensional stability and resistance to water, weather, oxygen and ozone, most petroleum products, mild acids and alkalis and many other chemicals. This system is recommended for low-stress, high impact/high peel strength bonding applications of dissimilar materials. Some proven applications are repairing strain gages, sealing seams on fiberglass components, repair of printed circuits, bonding stainless inserts inside potentiometer, bonding glass to aluminum, bonding of Pyrex, wire to Lucite, rubber hose to steel tubing, metal to fiberglass, repairing plastic laminates and sealing polyurethane foam. It was especially formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. MP 54190 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	Epoxy
Type of Product	Structural Adhesive
Components	Two Component
Curing	Room Temperature (secondary thermal cure)
Appearance / Color	Light Grey
Consistency	Liquid

Features and Benefits

- Excellent Bonding to Metals, Ceramic, Glass 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	60,000 cPs	at 25°C
Viscosity - Part B	60,000 cPs	at 25°C
Viscosity - Mixed	60,000 cPs	at 25°C
Uncured Material Characteristics		
Specific Gravity - Part A		
Specific Gravity - Part B		
Specific Gravity - Mix	1.23	
Volume Mix Ratio	1 to 1	
Weight Mix Ratio		
Pot Life	20 to 40 min	at 25°C
Gel Time		100 gram
Handling Time		100 gram
Full Cure @ 23°C	48 to 72 hours	
Full Cure @ 66°C	2 hours	
Shelf Life	12 months unopened	
Cured Mechanical Properties		
Hardness	78 Shore D	ASTM D2240
Tensile Strength		
Elongation at Break		
Overlap Shear Strength		
Aluminum, Acid Etched at 25°C		ASTM D1002, 25°C 50% RH
Operating Temperature	-60°C to 130°C (-75°F to 265°F)	
Cured Electrical Properties		
Dielectric Constant		
Dielectric Strength	18.1 kV/mm	ASTM D149
Volume Resistivity		



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

Safety and Disposal

See SDS for

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