

## Description

This is a semi flexible easy-to-use solvent free epoxy adhesive. Can be used to bond or repair almost any material; such as wood, metal, glass, ceramic, plastic and rubber. This is a fast setting resin which hardens in 5 minutes with high bond strength, chemical resistance and is clear in appearance.

## Applications

This is suitable for bonding a wide range of variety of surfaces including steel, aluminium, and galvanised iron. This reacts within a few minutes to give a tough resilient bond on a wide variety of surfaces.

## Specifications

Physical Form	: Viscous liquid
Chemical Type	: Epoxy / Mercaptan and polyamide
Appearance	: Clear
Clear	
Mixed Viscosity 25°C	: 15,000 to 20,000 Pa.S
Specific Gravity	: 1.1
Mix Ratio	: 1:1vol/vol zzor wt/wt

## Mechanical Properties

Shore Hardness D	: 78-80 (ASTM D 2240)
Shear Strength (N/mm <sup>2</sup> )	: 14-18 (DIN 53283)
Peel Strength (N/mm <sup>2</sup> )	: 3-5 (ISO 4578)
Thermal Conductivity (W/mK)	: 0.1
Coefficient of thermal expansion (1/k)	: 60-120 × 10 E <sup>-6</sup>
Dielectric Strength (kv/mm)	: 50-90
Volume Resistivity (OHM/cm)	: 3-5 × 10 E <sup>12</sup>
Service Temperature	: -40°C to +121°C (-40°F to 250°F)

## Chemical Characteristics

Media in PSI	: Lap Shear (ASTM D 1002) Strength
Gasoline	: 2550
Acetic acid (10%)	: 2180
Xylene	: 2165
Lubricating oil-HD30	: 2400
Paraffin	: 2275
Water @ 23°C	: 2355
Water @ 90°C	: 2325

## Cured Performance

### Lap Shear Strength

Substrate	: Shear Strength/Failure Mode
CRS/CRS	: 2,350 psi – Cohesive Failure
Aluminium/Aluminium	: 1,950 psi – Cohesive Failure
Copper/Copper	: 1,850 psi – Cohesive Failure
FRP/FRP	: 900 psi – Cohesive Failure
ABS/ABS	: 850 psi – Cohesive Failure

## Chemical Resistance

Media	: Lap Shear (ASTM D 1002) Strength in PSI
Gasoline	: 2550
Acetic acid (10%)	: 2180
Xylene	: 2165
Lubricating oil-HD30	: 2400
Paraffin	: 2275
Water @ 23°C	: 2355
Water @ 90°C	: 2325
Plastics	: Shear strength psi
ABS	: 210
GRP	: 540
HIPS	: 210
Nylon	: 180
Perspex	: 330
uPVC	: 170
Polycarbonate	: 240
Metals	: Shear strength psi
Steel	: 550
Steel, abraded	: 900
Stainless steel	: 1050
Aluminium	: 650
Aluminium, abraded	: 960
Galvanised iron	: 800
Others	
Plywood	: 680
Teak	: 820

## Part Number Table

Description	Part Number
Epoxy Resin, 5Min Cure, 25ml	MP-ER12-25

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