

# 50ml Epoxy Adhesive Cartridge



RoHS  
Compliant

## Description

This product is a general-purpose two-part epoxy adhesive with excellent adhesion. It has been designed for bonding most plastics, Metals, Wood and GRP.

It has a long pot-life, is impact resistant and good chemical resistance

Properties	Result	Unit
Hardness	65 - 75	Shore D
Operating Temperature	-55°C to +120	°C (Application and geometry dependant)
Compressive Strength	64	MN/m <sup>2</sup>
Surface Resistivity	1.6 x 912	Ω.cm
Dielectric Strength	17	kV/mm
Tensile Strength	44	MPa
Thermal Conductivity	0.3	W/mK
Elongation at Break	2	%
Solids Content	100	%
VOC	None Present	
Glass Transition	~50	°C

Physical Data (approx. – values)	Resin	Hardener	Mixed
Colour	Clear	Amber	Amber
Specific Gravity	1.17	0.97	1.1
Viscosity (mPas) @ 25°C	10000	20000	14000
Mix ratio by weight	1.05:1		
Mix ratio by volume	1.00:1		

## Lap Shear Adhesion

Pre-treatment Abrasion with 300 grit emery and solvent wipe

Aluminium to Aluminium	7.6 MPa	ABS to ABS <sup>(1)</sup>	5.5 MPa
Copper to Copper	6.1 MPa	Nylon 6 to Nylon 6	2.5 MPa
Stainless Steel	9.0 MPa	Acrylic to Acrylic	2.3 MPa

<sup>(1)</sup> Substrate failure

## Cure Schedule (50ml)

Temperature	Working Life (minutes)	Gel Time (minutes)	Light Handling (hours)	Full Cure (hours)
10°C	70	-	48	96
RT*	60	90	16	32
30°C	30	-	8	16
60°C	-	-	2	4
80°C	-	-	1	2



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\*RT is defined as 20-25°C

The above are typical values and will vary depending on the cured mass and application. Hotter temperatures may be used for faster cure but will result in higher post cure shrinkage and higher cure exotherm. Experimentation and testing is suggested to avoid side effects. For maximum properties a post cure may be required

## Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened.  
Use a suitable non-flammable cleaning agent.

## Storage and Shelf Life

12 months at 25°C.

Cartridges should be stored horizontally

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50°C) aggravate this phenomenon. Heating the individual component to 50 to 60°C while stirring can usually restore products to original state. Storage at 25 ±10°C is optimum for most products Some epoxy systems are prone to settling due to high filler content and should be inverted every two to three weeks to reduce the accumulation of the fillers on the bottom of the containers.

Inventory should be rotated on a FIFO (first in, first out) basis.

It is essential for best results that the cartridge is 'balanced' before use to ensure correct mixing.

Loading the cartridge into the gun before attaching the mixer element and pumping the gun to push a small amount of the contents forward will achieve this. Wipe the excess from the cartridge tip and add the static mixer.

## Part Number Table

Description	Part Number
50ml Epoxy Adhesive Cartridge	MC001840

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