

1 Minute® Epoxy

ORDERING INFORMATION

Stock No.
14277

Package Size
50ml Cartridge

Description	A super-fast general purpose thixotropic epoxy adhesive for applications requiring fast fixing. This quick curing formula is excellent for bonding metals, fiberglass, and ceramics.
Features	• Non-sagging on vertical and overhead surfaces • 100% reactive, no solvents • Part fixturing in less than 1 minute
Recommended applications	• Ideal for repairing or assembling furniture, jewellery, china, appliances and models • Fast cure metal-to-metal bonding and repairs • Suitable for bonding metals, glass, fibreglass, fabrics and ceramics

PRODUCT DATA

Physical Properties (Uncured)	Colour	Translucent		
	Mixed Viscosity, cps	70,000 cps		
	Mixed Ratio by Volume	1:1		
	Mixed ratio by weight	1:1		
	Mixed Density	1.13 gm/cc		
	Working time 28gm @23°C	45 seconds		
	Fixture time @23°C	1 minute		
	Functional cure @ 23°C	30 – 45 minutes		
Full cure	2 hours			
Physical Properties (Cured)	7 days cured at 24°C			
	Adhesive tensile shear, (steel) ASTM D1002	11 MPa		
	T Peel	4 – 5 N/10mm		
	Service temperature, dry	-40 - 93°C		
	Cured hardness, ASTM D2240	82D		
	Dielectric strength, ASTM D2566	19.6 KV/mm		
	Tensile elongation	1%		
	% Solid by volume	100		
Specific volume	884 cm ³ /kg			
Chemical Resistance	7 days room temperature cure (30 days immersion)			
	Acetic (Dilute) 10%	Poor	Acetone	Poor
	Ammonia	Poor	Corn Oil	Excellent
	Cutting Oil	Excellent	Ethanol	Poor
	Petrol (unleaded)	Poor	Glycols / Antifreeze	Fair
	Hydrochloric 10%	Poor	Isopropanol	Poor
	Kerosene	Excellent	MEK	Poor
	Mineral Spirits	Excellent	Motor Oil	Excellent
Sulphuric 10%	Poor			

Please consult ITW Devcon for other chemicals

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APPLICATION INFORMATION

General Surface Preparation	1 Minute Epoxy works best on clean surfaces. Surfaces should be free of heavy deposits of grease, oil, dirt or other contaminants, or cleaned with industrial cleaning equipment such as vapour phase degreasers or hot aqueous baths. Abrading or roughing the surfaces of metals will increase the microscopic bond area significantly and optimize the bond strength.
Mixing	This product is available in cartridge form only. The cartridge should be used with a Manual Applicator Gun and a Static Mixer Nozzle. The Static Mixer Nozzle enables the material to be thoroughly mixed when dispensed, and thus can be applied directly to the surfaces to be bonded. Please note: Once the product goes beyond its working time the nozzle has to be thrown away and a new nozzle used for further dispensing.
Application	Apply mixed epoxy directly to one surface in an even film or as a bead. Assemble with the mating part within the recommended working time. Obtain firm contact between the parts to ensure good contact of the epoxy between the mating parts, clamping may optimize this part of the process. A small volume of epoxy should flow out the edges to show there is adequate gap filling. For very large gaps, apply epoxy to both surfaces and spread to cover the entire area, or make a bead pattern, which will allow flow throughout the joint. Let bonded assemblies stand for the recommended functional cure time before handling. They are capable of withstanding processing forces at this point, but should not be dropped, shocked or heavily loaded.
Storage Shelf Life	Devcon Epoxy Adhesives should be stored in a cool, dry place when not used for a long period of time. A shelf life of 1 year from date of manufacture can be expected when stored at room temperature (22°C) in their original containers.
Precaution	For complete safety and handling information, please refer to Material Safety Data Sheets prior to using this product.
Warranty	Devcon will replace any material found to be defective. Because the storage, handling and application of this material are beyond our control, we can accept no liability for the results obtained.
Disclaimer	All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data. For product information visit www.devconeurope.com alternatively for technical assistance please call +353 61 771501 (Ireland) or +49 431 718830 (Germany)