

5 Minute® I-FR

ORDERING INFORMATION

	<u>Stock No.</u> 14272	<u>Package Size</u> 50ml
Description	Flame retardant, Non brominated, antimony free, 5 minute 2 component epoxy paste. Ideal for those applications requiring a self extinguishing structural system.	
Features	• UL94V-0 approval • Non-brominated/antimony free • Meets BSS 7239 Toxicity of combustions Gas-Flamming mode • Meets FAR 25.853 (a) 60 sec. Vertical Burn Test • Meets FAR 25.853 (d) smoke density • RoHS compliant	
Intended Use	• Potting inserts for aerospace industry • Where self extinguishing structural epoxy system(s) are required.	

PRODUCT DATA

Typical Physical Properties Uncured	Colour	White		
	Viscosity cps @23 ⁰ C	Resin: 70,000 Hardener: 42,000 55,000		
	Mixed Viscosity cps @23 ⁰ C	1:1		
	Mixed Ratio by Volume	100:95.4		
	Mixed ratio by Weight	1.25		
	Mixed Density g/cc	4 - 8 minutes		
	Working Time @ 23 ⁰ C	10 - 15 minutes		
	Fixture Time @ 23 ⁰ C	1 Hour		
	Functional Cure@ 23 ⁰ C	12 Hours		
	Full Cure @ 23 ⁰ C			
Typical Physical Properties Cured	7 days at 23⁰C			
	Shore Hardness	84 Shore D		
	Dielectric Strength	19.6 KV/mm		
	Tensile Lap Shear Strength (SS)	11.9 MPa		
	Tensile Lap Shear Strength (AL)	9.8 MPa		
	Tensile Lap Shear Strength (GBS)	10.8 MPa		
	Cured Density g/cc	1.33		
	Service Temperature	-40 ⁰ C – 93. ⁰ C		
	Solids by volume	100%		
Chemical Resistance	7 days room temperature cure (30 days immersion)			
	Acetic (dilute) 10%	Poor	Acetone	Poor
	Ammonia	Fair	Corn oil	Excellent
	Cutting Oil	Excellent	Ethanol	Poor
	Petrol Unleaded	Excellent	Glycols/ Antifreeze	Fair
	Isopropanol	Fair	Kerosene	Excellent
	MEK	Poor	Mineral Spirits	Excellent
	Motor Oil	Excellent	Sodium Hydroxide 10%	Fair
	Sulphuric acid 10%	Poor		

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APPLICATION INFORMATION

Surface Preparation	Clean surface by solvent wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapour phase degreasers or hot aqueous baths. If working with metal, abrade or roughen the surface to significantly increase the microscopic bond area and increase the bond strength.
Application Instructions	Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths 1. Apply mixed epoxy directly to one surface in a even film or as a bead 2. Assemble with mating part within recommended working time 3. Apply firm pressure between the mating parts to minimise any gap and ensure good contact (a small fillet of epoxy should flow out of the edges to display adequate gap fill) For very large gaps 1. Apply epoxy to both surfaces 2. Spread to cover entire area OR make a bead pattern to allow flow through out the joint Bond line guidelines All metal bonds were MEK wiped, abraded (80 grit sand paper) and MEK wiped again. Bond line thickness was 0.25mm
Storage Shelf Life	Store at room temperature (15°C – 30°C) Shelf life is two years from data of manufacture
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 is 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 +44 (0) 870 458 7388 (UK) or +49 431 718830 (Germany)