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**ITW Devcon®**  
A DIVISION OF ITW LIMITED

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## 5-MINUTE EPOXY

### PRODUCT DATA SHEET

A rapid-curing, general purpose adhesive / encapsulant. It forms a hard, rigid bond or coating in minutes.

#### FEATURES

- 7 Minute fixture time
- 100% reactive, no solvents
- Good dielectric strength
- Good solvent resistance
- Bonds metals, fabrics, ceramics, glass, wood and concrete (in combinations)

#### RECOMMENDED APPLICATIONS:

- Cures fast for quick metal-to-metal bonding and repairs
- Pots and encapsulates electronic components and assemblies
- Seals against dust, dirt and contamination
- Fast-curing, thin set, bonding above 4°C

#### PRODUCT DATA

##### Physical Properties - (uncured)

Colour.....	Clear
Mix Ratio by volume.....	1:1
Mixed Viscosity.....	8,000 - 10,000 cps
Working time 28 Grams 24°C.....	4 minutes
Functional cure @ 25°C.....	45 minutes
Coverage (cm <sup>2</sup> @ 0.005mm thickness).....	33.50
Specific Volume.....	833cm <sup>3</sup> /kg
% Solids by volume.....	100.00

##### Performance Characteristics - (7 days cured @ 24°C)

Adhesive tensile shear ASTM D1002.....	9.7N/mm <sup>2</sup>
Operating temperature, dry.....	-40°C - 93°C
Cured density ASTM D792.....	1.10gm/cm <sup>3</sup>
Cured hardness ASTM D2240.....	85D
Dielectric strength ASTM D149 (Volts mil).....	490 volts/mil

##### Chemical Resistance 7 days room temperature cure (30 days immersion @ 24°C)

Kerosene	Very Good	Methanol	Fair
Hydrochloric Acid	Very Good	Toluene	Very Good
Chlorinated solvent	Fair	Ammonia	Very Good
10% Sulphuric Acid	Very Good	10% Sodium Hydroxide	Very Good

PLEASE CONSULT FACTORY FOR OTHER CHEMICALS

Epoxies are very good in water, saturated salt solution, leaded gasoline, mineral spirits, ASTM#3 oil and propylene glycol. Epoxies are generally not recommended for long-term exposure to concentrated acids and organic solvents.



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**APPLICATION INFORMATION****Surface preparation:**

5-Minute Epoxy works best on clean surfaces. Surfaces should be solvent-wiped, 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 optimise the bond strength.

**MIXING:**

Proper homogenous mixing of the two epoxy components of resin and hardener are essential for the curing and development of stated strengths. Always mix the two components with clean tools, preferably of a disposable design.

For small amounts, use Devcon's 28g Dev Tube™ package or the 50ml Dev-Pak with Mark 5 Applicator. If used with a static mix nozzle, the epoxy can be dispensed, metered, mixed and directly applied to the surface to be bonded.

**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 minimise any gap and ensure good contact of the epoxy with the mating part. A small amount 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, shock loaded or heavily loaded.

**CURE:**

Cure time for 5-minute epoxy is ½ - 1 hour for a functional cure. Full bond strength is reached in 16 hours.

**STORAGE AND 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 2 years 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 the appropriate materials Safety Data Sheets prior to using this product.

For technical assistance please call 01933 675299

**ORDERING INFORMATION**

Stock No	Unit size	Stock No	Unit size
14251	28g Dev Tube	14280	Mark 5 applicator gun
14210	70g (2 tubes)	14285	Mark 5 mix nozzle
14201	500g	20020	400ml manual applicator
14270	(50ml) Mark 5 (Dev Pak)	20010	400ml pneumatic applicator
14291	6.4 mm dia mix nozzle	29991	50ml mix nozzle
14271	200ml cartridge	14282	200ml manual applicator
14272	400ml cartridge	14281	200ml pneumatic applicator
29999	400ml mixer nozzle	20019	200ml mixer nozzle

**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