



Brunel Close, Park Farm  
Wellingborough  
Northants  
NN8 6QX  
01933 675299  
01933 670800  
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## 2 TON EPOXY

### PRODUCT DATA SHEET

A high strength, non-shrinking, adhesive/potting compound specially formulated for high clarity, good impact strength, and water resistance. The adhesive bond is resistant to weathering, solvents, and wide variations in temperature.

#### FEATURES

- Formulated for clarity
- 100% reactive, no solvents
- Good water and chemical resistance
- Fills gaps and voids
- Room temperature curing
- Non corrosive

#### RECOMMENDED APPLICATIONS:

- Bonding or potting electronic components and assemblies
- Creating moisture-resistant seals
- Fast-curing, thin set, bonding above 4°C
- Suitable for bonding ceramics, ferrous and non-ferrous, ferrites, wood, glass and concrete

#### PRODUCT DATA

##### Physical Properties - (uncured)

Colour.....	Clear
Mix ratio by volume.....	1:1
Mixed viscosity.....	5,000 cps
Working time 28 grams @ 24°C.....	10 mins
Functional cure @ 24°C.....	2 hours
Coverage 0.25mm thickness.....	15.18 cm <sup>2</sup> /Kg
Specific Volume.....	907cm <sup>3</sup> /kg
% Solids by Volume.....	100

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

Adhesive tensile shear, ASTM D1002.....	15.5N/mm <sup>2</sup>
Operating temperature, dry.....	-40°C to 93°C
Cured Density ASTM D792.....	1.10 gm/cm <sup>3</sup>
Cured hardness, ASTM D2240.....	83D
Dielectric strength ASTM D149 (volts/mil).....	600
Compression strength ASTM D695.....	75.86 N/mm <sup>2</sup>
Coefficient of thermal conductivity ASTM D696.....	83

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

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

Please consult ITW Devcon for other chemicals.



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

### **APPLICATION INFORMATION**

#### **General Surface Preparation:**

2 Ton Epoxy works best on clean surfaces. If surface is oily or greasy, use Devcon Fast Cleaner 2000 Spray/Cleaner Blend 300 to degrease the surface. Surfaces should be free of heavy deposits of grease, oil, dirt or other contaminants or cleaned with industrial cleaning equipment such as vapour 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:**

This product is available in cartridge and 28g Devtube form only.

The cartridge should be used with the appropriate manual Applicator Gun and Static Mixer Nozzle. The Static Mixer Nozzle enables the epoxy to be dispensed, metered and directly applied to the surfaces to be bonded.

Please note: Once the product cures in the nozzle it has to be thrown away and a new nozzle used. For small amounts use Devcon's 28g Devtube, which comes with it's own plunger to extrude the two components at an equal rate.

#### **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 fillet 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:**

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 3 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 Material Safety Data Sheets prior to using this product.

### **ORDERING INFORMATION:**

<u>Stock No</u>	<u>Unit size</u>	<u>Stock No</u>	<u>Unit size</u>
14311	28g Devtube	20015	50ml Manual Applicator Gun
14260	50ml Cartridge	14281	200ml Manual Applicator Gun
20222	200ml Cartridge	20020	400ml Manual Applicator Gun
20242	400ml Cartridge	29991	50ml Static Mixer Nozzle
19550	Fast Cleaner 2000 Spray	29999	200/400ml Static Mixer Nozzle
19510	Cleaner Blend 300 250ml		



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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 technical assistance please call 01933 675299**