



5-MINUTE EPOXY

PRODUCT BULLETIN

Product Description

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

Features and benefits

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

Recommended Applications

- Cures fast for quick metal to metal bonding and repairs
- Pots and encapsulates electronic components and assemblies
- Seals against dust, dirt and combination
- Fast curing, thin set, bonding above 5°C

Typical Physical Properties: (uncured)

Colour	Clear
Mixed ratio by volume	1:1
Mixed viscosity	8000-10000 cps
Working time 28 gm @ 24°C	4 minutes
Functional cure @ 24°C	45 minutes
Coverage based on 25ml	980cm ² @ 0.25mm
% Solids by volume	100

Performance Characteristics 7 days cured @ 24°C

Adhesive tensile shear ASTM D1002	9.6 MPa
Operating temperature – dry	-40°C to +93°C
Cured density ASTM D792	1.10 gm/cm ³
Cured hardness ASTM D2240	85D
Dielectric strength ASTM D149	490 volts/mil

Chemical Resistance: 7 days room temperature cure (30 days immersion)

Kerosene	VG	Methanol	U
Hydrochloric Acid	VG	Toluene	VG
10% Sulphuric Acid	VG	Ammonia	VG
		10% Sodium Hydroxide	VG

KEY: VG = Very Good F = Fair U = Unsatisfactory

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.

PLEASE CONSULT TECHNICAL SERVICE FOR OTHER CHEMICALS

The information enclosed in this Technical Bulletin is as up to date and correct as possible as at the time of issue. The data provided in this Technical Bulletin should be used as a guide only, as the performance of the product will vary depending on differing operating conditions and application methods.

The sale of any product described in this Technical Bulletin will be in accordance with ITW Polymers & Fluids Conditions of Sale, a copy of which is available on request. To the extent permitted by law, ITW Polymers & Fluids excludes all other warranties in relation to this product.

Surface Preparation

5-Minute epoxy gel works best on clean surfaces. Surfaces should be solvent wiped free of heavy deposits of greases, oil, dirt and other contaminants, or cleaned with industrial cleaning equipment such as vapour phase degreasers or hot aqueous baths. Abrading or roughening 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 (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 25ml Dev Tube package or the 50ml Dev Pak with Mark 5 applicator. If used with the static mix nozzle, the epoxy may be dispensed, metered, mixed and directly applied to the surfaces 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 fillet or the 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 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 Gel is 45 minutes to 1 hour for a functional cure. Full bond strength is reached in 16 hours @ 24°C.

Storage

Devcon Epoxy Adhesives should be stored in a cool, dry place when not used for a long period of time.

PRECAUTION

For complete safety and handling information, please refer to the appropriate Material Safety Data Sheet 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 no liability for the results obtained.

ORDERING INFORMATION

Stock No.	Unit Size
S-205	28.4 gm Dev tube
S-206	71 gm
S-208	28.4 gm
S-209	255 gm

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