



5 Minute™ Epoxy

Description:	A rapid-curing, general purpose adhesive/encapsulant.
Intended Use:	Industrial Use: Bonds metals, fabrics, ceramics, glass, wood, and concrete (in combinations)
Features:	100% reactive, no solvents, Good Solvent Resistance, Bonds metals, fabrics, wood, and concrete
Limitations:	Suitability of product is determined by the end user for their application and process.

Typical Physical Properties: Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 Days @ 75°F (24°C)

	Typical Values
Adhesive Lap Shear (GBS)	1,900 psi (13.1 MPa)
Dielectric Strength	490 volts/mil (19.3 kV/mm)
Hardness	85 Shore D
Impact Resistance	5.5 ft-lb/in ² (11.56 kJ/m ²)
Service Temperature	Dry -40°F - 200°F (-40°C - 93°C)
Solids by Volume	100%
Specific Volume	25.1 in ³ /lb. (0.99 cm ³ /g)
Tensile Elongation	1%
T-Peel	2-3 pli (0.35-0.53 N/mm)

Standard Tests

Tensile Lap Shear	ASTM D1002
Dielectric Strength, volts/mil	ASTM D 149
Cured Hardness Shore D	ASTM D 2240

Uncured Properties @ 72°F (23°C)

Color	Light Amber
Working Time	3-6 minutes
Fixture Time	10-15 minutes
Functional Cure	0.75-1 hours
Full Cure	12 hours
Mix Ratio by Volume	1:1
Mix Ratio by Weight	1:1
Mixed Density	9.17 lb/gal (1.10 g/cm ³)
Mixed Viscosity	9,000-11,000 cP

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 vapor 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.

Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths.

Mixing Instructions: **25 ML Dev-Tube**
1. Squeeze material into a small container the size of an ashtray.
2. Using mixing stick included on Dev-tube handle, vigorously mix components for one (1) minute.
3. Immediately apply to substrate.

50 ML/400ML/490 ML CARTRIDGES

1. Attach cartridge to Mark V™ [50ml] 400ml manual or pneumatic dispensing systems.
2. Open tip.
3. Burp cartridge by squeezing out some material until both sides are uniform (ensures no air bubbles are present during mixing).
4. Attach mix nozzle to end of cartridge.
5. Apply to substrate.

Application Instructions:
1. Apply mixed epoxy directly to one surface in an even film or as a bead.
2. Assemble with mating part within recommended working time.
3. Apply firm pressure between mating parts to minimize any gap and ensure good contact (a small fillet of epoxy should flow out 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 throughout the joint.

Let bonded assemblies stand for recommended functional cure time prior to handling.

CAPABILITIES:

Can withstand processing forces
Do not drop, shock load, or heavily load

Storage: Store in a cool, dry place.

Compliances: None

Chemical Resistance: Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F (24°C)

Acetic 10% (Dilute)	Poor	Hydrochloric 10%	Poor
Acetone	Poor	Isopropanol	Poor
Ammonia	Poor	Kerosene	Excellent
Corn Oil	Excellent	Methyl Ethyl Ketone	Poor
Cutting Oil	Excellent	Mineral Spirits	Excellent
Ethanol	Poor	Motor Oil	Excellent
Gasoline (Unleaded)	Poor	Sodium Hydroxide 10%	Poor
Glycol/Antifreeze	Fair	Sulfuric 10%	Poor

Precautions: **FOR INDUSTRIAL USE ONLY:** Please refer to the appropriate Safety Data Sheet prior to using this product.

Warranty: ITW Performance Polymers 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.

Order Information:

14210	2.5 oz.
14630	9 lb.
DA051	400 ml cartridge
14250	25 ml Dev-Tube™
14270	50 ml cartridge
14200	15 oz.

Contacts:

www.itwpp.com	
ITW Performance Polymers (EMEA)	ITW Performance Polymers (US)
Bay 150, Shannon Industrial Estate	30 Endicott Street
Shannon, County Clare, Ireland V14 DF82	Danvers, MA 01923 USA
TEL: +353 61 771 500	TEL: 855 489 7262
FAX: +353 61 471 285	FAX: 978 774 0516
Email: customerservice.shannon@itwpp.com	Email: info@itwpp.com

Disclaimer: **Product Use:** The information herein is based upon good faith testing that ITW PP believes are reliable, but the accuracy or completeness of such information is not guaranteed. Many factors beyond ITW PP control and uniquely within user's knowledge and control can affect the use and performance of an ITW PP product in a particular application. Given the variety of influencers on performance, the data here is not intended to substitute end user testing. It is the end users sole responsible for evaluating any ITW PP product and determining whether it is fit for a particular purpose and suitable for user's design, production, and final application.

Exclusion of Warranties: As to the herein described materials and test results, there are no warranties which extend beyond the description on the face hereof. ITW PP makes no other warranties, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. Since the use of the herein described involves many variables in methods of application, design, handling and/or use, the user, in accepting and using these materials, assumes all responsibility for the end result. ITW PP shall not otherwise be liable for loss of damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.