

1 Minute™ Epoxy Gel

Description:

Super-fast epoxy which bonds to metals, glass, fiberglass, and ceramics. Sets up in 60 seconds for instant adhesion.

Intended Use:

Repairing furniture, jewelry, china, appliances and models.

Features:

100% reactive, no solvents. Parts fixture in less than 1 minute. Fast-curing adhesive that bonds metals.

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)	1,600 psi (11.0 MPa)
Dielectric Strength	490 volts/mil (19.3 kV/mm)
Gap Fill	0.25 in. (0.635 cm)
Hardness	82 Shore D
Impact Resistance	4.5 ft-lb/in ² (9.45 kJ/m ²)
Service Temperature	-40°F - 200°F (-40°C - 93°C)
Solids by Volume	100%
Specific Volume	25.72 in ³ /lb. (0.93 cm ³ /g)
Tensile Elongation	1%
T-Peel	2-3 pli (0.35 - 0.53 N/mm)

Standard Tests

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

Uncured Properties @ 72°F (23°C)

Color	Opaque-Amber
Working Time	45 seconds
Fixture Time	1 minute
Functional Cure	30-45 minutes
Full Cure	2 hours
Mix Ratio by Volume	1:1
Mix Ratio by Weight	1:1
Mixed Density	9.4 lb/gal (1.13 g/cm ³)
Mixed Viscosity	70,000 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
Acetone	Poor
Ammonia	Poor
Corn Oil	Excellent
Cutting Oil	Excellent
Ethanol	Poor
Gasoline (Unleaded)	Poor
Glycol/Antifreeze	Fair

Hydrochloric 10%	Poor
Isopropanol	Poor
Kerosene	Excellent
Methyl Ethyl Ketone	Poor
Mineral Spirits	Excellent
Motor Oil	Excellent
Sulfuric 10%	Poor

Precations: **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:

<u>Item No.</u>	<u>Package Size</u>
14277	50ml Dev-Pak

Contacts: www.itwpp.com

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