Technical Data Sheet

4/13/2018

1 Minute™ Epoxy Gel

Description: Super-fast epoxy which bonds to metals, glass, fiberglass, and ceramics. Sets up in 30 seconds for instant adhesion

Intended Use: Repairing furniture, jewelry, china, appliances and models.

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

Limitations: None

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	
Adhesive Tensile Lap Shear[GBS]	**1,600 psi @ 0.005" bondline**
Dielectric Strength	**490 volts/mils**
Gap Fill	**Good**
Impact Resistance	**4.5 ft. lb./in.(2)**
Service Temperature	**Dry, -40°F to 200°F**
Shore Hardness	**82 Shore D**
Solids by Volume	**100**
Specific Volume	**25.72 in.[3]/lb.**
Tensile Elongation	**1%**
Tpeel	**2-3 pli**

Uncured	
Color	**Opaque-Amber**
Fixture Time	**1 min. @ 72°F**
Full Cure	**2 hrs.**
Functional Cure	**1/2 - 3/4 hrs. @ 72°F**
Mix Ratio by Volume	**1:1**
Mix Ratio by Weight	**1:1**
Mixed Density	**9.4 lbs./gal.: 1.13 gm/cc**
Mixed Viscosity	**70,000 cps**
Working Time	**45 seconds [28 gm.@ 72°F]**

TESTS CONDUCTED

Cured Density ASTM D 792
Adhesive Tensile Shear ASTM D 1002
Cured Hardness Shore D ASTM D 2240

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.

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

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)*

Acetic (Dilute) 10%	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	Sulfuric 10%	Poor
Glycols/Antifreeze	Fair		

Precautions: Please refer to the appropriate safety data sheet (SDS) prior to using this product.
For technical assistance, please call 1-855-489-7262
FOR INDUSTRIAL USE ONLY

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.

Disclaimer: All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Performance Polymers makes no representations or warranties of any kind concerning this data.

Order Information: **14277 50 ml Dev-Pak**