



A brand of **ITW** Polymers Adhesives North America

Technical Data Sheet

10/6/2010

Epoxy Plus™ 25

Description: Rubber-toughened, high viscosity, structural adhesive with superior impact, peel and fatigue resistance.

Intended Use: Bonds metals, thermoset plastics and structural parts.

Product features: **Non-shrinking**
High dielectric strength
Excellent durability and flexibility

Limitations:

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]	2,750 psi @ 0.010" bondline
Dielectric Strength	550 volts/mils
Gap Fill	Good
Impact Resistance	10 ft.lb./in.(2)
Service Temperature	-40°F to 200°F
Shore Hardness	74 Shore D
Solids by Volume	100
Specific Volume	23.2 in.[3]/lb.
Tensile Elongation	20%
Tpeel	20-25 pli

TESTS CONDUCTED

Cured Density ASTM D 792
Dielectric Strength, volts/mil ASTM D 149
Adhesive Tensile Shear ASTM D 1002
Cured Hardness Shore D ASTM D 2240
T-Peel Strength ASTM D 1876

Uncured

Color	Resin: Grey; Hardener: White
Fixture Time	3-1/2 hrs. @ 72°F
Full Cure	30 hrs.
Functional Cure	24 hrs. @ 72°F
Mix Ratio by Volume	1:1
Mix Ratio by Weight	57:43
Mixed Density	9.5 lbs./gal.:1.20 gm/cc
Mixed Viscosity	70,000 cps
Viscosity	Resin: 60,000 cps; Hardener: 80,000 cps
Weight	Resin: 11.6 lbs/gal.; Hardener: 8.3 lbs./gal.
Working Time	25 min. [28 gm @ 72°F]

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

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**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%	Fair
Ammonia	Excellent
Corn Oil	Very good
Cutting Oil	Excellent
Gasoline (Unleaded)	Poor
Glycols/Antifreeze	Excellent
Hydrochloric 10%	Very good
Mineral Spirits	Excellent

Motor Oil	Excellent
Sodium Hydroxide 10%	Very good
Sodium Hypochlorite	Very good
Sulfuric 10%	Very good

Precautions:

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

For technical assistance, please call 1-800-933-8266

FOR INDUSTRIAL USE ONLY

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.

**Order
Information:**

14350 400 ml cartridge
14278 50 ml cartridge