Devcon®
A brand of ITW Polymers Adhesives North America

Technical Data Sheet
10/6/2010

HP 250

Description: High performance epoxy with high shear strength and impact toughness for structural assembly applications.

Intended Use: Bonds metals, FRP/SMC composites,phenolics, stainless steel, aluminum, vinyl esters, nylon, PVC,PC,styrenics, wood, and rigid plastics.

Product features:
Non-corrosive/outstanding chemical resistance
Excellent salt spray durability

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]	3,200 psi @ 0.010" bondline
Dielectric Strength	490 volts/mils
Gap Fill	Excellent
Impact Resistance	148 in-lbs
Service Temperature	-67°F to 250°F
Shore Hardness	78 Shore D
Solids by Volume	100
Specific Volume	25.5 in.(3) /lb.
Tensile Elongation	25%
Tpeel	35-40 pli

TESTS CONDUCTED
Cured Hardness Shore D ASTM D 2240
Adhesive Tensile Shear ASTM D 1002
T-Peel Strength ASTM D 1876

Uncured	
Color	Straw
Fixture Time	6 hrs. @ 72°F
Full Cure	7 days
Functional Cure	24 hrs. @ 72°F
Mix Ratio by Volume	2:1
Mix Ratio by Weight	100:42
Mixed Density	9.00 lbs/gal.: 1.08 gm/cc
Mixed Viscosity	105,000 cps
Viscosity	Resin: 120,000 cps; Hardener: 75,000 cps
Working Time	65 min. @ 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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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.

-CURE SCHEDULE-
7 days @ 25°c. For ultimate chemical and thermal resistance, allow parts to cure overnight at room temperature, then follow with 2 hours of 80 ° C exposure.

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%	Excellent
Ammonia	Excellent
Cutting Oil	Excellent
Ethanol	Very good
Gasoline (Unleaded)	Poor
Hydrochloric 10%	Excellent
Isopropanol	Very good
Mineral Spirits	Excellent

Motor Oil	Excellent
Sodium Hydroxide 10%	Very good
Sodium Hypochlorite	Excellent
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:
14315 50 ml Dev-Pak
14415 400 ml cartridge