Technical Data Sheet
Version 3. 04/2023

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.

Features: Non-corrosive with outstanding chemical resistance. Excellent salt spray durability.

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	Standard Tests
Adhesive Lap Shear (GBS)	3,200 psi (22 MPa)	Lap Shear (GBS) ASTM D1002
Dielectric Strength	490 volts/mil (19.3 Kv/mm)	Dielectric Strength ASTM D149
Impact Resistance	12.3 ft-lb/in2 (25.8 Kj/m2)	Shore Hardness ASTM D2240
Hardness	78 Shore D	Tensile Elongation ASTM D1876
Service Temperature	-67°F - 250°F (-55°C - 121°C)	
Solids by Volume	100%	
Specific Volume	25.5 in3/lb (0.92 cm3/g)	
Tensile Elongation	25%	
T-Peel	30-40 pli (5.25 - 7 N/mm)	

Uncured Properties @ 72°F (23°C)	
Color	Straw
Working Time	65 minutes
Fixture Time	6 hours
Functional Cure	24 hours
Full Cure	7 days
Mix Ratio by Volume	2:1
Mix Ratio by Weight	2.38:1
Mixed Density	9 lb/Gal (1.08 g/cm3)
Mixed Viscosity	105,000 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:

50 ML/400ML/490 ML CARTRIDGES

1. Attach cartridge to Mark V ™ or other General Purpose 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.

Speed up cure:

Allow parts to cure overnight at room temperature, followed with a 2 hour 176°F (80°C) post bake.

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 day immersion) @ 75°F (24°C)

Acetic 10% (Dilute)	Excellent	Isopropanol	Very Good
Ammonia	Excellent	Mineral Spirits	Excellent
Cutting Oil	Excellent	Motor Oil	Excellent
Ethanol	Very Good	Sodium Hydroxide 10%	Very Good
Gasoline (Unleaded)	Poor	Sodium Hypochlorite	Excellent
Hydrochloric 10%	Excellent	Sulfuric 10%	Very Good

Precations: **FOR INDUSTRIAL USE ONLY:** Please refer to the appropriate **S**aftey **D**ata **S**heet 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:

Item No.	Package Size
14315	50 mL cartridge
14415	400 mL cartridge

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