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Devcon

Technical Data Sheet
Version 3. 04/2023

10 Minute™ Epoxy (Black & Clear)

Description: A rapid-curing, general purpose adhesive/encapsulant.

Intended Use: Industrial Use: Bonds metals, fabrics, ceramics, glass, wood, and concrete (in combinations)

Features: **100% reactive, no solvents, Good Solvent Resistance, Bonds metals, fabrics, wood, and concrete**

Limitations: Suitability of product is determined by the end user for their application and process.

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)	2,400 psi (16.55 MPa)	Cured Hardness Shore ASTM D 2240
Dielectric Strength	800 volts/mil (31.5 kV/mm)	Dielectric Strength, volts/mil ASTM D 149
Hardness	75 Shore D	Tensile Lap Shear ASTM D1002
Impact Resistance	10 ft-lb/in^2 (21 kj/m^2)	
Service Temperature	-40°F - 200°F (-40°C - 93°C)	
Solids by Volume	100%	
Specific Volume	24.6 in^3/lb. (0.889 cm^3/g)	
Tensile Elongation	5%	
T-Peel	20-25 pli (3.5-4.4 N/mm)	

Uncured Properties @ 72°F (23°C)	
Color	Black or Clear
Working Time	10 minutes
Fixture Time	20 minues
Functional Cure	1.5 hours
Full Cure	12 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	80,000-90,000 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 ™ [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.

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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	Hydrochloric 10%	Poor
Ammonia	Poor	Isopropanol	Poor
Corn Oil	Very Good	Mineral Spirits	Excellent
Cutting Oil	Very Good	Motor Oil	Excellent
Ethanol	Poor	Sodium Hydroxide 10%	Poor
Gasoline (Unleaded)	Fair	Sodium Hypochlorite	Very Good
Glycol/Antifreeze	Very Good	Sulfuric 10%	Poor

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
14255	50ml cartridge (Black)
14251	50ml cartridge (Clear)

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Disclaimer:

Product Use: The information herein is based upon good faith testing that ITW PP believes are reliable, but the accuracy or completeness of such information is not guaranteed. Many factors beyond ITW PP control and uniquely within user's knowledge and control can affect the use and performance of an ITW PP product in a particular application. Given the variety of influencers on performance, the data here is not intended to substitute end user testing. It is the end users sole responsible for evaluating any ITW PP product and determining whether it is fit for a particular purpose and suitable for user's design, production, and final application.

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