

# 10 Minute™ Epoxy I-FR

**Description:** Flame Retardant, Non Brominated, Antimony free, 10-Minute™ Epoxy with impact resistance. Ideal for those applications requiring a self-extinguishing structural system.

**Intended Use:** Includes potting inserts and edge sealing for aerospace industry. Self-extinguishing structural epoxy system.

**Product features:**  
 Meets UL94V-0  
 Meets BSS 7239 Toxicity of Combustion Gas- Flaming Mode  
 Meets FAR 25.853 [d] Smoke Density  
 Meets FAR 25.853(a) 60 Sec. Vertical Burn  
 Non - Sag  
 RoHS Compliant

**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**

<b>Adhesive Tensile Lap Shear (GB ALUM)</b>	<b>2,700 psi</b>
<b>Adhesive Tensile Lap Shear[GB SS]</b>	<b>2,760 psi</b>
<b>Adhesive Tensile Lap Shear[GBS Steel]</b>	<b>2,500 psi</b>
<b>Dielectric Strength</b>	<b>800 volts/mil</b>
<b>Impact Resistance</b>	<b>95 in-lb/in.(2)</b>
<b>Service Temperature</b>	<b>-40°F to 200°F</b>
<b>Shore Hardness</b>	<b>84D</b>
<b>Solids by Volume</b>	<b>100</b>
<b>T-Peel (GB Steel)</b>	<b>15 pli</b>

**TESTS CONDUCTED**

Adhesive Tensile Shear ASTM D 1002  
 Dielectric Strength, volts/mil ASTM D 149  
 Tensile Strength (Epoxy) ASTM D 638  
 Cured Hardness Shore D ASTM D 2240  
 T-Peel Strength ASTM D 1876

**Uncured**

<b>Color</b>	<b>White</b>
<b>Fixture Time</b>	<b>20-25 min. @ 72°F</b>
<b>Full Cure</b>	<b>72 hrs. @ 72°F</b>
<b>Functional Cure</b>	<b>3 hrs. @ 72°F</b>
<b>Mix Ratio by Volume</b>	<b>1:1</b>
<b>Mix Ratio by Weight</b>	<b>100/92.5</b>
<b>Mixed Density</b>	<b>11.2 lbs/gal; 1.34 g/cc</b>
<b>Mixed Viscosity</b>	<b>150,000 cps</b>
<b>Specific Gravity</b>	<b>1.30</b>
<b>Viscosity</b>	<b>Resin: 150,000 cps; Hardener: 150,000 cps</b>
<b>Working Time</b>	<b>10 min. @ 72°F (20 gram )</b>

**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).

**CAPABILITIES:**

Can withstand processing forces.  
Do not drop, shock load, or heavily load.

**CHEMICAL RESISTANCE for AVIATION CHEMICALS:**

Jet A Fuel	Excellent
Skydrol 500 aviation hydraulic oil	Excellent
Conventional hydraulic oil	Excellent

**Storage:**

Store in a cool, dry place.

**Compliances:**

RoHS Compliant  
Meets FAR 25.853 [a] 60 sec. Vertical Burn Test  
Meets FAR 25.853 [d] Smoke Density  
Meets BSS 7239 Toxicity of Combustion Gas- Flaming Mode  
Meets UL94V-0

**Chemical Resistance:**

*Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75 °F*

Acetic (Dilute) 10%	Poor
Ethanol	Poor
Gasoline (Unleaded)	Fair
Glycols/Antifreeze	Very good
Hydrochloric 10%	Poor
Mineral Spirits	Very good
Motor Oil	Very good
Sodium Hypochlorite	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:**

**14258 50 ml cartridge**