



5 Minute® I-FR

Description: Flame Retardant, Non-Brominated, Antimony free, 5-Minute® 2-component epoxy paste. 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: **UL94V-0 Approval**
Non-Brominated/Antimony free
Meets BSS 7239 Toxicity of Combustion Gas- Flaming Mode
RoHS Compliant
Meets FAR 25.853 [a] 60 Second Vertical Burn
Meets FAR 25.853 [d] Smoke Density

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(AL)	1,430 psi
Adhesive Tensile Lap Shear(SS)	1,730 psi
Adhesive Tensile Lap Shear[GBS]	1,560 psi
Cured Density	11.1 lbs./gal.: 1.33 gm/cc
Dielectric Strength	490 volts/mils
Service Temperature	-40 °F to 200 °F
Shore Hardness	84 Shore D
Solids by Volume	100

Uncured

Color	White
Fixture Time	10-15 min.
Full Cure	12 hrs.
Functional Cure	1 hr. @ 72°F
Mix Ratio by Volume	1:1
Mix Ratio by Weight	100:95.4
Mixed Viscosity	55,000 cps
Specific Gravity	1.25
Viscosity	Resin: 70,000 cps; Hardener: 42,000 cps
Working Time	4-6 min (10 gm @ 72°F)

TESTS CONDUCTED

Adhesive Tensile Shear ASTM D 1002
Cured Hardness Shore D ASTM D 2240
Dielectric Strength, volts/mil ASTM D 149

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 of 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.

BONDLINE GUIDELINES:

All metal bonds were MEK wiped abraded (80 grit sandpaper) and MEK wiped again. Bondline thickness was a 0.010".

CAPABILITIES:

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

Storage:

Store at room temperature.

Compliances:

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

Chemical Resistance:

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

Acetic (Dilute) 10%	Poor	Isopropanol	Fair
Acetone	Poor	Kerosene	Excellent
Ammonia	Fair	Methyl Ethyl Ketone	Poor
Corn Oil	Excellent	Mineral Spirits	Excellent
Cutting Oil	Excellent	Motor Oil	Excellent
Ethanol	Poor	Sodium Hydroxide 10%	Fair
Gasoline (Unleaded)	Excellent	Sulfuric 10%	Poor
Glycols/Antifreeze	Fair		

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:

14272 50ml cartridge