MIX2FIX® FC Gray Adhesive (formerly PSI-327 Fast-Cure Epoxy Repair Compound)

Product description

MIX2FIX FC Gray Adhesive is a low-odor, two-component, modified epoxy adhesive that cures rapidly at room temperature with exceptional tensile adhesion and peel strength to a wide variety of substrates. Just a few minutes after application of the mixed product MIX2FIX FC Gray Adhesive forms a tough bond without the need for clamping.

Basic uses

MIX2FIX FC Gray Adhesive may be used as a general-purpose adhesive to bond metal, wood, fiberglass, glass, ceramics and many hard plastics. It forms a strong bond that is tough enough to be drilled, tapped, filed or sanded after final cure.

Benefits

- Contains no volatile solvents and does not shrink upon curing.
- Excellent adhesion to a wide variety of substrates.
- Fast-curing.
- Thixotropic.

Application limitations

- Does not adhere to polyethylene, polypropylene or PTFE.
- Becomes very hot during cure; do not mix more than 8 oz. (224 g.) total at once, i.e., 4 oz. (112 g.) each of Part A and Part B.
- Maximum temperature range is 250°F (121°C) continuous, 300°F (149°C) intermittent.
- See performance data for temperature limits.
- Do not apply at temperatures below 41°F (5°C).
- Not intended for structural applications.

Color

Cured color is Metallic Gray.

Packaging

Available in 5-US-gallon (19-liter) pails and 55-US-gallon (209-liter) drums. Special packaging available upon request.

How to use

Surface preparation: To achieve optimum adhesion, surfaces should be dry and free of grease or dirt. Grit-blasting or abrading the surface prior to cleaning helps insure a good bond.

Mixing and application: Wear impermeable gloves when mixing or handling uncured product. Mix equal portions of Part A and Part B by weight or volume until uniform. Do not mix more than 8 oz. (224 g.) total at one time, i.e., 4 oz. (112 g.) each of Part A and Part B. Material becomes very hot during cure. Use within 3 minutes of mixing; bonds made after 3 minutes may not develop full properties. Remove excess material before product begins to set.

Allow MIX2FIX FC Gray Adhesive to harden until a strong bond has formed before handling or returning to service, normally 60 to 90 minutes depending on the nature of the application. Product cures faster at higher temperatures and larger volumes, slower at lower temperatures and in thin sections.

Shelf life: One year from date of shipment when stored in original, unopened containers at 75°F (24°C). Optimum storage temperature is 50 to 59°F (10 to 15°C). Do not store below 41°F (5°C).

Health precautions

- Contains Epoxy Resin. Epoxies are skin/eye irritants and known sensitizers. Direct product contact may cause an allergic reaction in some individuals. Avoid skin/eye contact. Wear impermeable gloves when mixing or handling uncured product.
- Inhalation of dust may be harmful. Avoid inhalation of dust. Wear dust mask and protective eyewear when sanding cured product.
- Ingestion of product may be harmful. Avoid ingestion.
- KEEP OUT OF THE REACH OF CHILDREN.

For additional health and safety information, consult a Safety Data Sheet.

Performance Data*

Properties	Results	Test Methods
Uncured Properties		
Form	Two-part epoxy adhesive	
Physical appearance	Gel	
Odor (hardener)	Strong sulphurous smell (no odor when cured)	
Mixing ratio by weight or volume	1:1	
Viscosity	250,000 cps	
Mixed density	12.5 lb/gl (1.5 g/cm^3)	
Application temperature	50 to 95°F (10 to 35°C)	
Work life, 3 grams at 75°F (24°C)	5 minutes	
Handling time at 75°F (24°C)	1 hour	ASTM D1002
Return to service time 75°F (24°C)	16 hours	
Cured Mechanical Properties		
Physical appearance when cured	Metallic gray solid	
Hardness, Shore D	65	ASTM D2240
Tensile strength	5,000 psi (34 MPa)	ASTM D925
Lapshear tensile adhesive strength**		ASTM D1002
Steel to steel	1,300 psi (9.0 MPa)	
Aluminum to aluminum	1,100 psi (7.6 MPa)	
Glass to glass	>100 psi (0.7 MPa)	
Fiberglass to fiberglass	>600 psi (4.0 MPa)	
Wood to wood	>400 psi (2.8 MPa)	
Compressive strength	7,250 psi (50 MPa)	ASTM D695
Temperature limits		
Continuous	-40°F to +250°F (-40°C to +121°C)	
Intermittent	-40°F to +300°F (-40°C to +149°C)	
Chemical resistance	Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions, dilute acids and bases	

** Typical properties are for information only, not for purposes of specification. The data above represents product performance in ideal laboratory conditions. Individual users' experience may vary depending on application conditions.*

*** Steel, Aluminum and Glass Substrate IPA solvent wipe only; others abraded.*

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