



# MIX2FIX® GP Steel

## Product description

MIX2FIX GP Steel is a general-purpose, two-part epoxy paste with a high steel-alloy particle content (35%). It can be used to make tough, permanent repairs that will be rust-free and can be treated like steel.

## Basic uses

MIX2FIX GP Steel spreads easily to fill large and small gaps on both vertical and horizontal surfaces. It can be successfully applied to metal, ceramics and porcelain, concrete, wood, and some hard plastics. When fully cured, conventional metalworking techniques can be used to machine, tap, drill, file, sand, and paint the finished repair.

Use MIX2FIX GP Steel to fill holes and cracks; repair broken, damaged or worn parts such as castings, valves, tanks, fabrications, low-pressure pipes, wood and metal fittings, shafts, housings, keyways, and flanges; repair cast-steel plates; make small-scale repairs to metal components; level machinery; and make templates.

## Benefits

- Simple preparation.
- Spreads easily.
- Can be shaped to required profile.
- Repositioning possible for up to 30 minutes.
- Does not shrink.
- Excellent chemical resistance.
- Good adhesion to a variety of metals, ceramics and hard plastics.

## Application limitations

- Does not adhere to polyethylene, polypropylene or PTFE.
- 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 a Metallic Gray.

## Packaging

Available for private label. Packaging options to

be determined. Minimum batch quantities apply.

## How to use

**Surface preparation:** All surfaces should be clean, dry and free from all contamination, particularly oils and greases, which will impair bond and could lead to premature failure. Ideally surfaces should be abraded with a fine emery cloth, followed by a solvent wipe with dry acetone or commercially available degreaser. Apply mixed product immediately after cleaning to avoid possible post-cleaning contamination.

**Mixing and application:** Wear impermeable gloves when mixing or handling uncured product. Measure out equal amounts of resin and hardener, using different utensils for each to avoid contamination. Use only the amount needed for the job at hand. Mix together for a minimum of 3 minutes with a spatula until uniform in color. Use a spatula to apply to clean, dry surface and remove excess material before the paste has set.

To achieve a glossy finish, smooth the surface immediately after application with a knife moistened with a solvent such as acetone or mineral spirits. Working time is 60 minutes at 68°F (20°C), but it is recommended that repairs be completed within 30 minutes to avoid disturbing the repair as it begins to set.

MIX2FIX GP Steel will start setting within an hour at 68°F (20°C), depending on volume and temperature: the greater the volume (or higher the temperature), the faster it will set. Allow

## 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.*

6 hours before handling and 48 hours before returning to service. The application can be drilled, tapped, filed or sanded to shape, and painted after 48 hours.

For advice on building multiple layers, please contact PSI's technical services department.

**Shelf life:** Two years from date of shipment when stored in dry storage area in unopened container at 68°F (20°C).

Performance Data*		
Properties	Results	Test Method
<b>Uncured Properties</b>		
Composition	Steel-filled epoxy resin	
Physical appearance	Paste	
Odor (hardener)	Faint amine smell (no odor when cured)	
Mixing ratio by weight and volume	1:1	
Viscosity	3,500,000 cps	
Mixed density	20 lb/gl (2.5 g/cm <sup>3</sup> )	
Maximum thickness in one pass	<0.47 in (12 mm)	
Application temperature	50 to 95°F (10 to 35°C)	
Work life at 68°F (20°C)	1 hour	
Handling time at 68°F (20°C)	6 hours	
Return to service time at 73°F (23°C)	48 hours	
<b>Cured Properties - 7-day cure at 73°F (23°C)</b>		
Physical appearance	Metallic gray solid	
Hardness, Shore D	75	ASTM D2240
Tensile strength	3,250 psi (22 MPa)	ASTM D925
Lap shear tensile strength on steel	1,740 psi (12 MPa)	ASTM D1002
On aluminum	650 psi (4.5 MPa)	ASTM D1002
Compressive strength	7,250 psi (50 MPa)	ASTM D695
Temperature limits		
Continuous	-4 to +248°F (-20 to +120°C)	
Intermittent	-4 to +302°F (-20 to +150°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..		

### Contact Details

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