



Toll Free: 87 PERMATEX
(877-376-2839)

10 Columbus Blvd., Hartford,
Connecticut 06106

6875 Parkland Boulevard, Solon
Ohio 44139

Technical Data Sheet

Permatex® Steel Weld™

AAM Revised 05/14

PRODUCT DESCRIPTION

Permatex® Steel Weld™ is a two part, hand kneadable, steel reinforced, putty type industrial strength epoxy adhesive in stick form. Contrasting grey and black colored materials are mixed together to form a uniform metallic grey color to indicate thorough mixing. After 1 hour, Steel Weld™ can be drilled, sanded, threaded, machined or painted and it is resistant to water and most solvents. Steel Weld™ is also NSF approved for use with repairs that are exposed to potable water. **Permatex® Steel Weld™ is not intended for structural applications.**

PRODUCT BENEFITS

- Easy to use
- No heating required
- Sets in 5 minutes
- Cures and useable in 1 hour
- Safe for repairs that come in contact with drinking water
- Good moisture resistance
- Withstands moderate temperatures
- Cured material will not shrink
- Non-flammable
- Contains no solvents or VOC's

Bonds to most metals including:

- Steel
- Aluminum
- Stainless Steel
- Iron
- Copper
- Bronze
- Brass

DIRECTIONS FOR USE

1. Before starting, make sure your work area is protected from accidental spills. Surfaces must be clean, dry and free of grease and oil. **Note: Wear impervious gloves when mixing or handling uncured Steel Weld™.**
2. Roughen smooth surfaces to be repaired with sandpaper or mechanically.
3. Cut off required amount of epoxy stick and knead with fingers to a uniform color. This should take no longer than two minutes. **Note: After mixing, Steel Weld™ has a 3 to 5 minute work life.**
4. Apply to the surface to be repaired. Force into cracks or holes to be filled. Excess material can be removed, before it is cured, with a tool wetted with clean water.
5. On wet or damp surfaces, work material into area forcefully and hold in place until adhesion begins. Do

not use hands to hold in place as heat is given off during cure.

6. After 3 to 5 minutes, the epoxy will harden.
7. After 1 hour, the cured material can be drilled, sanded, tapped, threaded, machined or painted.

For Cleanup

1. Cleanup must be completed before the product has cured. Use acetone or mineral spirits for project/tool cleanup.
2. Clean hands with Permatex® Fast Orange® hand cleaners.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Epoxy and mercaptan resins
Appearance	grey outside, black inside
Odor	Slight mercaptan
Specific Gravity (mixed)	2.25 g/ml
Flash Point, SCC, °F	>200
Mix Ratio	1:1
Tensile Strength, steel	900 psi

TYPICAL CURING PERFORMANCE

Permatex® Steel Weld™ has a set up time of 3 to 5 minutes, functionally cures in 1 hour, and fully cures in 24 hours.

TYPICAL ENVIRONMENTAL RESISTANCE

Temperature Resistance	Typical Values
Continuous, °F Maximum	-40°F to 250°F
Intermittent, °F Maximum	-40°F to 300°F

Chemical / Solvent Resistance

This product retains effective properties when in contact with water, hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions, and dilute acids and bases.

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as an adhesive for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

ORDERING INFORMATION

Part Number	Container Size
84332	2 oz. Steel Weld™ with vial, carded

NOT FOR PRODUCT SPECIFICATIONS.

THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.

PLEASE CONTACT PERMATEX, INC., TECHNICAL SERVICE DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS FOR YOUR SPECIFIC APPLICATION.
PERMATEX, INC., HARTFORD SQUARE NORTH, 10 COLUMBUS BOULEVARD, HARTFORD, CT 06106 PHONE - (1-877)PERMATEX

STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C and 28°C (46°F and 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

NOTE

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. **Permatex, Inc. specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Permatex, inc. products and disclaims any liability for consequential or incidental damages of any kind, including lost profits.** This product may be covered by one or more United States or foreign patents or patent applications.