PRODUCT DESCRIPTION
Permatex® Steel Weld® epoxy is a premium two part, high strength, metal-filled epoxy adhesive system. Permatex® Steel Weld® epoxy can be drilled, threaded, and machined once fully cured. It repairs, fills and bonds most metal surfaces. It is resistant to most shop fluids including fuels, oil, water, and solvents. NOTE: Permatex® Steel Weld® will not bond polyethylene and polypropylene plastics.

PRODUCT BENEFITS
- Will not shrink
- No clamping needed
- Non-flammable
- Dark grey color
- Impact resistant
- Water resistant
- High temperature resistant
- Useable in 30 minutes

TYPICAL APPLICATIONS
- Aluminum
- Brass
- Chrome
- Copper
- Iron
- Stainless Steel
- Steel
- Zinc

DIRECTIONS FOR USE
1. Protect work area from accidental spills.
2. Surface must be clean, dry and free of grease & oil.
3. Slightly abrade the mating surfaces with sandpaper.
4. Remove the plastic tab from the tip of both nozzles.
5. Depress plunger on syringe or squeeze out of tubes equal amounts of resin and hardener.
6. Apply to surfaces being repaired. Assemble parts immediately. Remove excess epoxy immediately.
7. Allow bond to set for the fixture time before handling or moving. Product fully cures in 24 hours.

For Cleanup
1. For any cleanup, use isopropyl alcohol before the material is allowed to dry.
2. Clean hands with Permatex® Fast Orange® hand cleaner or soap and water.

PROPERTIES OF UNCURED MATERIAL

<table>
<thead>
<tr>
<th>Typical Value</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Type</td>
<td>Epoxy and Mercaptan/Amine Resins</td>
</tr>
<tr>
<td>Mix Ratio</td>
<td>1:1</td>
</tr>
</tbody>
</table>

Appearance
- Resin: Black
- Hardener: Off white/White
- Odor: Mild

Specific Gravity
1.75 - 1.85

Flash Point, TCC
>300°F

Viscosity
Paste

USAGE PROPERTIES

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Working Time</th>
<th>Fixture Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>84109</td>
<td>4 – 5 minutes</td>
<td>8 – 10 minutes</td>
</tr>
<tr>
<td>84209</td>
<td>4 – 5 minutes</td>
<td>8 – 10 minutes</td>
</tr>
</tbody>
</table>

Final color
Grey

Temperature range
-60°F to +300°F (Continuous)
+350°F (Intermittent)

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Container Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>84109</td>
<td>4 min. Multi-Metal Epoxy, 0.84 fl. oz. dual syringe, carded</td>
</tr>
<tr>
<td>84209</td>
<td>4 min. Multi-Metal Epoxy, 2 – 1 oz. tubes, carded</td>
</tr>
</tbody>
</table>

STORAGE
Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°C) 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
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PLEASE CONTACT PERMATEX, INC., TECHNICAL SERVICE DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS FOR YOUR SPECIFIC APPLICATION.
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