



AM 4910 Ceramic Carbide Metal Repair

Product Description

AM 4910 is a rugged ceramic filled repair/wear compound for severe environments such as chutes, crushers, dry bag houses and slurry tanks.

AM 4910 offers exceptional abrasion resistance, cures in very low temperatures and tolerates less than optimal conditions.

Chemical Resistance:

- Acetic Acid up to 10%
- Ammonium Hydroxide*
- Aromatic & Aliphatic Solvents
- Black Liquor
- Butyl Acetate
- Butyl Carbitol
- Most Chlorides
- Hydrogen Sulfide
- Isopropyl Alcohol
- Mineral Acids
- Nitric Acid up to 45%
- Mild Organic Acids
- Most Phosphates
- Phosphoric Acid
- Potassium Hydroxide*
- Sodium Hydroxide*
- Most Sulfides
- Sulfuric Acid up to 80%
- 1,1,1-Trichloromethane
- Urea Solutions
- White Liquor

*Ambient temperature only

Physical Properties:

Adhesion Strength:

Test Method: **ASTM 4541**
Typical Value: **2,500 PSI**

Abrasion Resistance:

Test Method: **ASTM D 4060 CS17 WHEEL**
Typical Value: **1000 CYCLES 25 MG**

Rockwell Hardness:

Test Method: **ASTM D 2240**
Typical Value: **80**

Compression Strength:

Test Method: **ASTM D695**
Typical Value: **17,000 PSI**

Flexural Strength:

Test Method: **D 790**
Typical Value: **13,000 PSI**

Tensile Shear Strength:

Test Method: **ASTM D 1002**
Typical Value: **3,500 PSI**

Color:

Resin: Black; Hardener: Red

Container Size:

1 gallon and 4x1 kg kits

Coverage per gallon (Theoretical):

12.8 sq. ft. @ 1/8" thickness

Mix Ratio by Volume/Weight:

5:1 (Resin: Hardener)

Flash Point:

Greater than 200°F (93.5°C)

Pull-Off Adhesion Test ASTM D 4541:

Minimum adhesion is 2850psi

Coefficient of Thermal Expansion:

1.1 (10-6/per °F)

Thermal Stability:

0.0003 grams
(weight loss after 48 hours @ 300°F)

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1.1 (10-6/per °F)

Specific Gravity:

Resin: 2.32; Hardener: 1.02

Volatile Organic Compounds (VOC):

0 grams/liter

Weight Per Gallon:

15.30 lbs

Pot Life:

@ 45°F (7°C): 1 hour 10 minutes
@ 75°F (24°C): 40 minutes
@ 92°F (33°C): 25 minutes

Note: Do not keep the blended coating in the original container unless immediate use is planned. Otherwise, exothermic—heat created during the curing process—will considerably shorten the pot life. Pour the coating into a rolling tray or large aluminum-basting pan. Try to keep the depth of the coating in the tray below 3/8".

Service Temperature:

Dry Service: 360°F (182°C) Spill/
Splash: 300°F (149°C)
92°F (33°C): 240°F (115.5°C)

*immersion with solvents, mineral acids, or alkaline, or if over 150°F, contact factory.

CURE TIME @ 75°F or 24°C:

Re-coat Window: 1/2 hours
Light Loading: 6 hours
Immersion (Aqueous)
Service: 24 hours
Full/Chemical Service: 120 days

Product Features & Benefits

- 100% Solids, No VOCs
- Excellent UV stability
- Excellent impact resistance and corrosion protection

Top-Coating & Joining Adjacent Sections:

If the compound is to be coated, apply the coating within the re-coat window (see table below). If this is not possible, allow the compound to cure, then brush-blast, wire-brush or sand to create a mechanical profile on the surface before coating.

When it is necessary to join multiple sections of the compound to create a continuous protective layer over a large area, do not attempt to feather and overlap adjoining sections. If adjoining sections cannot be applied within the re-coat window (see table below), continue the full thickness of the compound up to the joint between sections.

Allow the first section to cure, and then create a mechanical profile, using one of the means listed above, on the edge that will be joined to the next section to ensure a satisfactory bond.

Safety:

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using.

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