



Patcher™ R4

metal rebuild paste

DESCRIPTION

Patcher™ R4 is a polymer ceramic composite chemistry incorporating an advanced proprietary blend of ceramic and metallic additives with an epoxy resin. The matrix is designed to achieve maximum build and strength to repair metal loss, fill deep pits, create coves, reface flanges and manway doors. For higher temperature or aggressive chemical service Patcher R4 should be replaced with Patcher R4HT. This is a two part system, 100% solids, solvent free, zero VOCs technology. Patcher products are short pot life, fast drying pastes designed to be applied by trowel or flexible spreaders.

SUGGESTED USES :

Metal rebuild	Metal resurfacing	Fill cavitation areas	Metal bonding
Flange face rebuild	Fill voids and holes	Seal castings	Crack repair

PERFORMANCE PROPERTIES

Performance Property	Test Method	Result
Hardness	ASTM D 2240	90 Shore D
X-cut Adhesion	ASTM D 6677	Rating 10
Pull off Adhesion	ASTM D 4541	Greater than 1, 500 psi
Abrasion	ASTM D 4060	Less than 20 mg loss
Chemical Resistance	ASTM D 543	Very good
Temperature Resistance	Bake cycle	Up to 250 °F (will darken)
Solids Content	ASTM D 1259	100%
Volatile Organic Compounds	ASTM D 2369	0 grams/liter

PHYSICAL PROPERTIES

Color: Dark gray (will darken with elevated temperature exposure)
Pot Life at 77°F : 20 minutes
Pot Life at 90°F : 10 minutes
Application Temperature: 55-90 °F
Dry to Touch at 77°F : 4 hours
Cure Time: 12 Hours @ 77°F
Min. Recoat Time at 77°F: 4 hours
Max. Recoat Time at 77°F: 24 hours
Coverage - 1604 sqft/gallon/mil

MIXING INSTRUCTION

This is a two-component system with a mix ratio of 1:1 by volume. Prior to mixing, components A Resin and B Hardener should be at room temperature (60-80 °F). Pre mix Resin Part A and hardener Part B individually, be sure that any settled material at the bottom of the container is dispersed. Hand mix for 2 minutes until a uniform colour and consistency is achieved. Pour equal amounts on Part A and Part B onto a plastic work surface. Do not work with more than 1 pound of material at a time. Using a flexible spreader, mix Part A and Part B together for 2 minutes until a uniform color and consistency is achieved. , Begin application immediately – no induction time.

SURFACE PREPARATION

- 1) Ensure that surface is clean, dry and uncontaminated. Proceed only if the substrate temperature is more than 5°F above the dew point temperature during surface preparation and coating application.
- 2) Abrasive blast clean with garnet or aluminum oxide (G40 or coarser). DO NOT USE steel shot or non-angular media.

For steel surfaces, blast to a White Metal Blast (SSPC-SP5; NACE 1; SA 3):

- minimum 3.5 mil profile for immersion and elevated temperature service.
- minimum 2.5 mil profile for buried underground service;
- minimum 1.5 mil profile for atmospheric service.

CLEAN-UP AND STORAGE

- 1) Use commercial solvents (Acetone, Xylene, Methyl Ethyl Ketone) to clean tools immediately after use.
- 2) Once the coating is dry, the material must be abraded off.
- 3) Keep containers tightly sealed and store upside down. For cleanup, M.E.K. or a 50:50 blend of M.E.K. and Xylol.
- 4) Store between 10°C(50°F) and 27°C(80°F). DO NOT FREEZE. Use product within 6 months of receiving.

APPLICATION INSTRUCTIONS

Once mixed, the product may be applied by trowel, putty knife or brush. Work the material into the surface profile to completely wet out the substrate surface to ensure proper adhesion.

To improve the appearance of the material a low nap roller may be used to back roll the material. No reducing or thinning of the material is permitted.

SAFETY

Before using any products, please refer to the Material Safety Data Sheet (MSDS). Follow standard confined space entry and work procedures, if appropriate.

Wear eye safety protection, chemical resistant gloves. Use NIOSH approved respirator where mist occurs.