Novocoat EP4900 Ceramic Carbide

SELECTION & SPECIFICATION DATA

Type
Ceramic-filled Novolac Epoxy

Description
Novocoat EP4900 Ceramic Carbide is a high performance ceramic filled novolac epoxy repair/wear compound for severe environments such as coal chutes, coal silos, rock crushers, and dry bag houses. Novocoat EP4900 Ceramic Carbide offers exceptional abrasion resistance, cures in very low temperatures and tolerates less than optimal substrate conditions.

Features
- 100% solids, no VOCs
- Outstanding abrasion resistance
- Application and cure at room temperature - no hot work involved
- No shrinkage, expansion or distortion
- Quick return-to-service under proper cure conditions
- Meets the performance requirements of AWWA C210 and FDA requirement 21 CFR 175.300 for food contact.

Uses
- Coal chutes and silos
- Dry bag houses
- Non-skid
- Rock crushers

Color
Light gray

Finish
Matte

Solids Content
99 – 100% by volume

SUBSTRATES & SURFACE PREPARATION

All
Substrate must be clean, dry and free of contaminants.

Steel
Immersion: SSPC-SP 10/NACE 2 Near White Metal Blast with angular profile of 2.5 – 3.5 mils.

Non-immersion: SSPC-SP 6/NACE 3 Commercial Blast with angular profile of 1.5 – 3.0 mils, SSPC-SP2 Hand Tool or SSPC-SP3 Power Tool Cleaning are suitable for mild environments.

Self-priming on steel.

Weld Repair
Use a flame to sweat out oil from deeply impregnated surfaces. Stabilize cracks by drilling the extremities. Long cracks should be drilled, tapped and bolted every few inches. Vee-out all cracks using a file. De-grease using clean rags.

Temperature
Surface should be at least 10°C (50°F) and relative humidity not to exceed 90%. Maximum substrate temperature should not exceed 140°F (60°C). Contact ErgonArmor if the substrate temperature exceeds 140°F (60°C).

MIXING & THINNING

Ratio
10A:1B by weight

Mixing
DO NOT MIX PARTIAL KITS. Transfer the entire contents of the Resin and Hardener onto the plastic mix board. Mix together thoroughly until color of material is uniform and free of any streaks.

Thinning
Do not thin.

Pot Life
40 minutes at 75°F (24°C)

Pot life is shorter at higher temperatures. A larger volume of mixed material will have a shorter pot life than a smaller volume.

Cleanup
MEK or Acetone

APPLICATION GUIDANCE

Application
Apply directly onto the prepared surface with the plastic applicator or spatula provided. Press down firmly to remove entrapped air, fill all cracks, and ensure maximum contact with the surface. Use reinforcement cloth over holes and cracks.

Brush & Roller
Brush or roller can be used to smooth uncured surface with solvent if desired.

CURE SCHEDULE & RECOAT WINDOW

TEMPERATURE	MINIMUM RECOAT	MAXIMUM RECOAT	RETURN-TO-SERVICE (HYDROCARBON IMMERSION)
50°F (10°C)	1 hour	48 hours	7 days
77°F (25°C)	1 hour	36 hours	24 hours
140°F (60°C)	15 minutes	45 minutes	4 hours

Return-to-service will vary with cargo. Consult with ErgonArmor Techincal Service for guidance.

SAFETY

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 safety data sheets before using.

Ventilation
Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

ESTIMATING & PACKAGING

Theoretical Coverage
6.30 square feet at 250 mil per 7.5 kg unit
1.26 square feet at 250 mil per 1.5 kg unit
Allow for loss in mixing and application.

Package Sizes
Light Gray, 16.5 lbs (7.48 kg) Kit
- Part A Resin Light Gray, 15 lbs (6.8 kg) Pail
- Part B Hardener, 1.5 lbs (0.68 kg) Jar

Item #: M-EP4910-1GLKT-01

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TYPICAL PHYSICAL PROPERTIES

TEST METHOD	RESULTS
Dry adhesion ASTM D4541 Blasted steel 1 coat	>2,800 psi
Flash point ASTM D1310	Greater than 200°F (93.5°C)
Tabor abrasion ASTM D4060 1000 cycles, H-22 wheels, 1 kg load	110 mg 83 cyles per mil
Coefficient of thermal expansion	1.1 x 10^{-6}/°F
Thermal stability 48 hours at 300˚F (149˚C)	0.0003 gram loss
Specific gravity	Part A: 2.32 Part B: 1.48
VOC	0 grams/liter
Density maximum	16.50 lbs/gal

SERVICE TEMPERATURE

SERVICE	MAXIMUM TEMPERATURE
Dry	360°F (182°C)
Splash/spill	300°F (149°C)
Immersion*	240°F (115.5°C)

*Immersion with solvents, mineral acids, or alkalis, or if over 150˚F (66˚C) consult ErgonArmor Technical Service.

STORAGE & SHELF LIFE

Shelf Life

Part A: 24 months at 75°F (24°C)
Part B: 12 months at 75°F (24°C)
When stored under recommended conditions.

Storage Conditions

40°F – 110°F (4°C – 43°C)
0 – 100% relative humidity

Store in a dry area out of direct sunlight. Maintain product in original packaging and sealed until ready for use.

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