GreenShield MaxMohs

High Temperature Erosion Coating

DESCRIPTION

GreenShield MaxMohs is an inorganic water based ceramic coating technology incorporating an advanced proprietary blend of ceramic and metallic additives. The coating is designed to achieve maximum wear resistance characteristics for metallic surfaces subjected to severe high temperature erosion. This single component technology is 50% solids by weight containing zero VOCs.

SUGGESTED USES :

Boiler waterwalls	Economizer tubes	Air heater tubes	Wear plates
Superheater tubes	Steam drum	Tube shields	Fireside components

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 8,000 kPa (1, 200 psi)
Abrasion	ASTM D 4060	Less than 15 mg loss
Temperature Resistance		Up to 1200 °C
Viscosity, cP		3,000 to 4,000 cP
Solids Content	ASTM D 1259	50 %
Volatile Organic Compounds	ASTM D 2369	0 grams/liter

PHYSICAL PROPERTIES

Color	Green
No. Components	Single
Air Dry (23 °C / 50% RH)	15 to 20 minutes
Heat Cure	37 °C per hour to 550 °C (consult with manufacturer)
Min Recoat	Dry to touch (print free)
Max Recoat	24 hours
Max thickness per coat	70 microns (wet)
Suggested thickness	150 to 200 microns (dry)

MIXING INSTRUCTION

This is a single-component system. THIS PRODUCT CONTAINS HEAVY LOADING OF CERAMIC ADDITIVES. SETTLING IN THE PRODUCT IS COMMON. THE PRODUCT SHOULD BE MIXED FREQUENTLY DURING APPLICATION. Mix contents for 2 to 3 minutes until a uniform colour and consistency is achieved and the product is well dispersed. To ensure complete mixing, scrape sides and bottom of container and continue mixing for an additional 1 or 2 minutes. DO NOT HAND MIX. Begin application immediately – no induction time.
Skinning of the product may occur if left open for a period of 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 abrasive media (30/60 or coarser) garnet, aluminum oxide or appropriate media to achieve the cleanliness and angularity required 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 50 microns (2 mils) to 75 microns (3 mils) profile for high temperature service.

CLEAN-UP AND STORAGE

1) Use warm soup and water to clean tools immediately after use.
2) Once the coating is dry, the material must be abraded off.
3) 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 material must be screened with 60 to 80 mesh filter. The product may be applied by airless or conventional spray. Teflon packings are recommended and available from the pump manufacturer. Prior to use, flush all equipment with clean potable water. Frequently mix material during application. If spraying stops for more than 60 minutes, recirculate the material remaining in the spray line. Do not leave product in the hoses for long durations.
Conventional set up
Pressure pot equipped with dual regulators, Material hose: 3/8" I.D. (minimum) with a maximum length of 50', 0.070" I.D. fluid tip and appropriate air cap.
Airless set up
Pump Ratio: 30:1 (minimum), Material hose: 3/8" I.D. (minimum), Tip size: 0.013-0.015", Output PSI: 1750-2400, Filter size: 80 to 100 mesh
The product is applied in thin multiple passes to a maximum thickness of 35 microns (1.4 mils) dry per pass. Each pass must be dry to touch prior to applying additional coats.

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.

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