

High Purity Chromium Oxide Powder

MetaCeram® 25050



COATING

- Two-step “Cold Process” powder
- Excellent resistance to abrasive wear and mechanical shock
- Precise particle sizing ensures coating consistency
- Excellent corrosion resistance



DESCRIPTION:

MetaCeram 25050 is a high purity chromium oxide powder and is designed for use with high energy combustion thermal spray equipment like the TeroDyn® 2000 or conventional plasma spray processes. Coatings produced exhibit excellent resistance to abrasion, cavitation, erosion and corrosion by acid, alkalis and alcohol solutions. For aqueous corrosion applications, coatings should be sealed and should be applied over a suitable bond coating.

TECHNICAL DATA:

Coating Properties:

Typical macro-hardness: Rockwell 15N Scale, 88-92
Typical density: 4.8 g/cc
Thickness limit: 0.020-0.025 inch
Max. service temperature: 1,000°F (538°C)
Typical micro hardness: DPH_{300g} 900-1200
Porosity: <5%

Powder Properties:

Carney flow rate: 11 seconds
Bulk density: 2.3 g/cc
Powder coverage: 0.021 lbs/ft² @0.001"
Typical melting point: 4415°F (2250°C)

PROCEDURE FOR USE:

Coatings of MetaCeram 25050 should be rough ground with 120 grit silicon carbide or 150 grit diamond wheels. Finish grind using a 400 grit diamond wheel.

TYPICAL APPLICATIONS:

- Pump Seals
- Pump plungers
- Wear rings
- Pump impellers
- Heater tubes
- Diesel cylinder liners
- Cam followers
- Thread guides
- Draw drums
- Soldering iron tips
- Buffing fixtures
- Water turbine nozzles
- Plug gauges

RECOMMENDED COATING & SPRAY PARAMETERS:

BOND COAT MUST BE USED

TD 2000*	
Nozzle	RL 210 or RL 210-W
Module Adaptor	Aqua
RotJet	RPA 3@40psi air
Oxygen	50 psi / 35 flow (FM-1 flowmeter)
Acetylene	12 psi / 75 flow (FM-1 flowmeter)
T-Valve Setting	6 clicks
Coating Rate	3.0 lbs/hr
Spray Distance	4-6 inches

CDS 8000*	
Nozzle	55m 30
Powder Module	1-2
Compressed Air	40-45 psi
Rotational Speed	200 sfpm
Advance	0.125 in/rev
Spray Distance	3-3.5 inches

* Pre-heat of 300°F (150°C) minimum must be maintained at all times until final build-up is reached. A maximum temperature of 500°F (260°C) should not be exceeded during the build-up.

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