



High Purity Chromium Oxide Powder

MetaCeram®

25050



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

MetaCeram® 25050

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.

Metaceram 25040 will require a bond coat.

TECHNICAL DATA

Typical Coating Properties	
Macro-hardness:	Rockwell 15N Scale, 88 - 92
Density:	4.8 g/cc
Thickness Limit:	0.020 - 0.025 inch
Max. Service Temperature:	1000°F (538°C)
Micro-hardness:	DPH _{300g} 900 - 1200
Porosity:	< 5%
Typical Powder Properties	
Flow Rate:	11 seconds
Bulk Density:	2.3 g/cc
Powder Coverage:	0.021 lb/ft ² @ 0.001"
Melting Point:	4415°F (2250°C)

PROCEDURE FOR USE

Finishing Procedure: 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.

Recommended Parameters - *Bond Coat Must Be Used*

TD 2000*

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

CDS 8000*

Nozzle:	SSm 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.*

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

Observe normal spraying practices, respiratory protection and proper air flow pattern advised. For general spray practices, see AWS Publications AWS C2.1-73, "Recommended Safe Practices for Thermal Spraying and AWS T55-85, "Thermal Spraying, Practice, Theory and Application." Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations. DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.



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