



An Atomized Blend of Aluminum
and Titanium Oxides

MetaCeram[®]

25060



- Two-step “Cold Process” powder
- Excellent resistance to abrasion, cavitation and corrosion
- Offers a low coefficient of friction with most mating surfaces
- Precise particle sizing ensures coating consistency

MetaCeram® 25060

Eutectic 25060 is a blend of aluminum oxide (Al_2O_3) and titanium dioxide (TiO_2) powders and is designed for use with high energy combustion thermal spray equipment like the TeroDyn® Sytems 2000, 3000, CDS 8000 or conventional plasma spray processes. The coatings produced exhibit excellent resistance to abrasion, cavitation, corrosion and offer a low coefficient of friction with most mating surfaces.

Metaceram 25040 will require a bond coating in n early all applications. Use Proxon 50000 or 21031.

TECHNICAL DATA

Typical Coating Properties

Macrohardness:	Rockwell 15N Scale, 85
Density:	3.7 g/cc
Max. Service Temperature:	1000°F (538°C)
Micro-hardness:	DPH _{300g} 800

Typical Powder Properties

Flow Rate:	12 seconds
Bulk Density:	1.8 g/cc
Powder Coverage:	0.021 lb/ ft ² @ 0.001"
Melting Point:	3340°F (1806°C)

PROCEDURE FOR USE

Finishing Procedure: Coatings of MetaCeram 25060 should be rough ground with 120 grit silicon carbide or 150 grit diamond wheels. Finish grind using a 400 grit diamond wheel.

Recommended Parameters

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
Deposit Efficiency:	65%

TD 3000*

Nozzle:	RL 210 or RL 210 W
Terometer:	50
Oxygen:	50 psi / 38 flow
Acetylene:	12 psi / 62 flow
Carrier Gas:	Ni or Ar @ 55 psi
Coating Rate:	2.5 lb/hr
Deposit Efficiency:	85%
Spray Distance:	3 to 4 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

- Thread Guides and Spindles
- Computer and Recording System Heads
- Sealing Rings for Bearings
- Shaft Seal Areas
- Sliding Surfaces
- Pump Shafts

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 TSS-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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