



A Blend of Aluminium Oxide (Al_2O_3)
and Titanium Dioxide (TiO_2) Powders
for use with Thermal Spray Equipment or
Conventional Plasma Spray Processes

Eutectic 25030



- Excellent interparticle bond strength
- Can be ground or lapped to a fine finish
- Very good corrosion and abrasion resistance
- Excellent for applications with electrolytic corrosion

Eutectic 25030

Eutectic 25030 is a blend of aluminium 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® 2000 or conventional plasma spray processes.

Coatings produced with this powder are dense with excellent interparticle bond strength and can be ground or lapped to a fine finish.

Very good corrosion and abrasion resistance makes this a good material for pump seals.

TECHNICAL DATA

Typical Values*	
Typical Hardness:	80 HRC (15N converted)
Typical Micro-hardness:	DPH _{300g} 780
Typical Density:	0.1264 lb/in ³
Max. Service Temperature:	2,000°F (≈1093°C)
Porosity:	<10%
Carney Flow Rate:	15 seconds
Bulk Density:	1.9 g/cc
Powder Coverage:	0.021 lb/ ft ² @ 0.001"
Melting Point:	3340°F (≈1838°C)

Nominal Composition:

Aluminum dioxide, Titanium dioxide

PROCEDURE FOR USE

Coatings of Eutectic 25030 should be rough ground with 120 grit silicon carbide or 150 grit diamond wheels. Finish grind using a 400 grit diamond wheel.

Recommended Parameters - TeroDyn® 2000 System

Oxy-Acetylene

Nozzle:	RL 210 or RL 210-W
RotoJet:	RPA 3 @ 40psi air
Module Adaptor:	Aqua
Oxygen:	50 psi / 35 flow
Acetylene:	12 psi / 75 flow
T-Valve Setting:	6 clicks
Spray Rate:	3 lb/hr
Deposit Efficiency:	85%
Spray Distance:	4 to 6 inches

Oxy-Propylene/Propane

Nozzle:	RL 210M
RotoJet:	RPA 3 @ 25psi air
Module Adaptor:	Aqua
Oxygen:	80 psi / 50 flow
Propylene:	30 psi / 56 flow
T-Valve Setting:	7 clicks
Spray Rate:	3 - 4 lb/hr
Deposit Efficiency:	85%
Spray Distance:	5 to 6 inches

TYPICAL APPLICATIONS

Recommended for volute pump casings, applications with electrolytic corrosion and pump seal areas (especially when corrosion is present).

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 T5S-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.

