



Atomized Martensitic  
Stainless Steel Alloy Powder

# **Eutectic®**

## **29012**



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

# Eutectic® 29012

Eutectic 29012 is a water atomized martensitic stainless steel alloy powder designed for use with the TeroDyn® 2000 or 3000 Systems .

It is a two-step “Cold Process” powder which must be used in conjunction with a bond coat powder such 50000 or 21021 or 21031. Precise control of particle size and chemistry ensure that coatings will offer excellent resistance to abrasive wear and wear due to mechanical shock.

## TECHNICAL DATA

Coating Properties	
Typical Macro-Hardness:	Rockwell C Scale, 35
Typical Density:	7.0 g/cc
Thickness Limit:	0.100 inches
Max. Service Temperature:	1000°F (538°C)
Powder Properties	
Hall Flow Rate:	29 seconds
Bulk Density:	2.7 g/cc
Powder Coverage:	0.040 lbs/ft <sup>2</sup> @ 0.001”

## PROCEDURE FOR USE

### Grind Finish Only

**(Do Not use coolant unless coating is sealed)**

Wheel Specification: 11 C 80 F 13 V Pmf (for 16” wheel)  
Wheel Speed: 5000 - 6000 RPM

	In-Feed	Cross Feed
Roughing	Generally less than 0.005”	75% of the wheel width per revolution of workpiece.
Finishing	Should never exceed 0.001” to 0.002 inches	12.5% of the wheel width per revolution of workpiece.

### Recommended Parameters

#### TD 2000

Nozzle:	RL 200
Module Adaptor:	Yellow/Red
Oxygen:	50 psi / 35 flow (FM-1 flowmeter)
Acetylene:	12 psi / 75 flow (FM-1 flowmeter)
T-Valve Setting:	18 clicks
Spray Rate:	16.0 lb/hr
Spray Distance:	7 to 8 inches

#### TD 3000

Nozzle:	RL 210W (or 3310)
Oxygen:	50 psi / 38 flow
Acetylene:	12 psi / 60 flow
Carrier Gas:	Nitrogen @ 55 psi / 37 flow
Terometer:	125
Spray Rate:	20 lb/hr
Spray Distance:	8 to 12 inches
Air Vibrator:	20 psi

## TYPICAL APPLICATIONS

- Pistons
- Pump Parts
- Cylinder Liners
- Bell Housings
- Wear Rings
- Rolls

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.



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