



Atomized Austenitic  
Stainless Steel Alloy Powder

# Eutectic 19300



- Two-step “Cold Process” powder
- Excellent resistance to atmospheric corrosion
- Precise particle sizing ensures coating consistency
- Good machinability

# Eutectic 19300

Eutectic 19300 is a water atomized austenitic alloy powder designed for use with the TeroDyn® System 2000. It is a Two-Step "Cold Process" powder which must be used in conjunction with a bond coat powder such as UltraBond 50000 or ProXon 21031. Controlled composition is based on 316 stainless steel. Precise control of particle size and chemistry ensure that coatings will offer excellent resistance to atmospheric corrosion, a low coefficient of friction and good machinability.

## TECHNICAL DATA

Typical Values	
Typical Macrohardness:	90 HRB
Coating Density:	7.0 g/cc
Thickness Limit:	0.075 inch
Max. Service Temperature:	1000°F (538°C)
Hall Flow Rate:	30 seconds
Bulk Density:	2.7 g/cc
Powder Coverage:	0.042 lb/ft² @ 0.001"

### Corrosion Resistance:

For immersion service a coating sealer is recommended; please contact Technical Services to discuss your application

## PROCEDURE FOR USE:

### Single Point Turning - DO NOT use coolant unless coating is sealed

Tool: Carbide, ISO K01  
Rake Angle: -5°  
Turning Speed: 100 SFPM  
Cross Feed: 0.002-0.007 inch/rev  
In Feed: Roughing: 0.01-0.04 inch  
Finishing: 0.002-0.005 inch

### Grinding - 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  
Cross Feed: Roughing: 75% of the wheel width per revolution of work piece  
Finishing: 12.5% of the wheel width per revolution of workpiece.

In Feed Roughing: Generally less than 0.005"; operator experience should guide this operation

Finishing: Should never exceed 0.001 to 0.002 inch.

Coolant: Coating should be sealed so that coolant can be used

### Coating & Spray 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  
Coating Rate: 15 lb/hr  
Spray Distance: 5 to 7 inches

## TYPICAL APPLICATIONS

- Valves
- Shafts
- Armatures
- Packing glands
- Pistons
- Rolls
- Sleeves
- Seal areas
- Chemical process parts
- Journals
- End bells

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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