Atomized Martensitic Stainless Steel Alloy Powder

Eutectic® 29012

Coating

• Two-step “Cold Process” powder
• Excellent resistance to abrasive wear and mechanical shock
• Precise particle sizing ensures coating consistancy
• Suitable for metal-to-metal wear applications
DESCRIPTION:
Eutectic 29012 is a water atomized martensitic stainless steel alloy powder designed for use with the TeroDyn® Systems 2000 or 3000 and the RotoTec® torches. 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 inch
Max. service temperature: 1,000°F (538°C)

Powder Properties:
Hall flow rate: 29 seconds
Bulk density: 2.7 g/cc
Powder coverage: 0.040 lbs/ft² @ 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
Cross Feed
Roughing: 75% of the wheel width per revolution of work piece.
Finishing: 12.5% of the wheel width per revolution of work piece.
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.

TYPICAL APPLICATIONS:
• Pistons
• Bell housings
• Pump parts
• Wear rings
• Cylinder liners
• Rolls

RECOMMENDED COATING AND SPRAY PARAMETERS:

<table>
<thead>
<tr>
<th>TD 2000</th>
<th>TD 3000</th>
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<tbody>
<tr>
<td>Nozzle</td>
<td>Nozzle</td>
</tr>
<tr>
<td>Module Adaptor</td>
<td>RL 210W (or 3310)</td>
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<tr>
<td>Oxygen</td>
<td>Oxygen</td>
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<tr>
<td>Acetylene</td>
<td>Acetylene</td>
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<tr>
<td>T-Valve Setting</td>
<td>T-Valve Setting</td>
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<tr>
<td>Coating Rate</td>
<td>Carrier Gas</td>
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<tr>
<td>Spray Distance</td>
<td>Terometer</td>
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<tr>
<td>16.0 lbs/hr</td>
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<tr>
<td>7-8 inches</td>
<td>Coating Rate</td>
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<td>20 lbs/hr</td>
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<td>8-12 inches</td>
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<tr>
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<td>Air Vibrator</td>
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<tr>
<td></td>
<td>20 psi</td>
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