Vecalloy B Amorphous Alloy

Arc Spray Wire

DESCRIPTION:

Vecalloy B is a cored wire specifically designed for arc spray systems. It produces an amorphous, hard, abrasive and corrosion resistant coating, with a service environment up to 1700° F. The inclusion of 2.0% aluminum in the formulation results in extremely high bond strength and particle to particle adhesion. High chrome like finishes can be obtained by typical grinding and lapping techniques. Vecalloy B can be used in a wide variety of high wear applications, anti-skid surfacing applications and corrosive environments.

TYPICAL DEPOSIT CHARACTERISTICS:

- Typical Hardness: 985 Vickers
- Bond Strength: 10,000 psi
- Deposit Rate: 10 lbs/hr/100A
- Deposit Efficiency: 80%
- Wire Coverage: 0.8 oz/sq.ft/mil
- Surface Finish: Grind**
- Corrosion Resistance: Excellent

**Grind using aluminum Oxide

SURFACE PREPARATION:

Surface should be clean, white metal, with no oxides (rust), dirt, grease, or oil on the surface to be coated. It is best not to handle surfaces after cleaning. Recommended method of preparation is to grit blast with 18-24 mesh aluminum oxide.

APPLICATIONS:

- Boiler Tubes & Tube Shields
- Yankee Dryer Rolls
- Anti-Skid
- Fan Blades
- Drill Collars
- Hydraulic Shafts

CHEMICAL COMPOSITION (%):

<table>
<thead>
<tr>
<th></th>
<th>Cr</th>
<th>Nb</th>
<th>B</th>
<th>Ni</th>
<th>Si</th>
<th>Mn</th>
<th>Al</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.2</td>
<td>6.0</td>
<td>4.2</td>
<td>5.5</td>
<td>1.2</td>
<td>1.3</td>
<td>2.0</td>
<td>Balance</td>
</tr>
</tbody>
</table>

RECOMMENDED SPRAY PARAMETERS:

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Air Pressure</th>
<th>Voltage</th>
<th>Amperage</th>
<th>Standoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16” (1.6mm)</td>
<td>50 - 60 psi</td>
<td>29-32</td>
<td>150 - 250</td>
<td>4 – 8 in (10 - 20cm)</td>
</tr>
</tbody>
</table>

Parameters are typical and may vary depending on equipment used. Contact your equipment manufacturer for optimum spray parameters.

STANDARD SIZES & PACKAGING:

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Packaging</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16 (1.6mm)</td>
<td>25# LLWS</td>
<td>VECB062LWS00</td>
</tr>
</tbody>
</table>

The properties listed are typical and not to be construed as guaranteed values. Actual properties may vary depending on customer operating conditions. Polymet makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, except as expressly stated in Polymet’s terms and conditions.