Thermal Spray Cored Wire Products: Metco 8235

1 Introduction
Metco™ 8235 is a cored wire especially designed to produce coatings using the electric arc wire spray process. Coatings of Metco 8235 exhibit moderate surface hardness and are well-bonded to the substrate. Metco 8235 can be applied with relatively high deposition efficiencies.

The roughness of the coatings can be varied in a unusually wide range depending on the chosen spray parameters, including very rough surface profiles for non-slip / anti-skid applications. Nevertheless, smooth surface profiles can also be obtained that are readily machined for dimension and finish.

1.1 Typical Uses and Applications
Metco 8235 are typically used for applications such as:
- Anti-skid / anti-slip surfaces for walkways, platforms and stairs
- Traction rollers
- Bond coats
- Part restoration / build-up
2 Material Information

2.1 Chemical Composition

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight Percent (nominal)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fe</td>
<td>Al</td>
</tr>
<tr>
<td>Metco 8235</td>
<td>Bal.</td>
<td>5.5</td>
</tr>
</tbody>
</table>

2.2 Morphology and Available Wire Sizes

<table>
<thead>
<tr>
<th>Product</th>
<th>Morphology</th>
<th>Recommended Spray Process</th>
<th>Available Wire Diameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metco 8235</td>
<td>Composite</td>
<td>Electric Arc Wire Spray</td>
<td>1.6 mm (14 ga)</td>
</tr>
</tbody>
</table>

2.3 Key Selection Criteria

- Choose Metco 8235 when an electric arc wire sprayed coating should exhibit:
  - Excellent, rough surface for anti-skid coatings
  - High bond strength
  - High deposition efficiency
  - Hardness appropriate for the application

2.4 Related Products

- Sprasteel™ wires are recommended for anti-skid surfaces with higher wear resistance than Metco 8235.
- Metco 42C, Metco 41C, Amdry™ 959, Metco™ 450NS are thermal spray powders that can produce anti-skid surfaces using the atmospheric plasma spray or combustion powder Thermospray™ processes. It is recommended that these materials and an appropriate spray parameter are chosen in accordance with the the application and environment where the coating will be used.

3 Coating Information

3.1 Coating Parameters

Please contact your Oerlikon Metco Account Representative for parameter availability. For specific coating application requirements, the services of Oerlikon Metco’s Coating Solution Centers are available.

4 Commercial Information

4.1 Ordering Information and Availability

<table>
<thead>
<tr>
<th>Product</th>
<th>Order No.</th>
<th>Wire Diameter</th>
<th>Package Size</th>
<th>Package Type</th>
<th>Availability</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metco 8235</td>
<td>1059839</td>
<td>1.6 mm (14 ga)</td>
<td>25 lb (approx. 11.3 kg)</td>
<td>Dorn Spool</td>
<td>Special Order</td>
<td>Global</td>
</tr>
</tbody>
</table>

4.2 Handling Recommendations

Store in the original container in a dry location.

4.3 Safety Recommendations

See SDS 50-1068 (Safety Data Sheet) for the localized for the country where the material will be used. SDS are available from the Oerlikon web site at www.oerlikon.com/metco (Resources – Safety Data Sheets).