OVERVIEW

CT5100-1 is one of a number of coatings referred to as MCrAlY’s where “M” is typically Co, Ni, Fe, or a combination thereof. CT5100-1 is an alloy of Nickel, Chrome, Aluminum, and Yttrium “NiCrAlY” and is applied by the Plasma spray process. At elevated temperatures this coating forms a tenacious oxide layer that serves to protect the underlying substrate from oxidation and corrosion damage.

TYPICAL PROPERTIES

<table>
<thead>
<tr>
<th>Nominal Composition:</th>
<th>67% Ni – 22% Cr – 10% Al – 1% Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Appearance:</td>
<td>Dull Grey</td>
</tr>
<tr>
<td>Typical Thickness:</td>
<td>.005” - .015”</td>
</tr>
<tr>
<td>Coating Density:</td>
<td>&gt;73Rb</td>
</tr>
<tr>
<td>Tensile Strength:</td>
<td>&gt;10,000 psi avg.</td>
</tr>
<tr>
<td>As-sprayed Surface Roughness:</td>
<td>350-500 Ra</td>
</tr>
<tr>
<td>Typical Max Operating Temp:</td>
<td>1900°F</td>
</tr>
</tbody>
</table>

FOR THE FOLLOWING APPLICATIONS

CT5100-1 is typically used as a bond coating in thermal barrier applications. The coating serves two purposes in a thermal barrier system:

1) In the as sprayed condition it provides a suitable surface for application various ceramic top coats.

2) It serves as an effective barrier against oxidation and corrosion of the underlying substrate material.

This coating is most commonly used on gas turbine engine hot section components (liners, caps, venturis, transition pieces, vanes, and blades).

FINISHING

CT5100 is typically used as sprayed without further finishing.

SPECIFICATIONS

CT-5100-1 meets the following specifications:

<table>
<thead>
<tr>
<th>GEAE:</th>
<th>B50TF192CLA</th>
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</thead>
<tbody>
<tr>
<td>GE Power Systems:</td>
<td>B50A892</td>
</tr>
<tr>
<td>Honeywell:</td>
<td>EMS 52432</td>
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</tbody>
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