INTRODUCTION

The C-335 powder consists of alumina and 13% titania, is designed to produce dense, wear resistant ceramic coatings that can be ground to excellent finishes. Coatings of these materials generally have higher toughness, but lower hardness, dielectric strength and relatively less resistance to chemical attack than coatings of alumina 3% titania or pure alumina. Coatings can be used at operating temperatures up to 540°C.

APPLICATION INFORMATION

Coatings of C-335 are recommended for resistance to wear by abrasive grains, hard surfaces, fiber and thread, fretting, cavitation and particle erosion. C-335 has proven to be an excellent material for coating printing industry ink transfer rolls. These coatings provide wear resistance and improved printing definition. C-335 coatings are also useful in the textile industry on any machine element application which comes in contact with fibers and threads. These coatings can also be considered for pump sleeves and hydraulic parts.

- Plungers
- Hydraulic Parts
- Textile components
- Components for the chemical industry
- Electrical insulation and dielectric applications
- Mechanical seal applications.
COATING INFORMATION & PROPERTIES

<table>
<thead>
<tr>
<th>Process</th>
<th>APS</th>
<th>HVOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marco Hardness</td>
<td></td>
<td>R_c700</td>
</tr>
<tr>
<td>Mirco Hardness</td>
<td></td>
<td>1000 HV_{0.3}</td>
</tr>
<tr>
<td>Coverage</td>
<td>Kg/m²/1mm</td>
<td>0.5-0.8</td>
</tr>
<tr>
<td>Typical Porosity</td>
<td>Vol. %</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>MPa</td>
<td></td>
</tr>
<tr>
<td>Typical Deposit Efficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>3.6</td>
</tr>
<tr>
<td>Service Temp.</td>
<td>°C</td>
<td>&lt;540</td>
</tr>
</tbody>
</table>

Recommended Finishing
- Surface Finish – as sprayed: Ra, µm
- Surface Finish – machined: Ra, µ

All coatings information is for indication only. Actual results may vary from data listed above.

SAFETY RECOMMENDATIONS

The Material Safety Data Sheet (MSDS) for C-335 is available at FST. Please pay extra attention to avoid inhalation or contact with skin or eyes. We advise wearing protective clothing, safety eye glasses, ear protection, and a respirator. The spray area must always be equipped with suitable exhaust and dust collection systems to avoid any inhalation.

STORED REQUIREMENTS

Store C-335 dry and always close the container to avoid any moisture pickup by the material which could have an adverse effect on the flow-ability of the material. Flow-ability may be maintained by storing the powder in a warm low humidity cabinet or restored by drying the powder by heating the container (seal removed and lid loosened) at 85°C (185°F) for 1 hour prior to use.

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