Thermal Spraying with Molybdenum Powders

Innovation is the key to H.C. Starck’s success in developing the highest quality molybdenum powders for thermal spray applications. Our molybdenum thermal spray powders are spherical, flowable and designed to improve and restore surfaces from large area coatings to small metal components.

H.C. Starck’s Thermal Spray Powder Advantage

H.C. Starck’s molybdenum thermal spray powders extend the life of products by repairing worn and damaged surfaces, and protecting against the detrimental effects of erosion, wear and corrosion. Our thermal spraying powders involve the disposition of powders covering a substrate forming an even coating of contiguous layers.

Diverse Spraying Processes

- Plasma
- Flame
- Detonation
- High velocity air fuel (HVAF)
- High velocity oxy-fuel coating spraying (HVOF)

Spray Dried Powder

Spherical and flowable
Applications

From popular transportation modes like automobiles, trains, aircraft and boats to chemical plants, food manufacturing and packaging, mining, earthmoving equipment, power generation and many applications that are subject to usage and environmental effects.

Molybdenum Thermal Spray Powders

Pure molybdenum powder for various size specifications.

- Coarse Grade -170+325 mesh
- PWA 1313 -200+325
- Finest – PWA 1338
- Fine Grade -325 mesh

We can also alloy with carbon to produce any level of C content up to 6% (pure Mo₂C).

Additional customized alloy powder products are available upon request.

Packaging

The molybdenum powder is shipped in non-returnable polyethylene-lined 20 liter (5 gallon) plastic pails or 60 liter (15 gallon) steel drums. Special packaging inquiries welcome.

Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mo (excluding gases)</td>
<td>min. 99.8%</td>
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</table>

Physical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
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<tbody>
<tr>
<td>Apparent Density</td>
<td>30 g/cubic inch minimum</td>
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<tr>
<td>Hall flow</td>
<td>35 s/50 g maximum</td>
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