Molykote®

P 37

Ultrapure High Temperature Paste

Ultrapure Antiseize Performance for High Temperature Applications

Molykote® P 37 Ultrapure High Temperature Paste is composed of high-temperature-stable solid lubricants (zirconium dioxide and others) in a mixture of ultrapure, sulfur-free oils.

Seize Protection
Alloys containing chromium, nickel and molybdenum have a relatively thin oxide layer that can be squeezed out when the bolts or nuts are tightened, resulting in welds on the flanks of the threads. Molykote P 37 Ultrapure High Temperature Paste has been specially designed to provide lubrication and protection for these metals.

Corrosion Resistance
Metal alloys containing nickel and chromium can experience stress cracking and corrosion when exposed to lubricants containing sulfur and halogens like chlorine, fluorine, bromine and iodine. Sulfur, for example, can combine with nickel to form crystals of nickel sulfide, leading to stress fractures in the material.

Features
- High temperature; solid lubricants stable up to approximately 2550°F (1400°C)
- Excellent lubricity
- Coefficient of friction within the range of oiled bolts
- Very high load carrying capacity
- Contains less than 250 ppm of sulfur, and less than 200 ppm total chlorine, fluorine, bromine and iodine
- Purity certificate available
- Non-carcinogenic
- Helps prevent seizure and damage of threaded components during assembly and service
- Enables and improves disassembly of threaded connections after high temperature exposure
- Contains no halogen- or sulfur-based compounds, MoS₂, heavy metals or metals that embrittle alloys

Applications
Molykote P 37 Ultrapure High Temperature Paste is intended for application on threaded applications of all kinds, in particular those consisting of ultrapure alloys with high chromium, nickel or molybdenum content. Molykote P 37 Ultrapure High Temperature Paste is appropriate for mounting bolts and fasteners on turbine shells and steam inlet valves.
Typical Properties
These values are not intended for use in preparing specifications.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Gray paste</td>
</tr>
<tr>
<td>Specific Gravity, g/mL</td>
<td>1.21</td>
</tr>
<tr>
<td>ASTM D 217 Penetration, unworked</td>
<td>280-310</td>
</tr>
<tr>
<td>Friction Coefficient</td>
<td>0.10</td>
</tr>
<tr>
<td>Temperature Range, approximate, °F (°C)</td>
<td>-22 to 255 (-30 to 1400)</td>
</tr>
<tr>
<td>CTM 0833 Failure Load, N</td>
<td>15,000-20,000</td>
</tr>
<tr>
<td>Break Away Torque, M12 x 1.75 bolts, 21 Cr Mo Ni V 57, Nm</td>
<td>1.7709</td>
</tr>
<tr>
<td>After 1004°F (540°C) for 4 weeks, Nm</td>
<td>121</td>
</tr>
<tr>
<td>4 Ball Wear at 4,000 N Load, Nm</td>
<td>0.75</td>
</tr>
<tr>
<td>ASTM D 2596 4-Ball Weld, N</td>
<td>4000</td>
</tr>
<tr>
<td>Total Halogen (Chlorine, Fluorine, Bromine and Iodine) Content, ppm</td>
<td>&lt;200</td>
</tr>
<tr>
<td>Sulfur Content, ppm</td>
<td>&lt;250</td>
</tr>
</tbody>
</table>

CTMs (Corporate Test Methods) correspond to ASTM standard tests in most instances. Copies of CTMs are available upon request.

Specification Writers: Please obtain a copy of the Dow Corning Sales Specification for this product and use it as a basis for your specifications. It may be obtained from any Dow Corning Sales Office, or from Dow Corning Customer Service in Midland, MI. Call (989) 496-6000.

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Molykote P 37 Ultrapure High Temperature Paste is available from:

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