

## 330-Mcote-296 UHV grease

### Description

330-Mcote-296 is smooth, off-white coloured perfluoropolyether grease, in NLGI grade 2. The product uses a proprietary base fluid thickened with a special tetrafluoroethylene gelling agent with an average particle size of <0.8 microns. The product is specially formulated to provide wear protection in most load and speed conditions under high or extreme vacuum conditions. It offers excellent lubricity, thermal stability, low volatility, good shear stability, low acute toxicity and contain no sodium or other alkali metal containing ingredients. The grease is non-flammable and chemically inert.

### Temperature Range

-50°C to 204°C, recommended for vacuum 180°C max.

### Uses

330-Mcote-296 is designed for use in extreme high vacuum critical particle count conditions which require anti-wear lubrication. Typical applications include robotics used for semi-conductor production and other electronic applications. 330-Mcote-296 can be used to lubricate bearings, gyros, gears, and also as an assembly lubricant for O-rings and elastomers.

### Limitations

330-Mcote-296 is compatible with most commonly utilized metals, plastics and elastomers. This product may be adversely affected by Lewis Acids such as aluminium chloride, at elevated temperatures. Newly exposed rubbing surfaces of aluminium, titanium or magnesium alloys under certain conditions may react with 330-Mcote-296. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to grease application to insure proper lubrication.

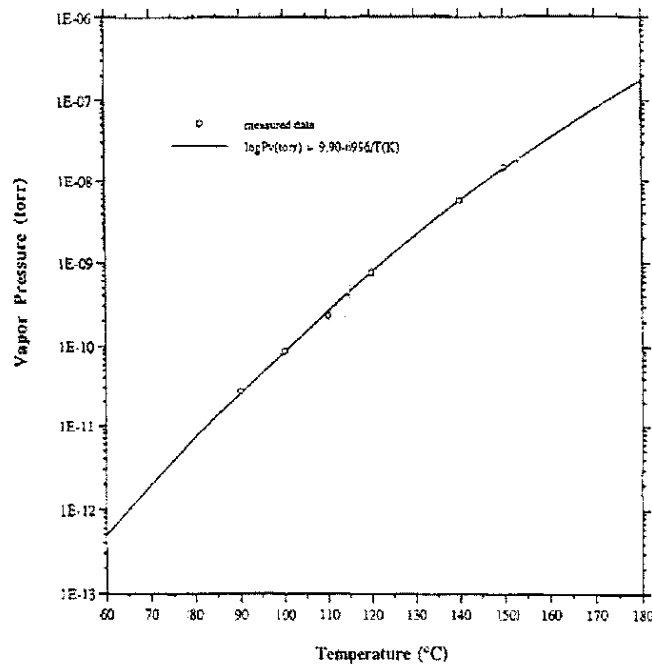
### Packaging

330-Mcote-296 is available in 10 gram syringes.



## Typical Properties

Test Methods	Description	Result
D 1403	Penetration 25°C, mm <sup>-1</sup> Unworked / worked 60 strokes	272 / 272
FTM 321	Oil separation 22 hours, 204°C, % wt	6,4
D 2266	4-Ball Wear, AWS 40kg, 1h, 1200rpm, 75°C, mm 60kg, 1h, 600rpm, 75°C, Nitrogen, mm	0,49 0,67
D 2595	Evaporative Weight Loss 22h at 204°C, % wt	0,14
D 4048	Copper Strip Corrosion, 24h at 100°C	1b
D 2265	Dropping Point °C	256
Outgassing Test	Total Mall Loss 48h at 150°C, ~10 <sup>-9</sup> torr, % wt	0.073
ASTM E-1559	Extrapolated Vapor Pressure, torr Derived from ASTM vapor pressure versus temperature plot. This result for the hole grease not the base oil. Samples preconditioned at 150°C for 48h 60°C 100°C 150°C	6 x 10 <sup>-12</sup> 3.5 x 10 <sup>-10</sup> 9.4 x 10 <sup>-7</sup>
D 1478	Low Temperature Torque, Nm @ -73°C, starting / running	0.14 / 0.05
	Grams per ml	2,0



Vapour pressure versus Temperature