

# MOLYKOTE® HP-500 Grease

Fully fluorinated grease that provides extraordinary performance under extreme conditions

## Features & benefits

- Compatible with most plastics
- Excellent stability at high temperatures
- Superior resistance to chemicals and solvents
- Minimal deterioration due to oxidation; appropriate for long-term lubrication
- Low vapor pressure (base oil)

## Composition

- Perfluoropolyether
- Fluorinated polymer

## Applications

MOLYKOTE® HP-500 Grease can be used broadly under harsh conditions, such as high temperatures, corrosive, solvents, liquefied natural gasses, high vacuum, etc. Can be used in cleanroom equipment and semiconductor manufacturing equipment where the vaporization of the lubricating material is undesirable.

## Description

MOLYKOTE® HP-500 Grease is a perfluoropolyether (PFPE)-based grease thickened with polytetrafluoroethylene (PTFE); it is useful for reducing wear in many plastic-on-plastic applications.

## How to use

Clean point of application. As is usual with lubricating greases, apply or fill by means of a brush, spatula, or automatic lubrication device.

## Handling precautions

Although MOLYKOTE® HP-500 Grease is highly chemically stable, at temperatures in excess of 250°C, the material will gradually decompose and release toxic gases; be sure to have adequate ventilation if you expect the material to decompose. Do not smoke cigarettes that are contaminated with this product. Be sure to wash hands thoroughly after use.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEETS AND CONTAINER

## Typical properties

Specification writers: These values are not intended for use in preparing specifications. Please contact your local MOLYKOTE® sales representative prior to writing specifications on this product.

Standard <sup>(1)</sup>	Test	Unit	Result
	Appearance		White
JIS K 2220	Penetration (worked 60 times)	mm/10	280
	NLGI class		2
	Service temperature range	°C	-20 to 200
	Density	g/cm <sup>3</sup>	2.0
MIL-S-8660	Bleed (200°C, 24 hours)	%	0-4
MIL-S-8660	Evaporation (200°C, 24 hours)	%	0-1
MIL-S-8660	Evaporation (200°C, 1,000 hours)	%	0.8
ASTM D2596	Four ball weld load (1,500 rpm/1 minute)	N	3,440
ASTM D2266	Four ball wear scar (1,200 rpm, 392 N, 1 hour)	mm	0.9
JIS K 2220	Low-temperature torque test (-20°C)		
	Starting torque	Ncm	34
	Running torque	Ncm	18
JIS K 2220	Low-temperature torque test (-40°C)		
	Starting torque	Ncm	Not measurable
	Running torque	Ncm	Not measurable
	Base oil vapor pressure 20°C	Pa	1.33x10 <sup>-6</sup>

<sup>(1)</sup>JIS: Japanese Industrial Standard. MIL: Military Specification and Standards. ASTM: American Society for Testing and Materials.

LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

### **Usable life and storage**

When stored, unopened, in a cool, dark place, this product has a usable life of 36 months from the date of production.

### **Packaging**

This product is available in 100 g and 500 g plastic cans.

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