



Orelube®

**technical
information**

NEPTUNE 7

HEAVY DUTY MOLY EP ALUMINUM COMPLEX GREASE

Description

Orelube Neptune 7 is manufactured using a blend of highly-refined, hydrotreated, high VI paraffin base oils thickened with an aluminum complex soap gel produced by a state-of-the-art manufacturing and homogenizing process. A *synergistic combination of chemical additives* provide *superior extreme pressure and antiwear properties* to withstand high loads, absorb shock loads and reduce friction and wear.

Neptune 7 is fortified with *Molybdenum disulfide*, a lubricant that forms a thin protective layer of solid particles on metal surfaces, filling in the microscopic peaks and valleys (asperities) that are always present, no matter how highly polished or machined the surface is. *Moly* will separate yet lubricate metal surfaces under pressures beyond the point of plastic deformation of steel. *Moly* lubricates when oil films are unable to survive!

Because *Molybdenum disulfide* lubricating particles have a laminar or layer-like structure, they shear easily. Under boundary lubrication, or surface-to-surface contact, the stacked layers of solid lubricant shear instead of the substrate. This shearing action allows heavier loads to be carried without cold welding of asperities.

Neptune 7 is *waterproof!* It repels water acting as a seal for bearings exposed to wet conditions. A good measure of its waterproof ability is the Water Washout Test, ASTM D-1264. When tested using this method, **Neptune 7** exhibits less than 1.0% weight loss.

Aluminum complex soap greases exhibit superior mechanical stability -- their small fibers contribute to their unusually stable structure. **Neptune 7** does not soften and run-out under prolonged and/or severe working conditions.

In some applications at 400 F, if relubricated weekly, **Neptune 7** enables trouble-free lubrication, week-after-week. Naturally, as temperatures drop, the relubrication interval is extended. In applications at 300 F, the relubrication interval can be monthly.

Benefits

- Excellent low temperature pumpability -- easily-handled in centralized lubrication systems
- Oxidation stability is increased using antioxidants for long-lasting lubrication
- *Reversible* - can be exposed to temperatures past its dropping point for short periods of time and upon cooling return to its original grease structure
- High dropping point
- Not affected by mild acid, alkali or salt environments

The Orelube Corporation
201 East Bethpage Road, Plainview, NY 11803
516-249-6500 • 800-645-9124 • Fax 516-249-6566



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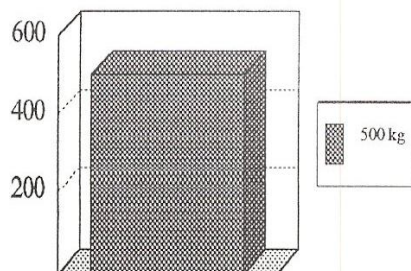
Applications

- Plain (journal, sleeve, guide) bearings
- Antifriction or rolling contact (ball, roller, needle) bearings
- Electric motors, pumps, grease-lubricated gears and couplings, cams, slides
- Machine tools, rolling mills, pulp and paper mills, steel mills, chemical plants
- Mining, construction and off-the-road equipment, farm machinery, injection molding & extrusion machinery, asphalt processing, automotive & truck wheel bearings and chassis
- OEM's

Typical Properties

NLGI Grade	2
Color	Black
Operating Temperature Range	+10 to 400 F
Penetration, ASTM D-217	
Worked, 60 strokes	270
Worked, 10,000 strokes	271
Dropping Point, ASTM D-2265, F	550
Base Oil Viscosity, ASTM D-445	
cSt @ 40 C	194.2
cSt @ 100 C	17.4
Water Washout, ASTM D-1264	
% wt. loss @ 100 F	0.1
% wt. loss @ 175 F	0.9
Rust Test, ASTM D-1743	Pass
Copper Corrosion, ASTM D-130	
24 hrs @ 100 C	1a
Oxidation Stability, ASTM D-942	
100 hrs @ 210 F, psi loss	2
500 hrs @ 210 F, psi loss	9
Timken EP Test, ASTM D-2509	
OK Load, lbs	65
4-Ball EP, ASTM D-2596	
Weld load, kg	500
Load wear index, kg	59
4-Ball Wear, ASTM D-2266	
1200 rpm, 40 kg, 167 F, 1 hr	
scar diameter, mm	0.48

Available in NLGI
Grades 000, 00, 0, 1 and 3



Load Carrying Capacity
4-Ball EP Test

