



# NoSheen EAL Gear Lubricants

## *'No Sheen' Biodegradable Ultra High Performance Gear Lubricants*

### DESCRIPTION:

**NoSheen EAL Gear Lubricants** are fully formulated, high performance gear lubricants for enclosed industrial gears. **NoSheen EAL Gear Lubricants** are formulated to provide excellent lubrication, stability and extended service life while eliminating many of the problems commonly encountered with petroleum gear lubricants. These gear lubricants are designed for demanding industrial applications, with a special emphasis on applications where spills into the water require an environmentally appropriate lubricant. They are anhydrous, do not hydrolyze in the presence of water and do not break down to form sludge or varnish. **NoSheen EAL Gear Lubricants** are ideal for use in applications such as dockside and marine mobile equipment, forestry, coal handling, amusement, cooling towers, wind turbines and industrial operations. The EP additive is not suitable for use with worm gears.

### BENEFITS:

- Heavier than water - They do not form a sheen when exposed to water
- Water soluble – no bioaccumulation
- Elimination of sludge and carbonaceous residues common with mineral oils
- Readily Biodegradable
- Reduced energy consumption
- Extended service life
- Reduced lubricant and maintenance costs
- Reduced wear rates
- High viscosity index:
  - Eliminates seasonal oil changeovers
  - Facilitates cold-weather startups
  - Eliminates motor overloading during startup

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## AGMA VISCOSITY GRADES:

Due to the high viscosity index exhibited by **NoSheen EAL Gear Lubricants** are not classified by one AGMA viscosity rating and will effectively span 2 or 3 AGMA numbers over the operating range of most gear boxes. By knowing either the viscosity required at the operating temperature or the AGMA rating of the current lubricant, an appropriately performing **NoSheen EAL Gear Lubricant** can easily be chosen.

## SELECTION GUIDE FOR NEPTUNE® LUBRICANTS:

	<b>AGMA Grades Usually Replaced</b>
N100	2-4
N150	3-6
N220	4-7
N320	5-7
N460	6-8

## MONITORING NEPTUNE® GEAR LUBRICANTS:

Although **NoSheen EAL Gear Lubricants** will show a greatly extended service life under most conditions, one should not neglect to perform periodic maintenance and inspection. Periodic inspection of the lubricant will help insure continued trouble-free operations.

## CHANGEOVER PROCEDURE:

Installation of **NoSheen EAL Gear Lubricants** into gear boxes which previously contained petroleum oils should follow the flush procedure below:

1. Drain previous lubricant from the gear box.
2. Replace oil filters.
3. Fill the gear box with the **NoSheen EAL Gear Lubricant** to be used. Run under normal operating conditions for 24 hours. **NoSheen EAL Gear Lubricants** will generally clean varnish and sludge build-up formed from petroleum oils.
4. Thoroughly drain the **NoSheen EAL Gear Lubricant** from the box while warm.
5. Inspect the oil filters and replace as needed.
6. Fill the box with fresh **NoSheen EAL Gear Lubricant** and begin normal operation.
7. Inspect and change filters as required.

This procedure should be followed for best results. However, residual petroleum lubricants can usually be tolerated in the **NoSheen EAL Gear Lubricant**.

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

- ï Avoid contact with eyes.
- ï Wash thoroughly after handling.

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## PROPERTIES:

	<b>Test Method</b>	<b>N68</b>	<b>N100</b>	<b>N150</b>	<b>N220</b>	<b>N320</b>
Viscosity @ 40°C	ASTM D445	68 cSt	103 cSt	146 cSt	228 cSt	313 cSt
Viscosity @ 100°C	ASTM D445	13.9 cSt	21.6 cSt	30.0 cSt	45.6 cSt	61.1 cSt
Viscosity Index	ASTM D2270	214	238	247	257	265
Pour Point	ASTM D97	-42°C(-44°F)	-42°C(-43°F)	-41°C(-42°F)	-40°C(-40°F)	-39°C(-38°F)
Density @ 68 °F	ASTM D1298	8.68 lbs/gal	8.69 lbs/gal	8.73 lbs/gal	8.75 lbs/gal	8.77 lbs/gal
Density @ 20 °C	ASTMD4052	1.0372 g/cm <sup>3</sup>	1.0372 g/cm <sup>3</sup>	1.0379 g/cm <sup>3</sup>	1.0414 g/cm <sup>3</sup>	1.0418 g/cm <sup>3</sup>
Flash Point	ASTM D92	228°C(442°F)	228°C(442°F)	228°C(442°F)	228°C(442°F)	228°C(442°F)
Fire Point	ASTM D92	268°C(514°F)	268°C(514°F)	268°C(514°F)	268°C(514°F)	268°C(514°F)
Ash	ASTM D482	<0.01 %	<0.01 %	<0.01 %	<0.01 %	<0.01 %
Water content	ASTM E203	<0.25 %	<0.25 %	<0.25 %	<0.25 %	<0.25 %
Rust Prevention (24h)	ASTM D665A	Pass	Pass	Pass	Pass	Pass
Copper Strip Corrosion	ASTM D130	1a	1a	1a	1a	1a
Air Release @ 50°C	ASTM D3427		10 min			
EP Properties (Four-Ball Method)	ASTM D2783					
Weld Point		250 kgf	250 kgf	250 kgf	250 kgf	250 kgf
Load-Wear Index		65 kgf	65 kgf	65 kgf	65 kgf	65 kgf
OK Load (Timken Method) , min.	ASTM D2509	120 lb-f	120 lb-f	120 lb-f	120 lb-f	120 lb-f
FZG Gear Test	ASTM D5182					
Pass Load Stage			12	12	12	12

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material.