



## DURALIFE® PAO & POLYOL ESTER FULL SYNTHETIC WIND TURBINE GEAR OIL 320

**DURALIFE® PAO & POLYOL FULL SYNTHETIC WIND TURBINER GEAR OIL 320** is manufactured from Polyalphaolefin (PAO) and Polyol Ester base oils with specially selected additives to meet the highest requirements of wind turbine gear oil such as :

- High scuffing and micro pitting load-carrying capacity.
- Low friction behavior.
- No negative influence on wear behavior and life time of rolling bearings.
- High oxidation stability.
- Excellent extreme low temperature fluidity.
- High upper operating temperature.
- No residue formation.
- No negative influence on radial shaft seals.
- Extended oil drain intervals are highly desirable (three years or more)

### APPLICATIONS :

**DURALIFE® PAO & POLYOL FULL SYNTHETIC WIND TURBINER GEAR OIL 320** is recommended for the lubrication of heavily loaded enclosed gear drives and speed reducers driven by wind turbines, fractional horsepower motors and large high horsepower units in heavy duty industrial applications.

Meets the requirements of:

DIN 51517 Part 3 August 2011

ANSI/AGMA 9005 – E02EP

ANSI/AGMA/AWEA 6006-A03

ISO 12925-1 Type CKD

US Steel 224

David Brown S1.53.101 Type E

Flender Industrial Gear Revision 13

Cincinnati Machine P-74

### BENEFITS :

- Protects against micro pitting and scuffing of gear teeth and provides extended bearing life under extreme conditions.
- Outstanding anti-wear, extreme pressure and load carrying properties leading to savings in both maintenance time and costs.
- Extend gear life due to high load carrying and outstanding ability to keep gear surfaces free of deposits.
- Fully compatible with standard seal, paint and hose material.
- Outstanding friction reduction.
- Outstanding thermal and oxidation stability.
- Superior demulsibility as it separate from water easily.

### TYPICAL CHARACTERISTICS :

Test	Method	WT 320
API Gravity	ASTM D287	33.03
Specific Gravity @ 15.6°C (60°F)	ASTM D1298	0.860
Viscosity @ 40°C, cSt @ 100°C, cSt	ASTM D445	317.26
		33.66
Viscosity Index	ASTM D 2270	149
Flash Point, °C (°F)	ASTM D92	254(489)
Pour Point, °C (°F)	ASTM D97	-38(-36)
Water Content, %wt	ISO 3733	0.008
Copper Corrosion (3h at 100°C)	ASTM D 130/ISO 2160	1a
Rust Test	ASTM D 665 A&B	pass
FZG Gear Test , Fail stage, single (A/8.3/90 ) & double speed (A/16.6/90)	ISO 14635-1 / DIN 51354	>14

FZG Micropitting Test at 90°C	FVA No.54	>10
Foam Tendency/Stability, ml Sequence I	ASTM D 892/ISO6247	0/0
Sequence II		0/0
Sequence III		0/0
Air Release @ 75°C, minutes and seconds	IP 313	8'48"
Demulse @ 82°C, minutes and seconds	ASTM D 1401	17'52"
Dynamic Seal Test (NBR, FKM) 1000h @ 90°C	DIN 3761	pass
4-Ball EP Test, Load-wear index, kg	ASTM D 2783	54.10
Weld Point, kgD-2783		250
S-200 oxidation, (312 h at 95°C)	ASTM D2893	
Viscosity Increase, % <sub>SEP</sub> <sup>15</sup>		1.33
Precipitation Number, ml		0
Timken OK Load , lb	ASTM D 2782	95

*The above characteristics are average values based on recent production .Minor variations which do not affect product performance are to be expected in normal manufacture.*

**WARNING:**

Continuous contact with used oil has caused skin cancer in animal tests. Avoid prolonged contact. Thoroughly wash exposed areas with soap and water. Keep out of reach of children. Don't pollute. Conserve resources. Return used oil and bottle to collection centers.

Reference SDS Number 12112 database on our website at [www.amtecol.com](http://www.amtecol.com) OR scan the code for a direct link

