



# SYNFILM GT WIND GEAR 320

*SYNTHETIC WIND TURBINE GEAR BOX OIL*

## **BEYOND SYNTHETIC®**

Synfilm GT Wind Gear 320 is a synthetic gear oil specifically formulated to meet the challenging requirements of modern wind turbine gearboxes. Synfilm GT Wind Gear 320 has proven to allow extended safe drains of up to six years while providing unparalleled wear protection for both bearings and gears. The product has also shown to improve Turbine efficiency by reducing parasitic loss in the gear units.

Synfilm GT Wind Gear 320 is a long life, high film strength, energy efficient synthetic lubricant that significantly increases bearing life and equipment reliability. Synfilm GT Wind Gear 320 gains its performance advantages over competing mineral and synthetic oils through its superior blend of synthetic base oils plus Royal Purple's proprietary Synerlec additive technology.

## **SYNERLEC® ADDITIVE TECHNOLOGY MAKES THE DIFFERENCE!**

Synthetic oils enable Royal Purple to make superior lubricants, but it is Royal Purple's advanced Synerlec additive technology that gives its lubricants their amazing performance advantages. Synerlec additive technology truly is beyond synthetic.

Synerlec additive technology forms a tough, slippery, synthetic film on all metal surfaces. This proprietary film significantly improves lubrication: first, by increasing the oil film's thickness, and second, by increasing the oil film's toughness, both of which help to prevent metal-to-metal contact. It displaces moisture from metal surfaces and protects all metals against rust and corrosion. It also fortifies the oil against the detrimental effects of heat, which causes oil to oxidize.

## **PERFORMANCE ADVANTAGES**

### **High Film Strength**

Synfilm GT Wind Gear 320 protects bearings far beyond the ability of other compressor and pump oils, carrying up to 700 percent greater loads.

### **Rapidly Separates from Water**

Synfilm GT Wind Gear 320 rapidly and completely separates from water, which is easily drained from the bottom of the oil reservoir.

### **Saves Energy**

Synfilm GT Wind Gear 320 has an extremely low coefficient of friction that is proven to save energy over conventional oils. In rotating equipment these savings frequently exceed the total cost of the oil within several months, making what was once an oil expense a profit.

### **Extremely Clean**

Synfilm GT Wind Gear 320 is packaged in new poly containers and has a typical ISO 4406 Cleanliness Level of 14/13/11\*, which is verified by a laser particle counter.

### **Reduces Bearing Vibrations**

The tough oil film of Synfilm GT Wind Gear 320 coupled with its ability to micro-polish contacting bearing elements provides superior bearing lubrication.

### **Longer Oil Life**

Synfilm GT Wind Gear 320 has outstanding oxidation stability that greatly extends oil change intervals while keeping equipment clean.



**Excellent Corrosion Protection**

The tough oil film of Synfilm GT Wind Gear 320 forms an ionic bond on metal surfaces, which acts as a preservative oil during shutdown and provides instant lubrication upon startup.

**Synthetic Solvency**

The natural solvency of Synfilm GT Wind Gear 320 cleans up dirty equipment and keeps it clean.

**Compatible with Seals**

Synfilm GT Wind Gear 320 has excellent compatibility with most seals.

**Compatible with Other Oils**

Synfilm GT Wind Gear 320 can be mixed with mineral oils and most synthetic oils. (It is not compatible with silicone or glycol synthetics.)

**Environmentally Responsible**

Synfilm GT Wind Gear 320 components are TSCA listed and meet EPA, RCRA and OSHA requirements. Synfilm extends oil drain intervals, eliminates premature oil changes, decreases the amount of oil purchased and disposed of and conserves energy.

|                          |          | ISO Grade |
|--------------------------|----------|-----------|
| Typical Properties*      | Method   | 320       |
| Viscosity                | D-445    |           |
| cSt @ 40°C               |          | 320       |
| cSt @ 100°C              |          | 28.8      |
| Viscosity Index          | D-2270   | 122       |
| Flash Point, °F/°C       | D-92     | 455/229   |
| Pour Point, °F/°C        | D-6892   | -40/-40   |
| Copper Corrosion Test    | D-130    |           |
| 3 Hrs @ 100°C            |          | 1A        |
| 24 Hrs @ 100°C           |          | 1A        |
| Foam Test, Seq II        | D-892    | 6/0/2     |
| Demulsibility Test       | D-1401   |           |
| Mins @ 130°F             |          |           |
| Mins @ 180°F             |          |           |
| Cincinnati Millicron "A" | D-2070   | PASS      |
| ISO Cleanliness Level    | ISO 4406 | 14/13/11  |
| Density, lbs/gal         | D-4052   | 7.31      |

*\*Properties are typical and may vary.*