# ADVANCED VESTA WIND TURBINE OIL

## Product Description:

**United Advanced Vesta Wind Turbine Oil is a high performance wind turbine and industrial gear oil that based on polyalphaolefin and ester technology. It provides additional wear, clean gear and oxidation protection, and offers extended corrosion and micropitting performance. It is specifically developed for lubricating the heavily loaded gears and rolling-element bearings in gearboxes of new-generation wind turbines.**

United Advanced Vesta Wind Turbine Oil has outstanding oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. The advanced additive technology provides high load-carrying capacity for outstanding protection against scuffing and wear, as well as excellent protection against rust and corrosion. It is fully compatible with the seal materials used in these wind turbine gearboxes.

## Applications / Benefits:

- Clean-gear performance under conditions of high temperature and oxidation
- Excellent phosphorus retention, ensuring extended wear protection
- Consistently strong micropitting performance as specifed by Flender AG at 60°C and 90°C
- Exceeding the requirements of U.S. Steel 224, AGMA 9005-E02 and DIN 51517, Part 3
- Prevention of the formation of carbon deposits
- PAO/ester base stock for use in wind turbine
- Excellent seal compatibility

## Typical Characteristics:

| Test Description | Method | | | | |
|---|---|---|---|---|---|
| ISO Viscosity Grade | - | **220** | **320** | **460** | **680** |
| Specific Gravity @ 15 ºC | ASTM D 4052 | 0.871 | 0.860 | 0.876 | 0.889 |
| Flash Point, ºC | ASTM D 92 | 235 | 245 | 255 | 267 |
| Pour Point , ºC | ASTM D 97 | -42 | -39 | -39 | -33 |
| Kinematic Viscosity, cSt @ 40ºC | ASTM D 445 | 222 | 321 | 456 | 995 |
| cSt @ 100ºC | ASTM D 445 | 25.8 | 35.2 | 47.4 | 78.2 |
| Viscosity Index | ASTM D 2270 | 148 | 155 | 162 | 160 |
| Color | ASTM D 1500 | <2.5 | <2.5 | <2.5 | <2.5 |

## Specifications, Approvals & Recommendations:

- U.S. Steel 224
- AGMA 9005-E02
- DIN 51517 Part 3

Product Data Sheet