marine products

Futerra® HF 32

Equivalent product: Clarity Bio Elitesyn AW 32

Description

The Futerra® Hydraulic Fluid (HF) Series is the first of its kind. These renewable hydrocarbon-based environmentally acceptable lubricants (EALs) are designed to withstand extreme conditions and corrosion while operating in severe outdoor environments.

These lubricants are intended for severe service, extreme high temperature (250°F/121°C), low temperature (-40°F/-40°C) and high pressure (5000+psi/34,470 kPa) applications. Meets the technical requirements of ISO 15380. Its excellent oxidative and hydrolytic stability and near zero foaming tendency help to ensure that the fluids will last much longer than other EALs and conventional oils.

Futerra® offers greater flexibility and the ultimate system compatibility – offering drop-in replacement and broad seal compatibility. The Futerra® HF Series was specially designed for demanding applications where incidental environmental exposure of the lubricant is a cause for concern.

Typical Characteristics

ISO Grade	**32**
MPID	**219732**
Flash point, COC, °C (ASTM D92)	226
Foam Tend., Seq . I, mL (ASTM D892)	5
Foam Tend., Seq . II, ml mL (ASTM D892)	10
Foam Tend., Seq . III, mL mL (ASTM D892)	5
Kinematic Viscosity at 40°C, mm^2/s (ASTM D445)	32
Kinematic Viscosity at 100°C, mm^2/s (ASTM D445)	6.25
Viscosity Index (ASTM D2270)	135
FZG test, failure load stage, pass stage (ASTM D5182)	12
Pour point, °C (ASTM D97)	51

Recommended Applications

Futerra® HF 32 is designed to give maximum protection in hydraulic equipment used on vessels and in environmentally sensitive areas. This lubricant is readily biodegradable, non-bio accumulative, and minimally toxic. In the event of a spill, the product biodegrades by more than 60% within 28 days, minimizing the impact to the environment.

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Futerra® HF 32 is approved for:

- ☑ **Aker Solutions**
- ☑ **Berg/Caterpillar** CPP
- ☑ **Cargotec-MacGregor** Deck Equipment
- ☑ **MacGregor** Stern Ramps
- ☑ **Nakakita** Thruster

Futerra® HF 32 meets the requirements of:

- ☑ **CFR40** Part 435B: non-sheen
- ☑ **Denison** T6H20C HF 1, 2 & 6
- ☑ **Sauer Danfoss Pumps**
- ☑ **Vickers** 35VQ25, V104C Vane Pump
- ☑ **ZF**

Performance Benefits

1. Environmentally Acceptable
Meets the requirements of the EPA Vessel General Permit (VGP 2013) for biodegradation, low toxicity and low bioaccumulation.

2. Zinc-Free
Suited for applications involving yellow metals found in axial piston pumps.

3. Long Oil Life
Good ability of the synthetic base stock to withstand oxidation at high operating temperatures can result in maximum service life for the oil relative to vegetable based readily biodegradable products.

4. Low Temperature Pumpability
Specifically developed with high viscosity index to help ensure good fluidity for low operating temperatures.

5. Premium Performance
Ashless formulation helps to provide good protection against wear of hydraulic pumps, as well as rust and corrosion protection, hydrolytic stability, water separability, foam inhibition, and filterability.

Environment, Health and Safety

Information is available on this product in the Safety Data Sheet (SDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain an SDS for this product visit chevronmarineproducts.com.

Chevron's Family of Brands