



## TARMOND HSO ZF SERIES

### ZINC FREE HYDRAULIC SYSTEM OILS

#### Product Description:

TARMOND ZF HSO SERIES are blended with new generation zinc-free anti-wear (AW) additive technology and highly refined base stocks. They are high-performance hydraulic fluids for severe operating conditions, containing anti-oxidant and anti-foam additives at low temperatures.

#### Applications:

TARMOND ZF HSO SERIES Zinc Free Anti-Wear Hydraulic Fluid is designed as an environmentally safer alternative to conventional zinc based hydraulic fluid and is an excellent high pressure, high temperature power transfer fluid where vane, piston, and gear pumps are utilized. This fluid may also be used as a general purpose lubricant where straight mineral oils and conventional rust and oxidation inhibited oils are recommended in the appropriate viscosity grade. Such industrial applications may include (but are not limited to) machine tools, presses, die casting and injection molding machines among others.

#### Benefits:

- ❖ Good thermal stability
- ❖ Excellent oxidation resistance
- ❖ Load-carrying and wear-resistant performance
- ❖ Low pour points ensure fluidity at low temperatures
- ❖ Good demulsifying property
- ❖ Excellent filterability
- ❖ Excellent anti-foaming and release of entrained air
- ❖ Zinc-free chemistry, noncorrosive to silver and yellow metals found in some pumps
- ❖ Low environmental impact, no heavy metals to contaminate water or soil

#### Meets the Performances:

DIN 51524 Part 1 (HL), Part 2 (HLP), Part 3 (HVLP); Cincinnati P-68, P-69, P-70; AFNOR NF E 48-603 HL&HM; DENISON HF-0 Bench Tests

Please check your owner's manual for the manufacturer's recommended oil viscosity grade and API classification and approvals.

#### Technical Data:

TARMOND ZF HSO SERIES	Test method					
ISO VG	HM	22	32	46	68	100
Density at 15°C gr/cm <sup>3</sup>	ASTM D 1298	0.865	0.870	0.875	0.880	0.890
Viscosity at 40°C cSt	ASTM D 445	22	32	46	68	100
Viscosity at 100°C cSt	ASTM D 445	4	5	6.5	8.7	11
Viscosity Index	ASTM D 2270	95	95	95	95	95
Zinc, wt %	ASTM D5185	-	-	-	-	-
Flash point °C	ASTM D 92	190	216	220	220	220
Pour point °C	ASTM D 97	-33	-33	-30	-30	-30

Above values are the typical values of the products and may vary with each batch.