



PRODUCT & TECHNICAL DATA

PRO ENVIROSYN HO RANGE

SYNTHETIC, BIO-DEGRADABLE HYDRAULIC OIL

DESCRIPTION

Pro Envirosyn HO Range is based on synthetic esters which show a very good chemical resistance in highperformance hydraulic systems. Due to its nature Pro Envirosyn HO has extremely good viscosity/temperature properties, a high thermal stability and superior anti-wear properties due to its excellent lubricity. Additionally, due to the incorporated additive system, very good oxidative as well as hydrolytic stability is achieved. Good corrosion protection is of course also ensured. Pro Envirosyn HO shows a good biological biodegradability.

Please note that in spite of all its positive properties, the fire-resistance of Pro Envirosyn HO (as of all polyolester products (HFD-U)) cannot be compared to that of our water/glycol fluid; Pro FR Hydraulic Fluid Range.

APPLICATIONS

Pro Envirosyn HO can be used where water and high temperature is a challenge. The bio-degradability of this product makes it friendly to use in environmental areas, such as mines, open fields, etc, where and environmentally friendly hydraulic oil should be used.

Pro Envirosyn HO shows multiple advantages especially when being applied at high temperatures in a hydraulic system. Also in regard to safety it proves to be an excellent choice due to its high boiling temperature, its high flash and fire point as well as its high auto-ignition temperature. Thereby it offers a significantly higher level of safety than common hydraulic oils. Due to its basic fluid, it is to a high extent easily bio-degradable. It is not water-soluble and does not contaminate water because it can be skimmed off or separated relatively easily as it has a sufficiently low specific gravity.

Conversion of a system to Pro Envirosyn HO.

Even though Pro Envirosyn HO is miscible with crude oil based hydraulic oils or phosphoric esters in case of the conversion of a system to Pro Envirosyn HO, residues of both types should be removed from the system as thoroughly as possible because they would influence the bio-degradability of Pro Envirosyn HO. Therefore, a system flush with the min. quantity which is necessary to operate the hydraulic system with Pro Envirosyn HO is recommended. After approx. 2 - 3 days of operation the system should be drained and cleaned again and filled with fresh Pro Envirosyn HO.

Stability of Pro Envirosyn HO.

Pro Envirosyn HO is chemically very stable. In contrary to hydraulic fluids based on natural esters (triglycerides), it has a much better stability. It can be stored in sealed containers for a long period of time without a change of properties.

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PHYSICAL CHARACTERISTICS

Viscosity Grade	46	68
Appearance	Yellow-brownish	Yellow-brownish
Viscosity @ 20 °C	117	158
Viscosity @ 40 °C	49	65
Viscosity @ 50 °C	33	15
Viscosity Index	185	185
Flash Point °C	280	290
Pour Point, °C	-25	-25
Fire Point, °C	335	375
Auto-ignition Temperature, °C	430	490
Acid Number, mg KOH/g	1.5	1.5
Ash Content, %	0.01	0.01
Water Content, %	<0.05	<0.05
Air Separation Ability / 50°C, min	<5	<5
Foaming Characteristic, ml	<30 / 0	<30 / 0
Density @ 20 °C, mg KOH/g	0.916	0.928

GENERAL ADVICE

Further information on all Pro Oil SA lubricants is available from any Pro Oil SA office or from:
www.prooil.co.za

These characteristics are typical of current production.
Whilst future production will conform to Pro Oil SA's specification, variations in these characteristics may occur.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Pro Oil SA representative.

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