

HIDRAULIK SYN FR 46

Water-Glycol Fire Resistance Hydraulic Fluid

HIDRAULIK SYN FR is the latest generation water-glycol fire resistance hydraulic fluid that provide virtual total safety due to its fire-resistance properties. HIDRAULIK SYN FR is highly recommended for all hydraulic equipment operating in an environment of open flames, molten metal, hot-metal surfaces etc., where a potential fire hazard exists in case of hydraulic oil leaks.

HIDRAULIK SYN FR exhibits good service life for hydraulic components due to its excellent lubricity and anti-wear properties. It has higher aging stability compared with mineral oil. If well maintained, HIDRAULIK SYN FR will give a practically unlimited service life. Unlike mineral oil, it will not form sludge or residue in the hydraulic system.

HIDRAULIK SYN FR is an environmentally friendly fluid because it is biodegradable to a high extent, easy to handle and non-toxic. The German WGK class is 0 - which means that it is not dangerous to water. HIDRAULIK SYN FR Fluid contains neither PCB nor other chlorinated or brominated components.

HIDRAULIK SYN FR is a true solution that is totally stable. It consists of well-established combination of glycols of different chain-lengths, water and special additives to achieve excellent anti-wear properties, corrosion protection, foam control with good air release properties and does not mix with mineral oil.

Applications

Highly recommended for the use in all hydraulic equipment operating in an environment of open flames, molten metal, hot metal surfaces, etc.

It is also widely used in forestry equipment and water treatment plants as it is fully water-soluble and has good biodegradability.

Customer Benefits

- Long service life - If well maintained, HIDRAULIK SYN FR will give a practically unlimited service life.
- Non-toxic and Biodegradable
- Better thermal conductivity – lower hydraulic operating temperature

Typical Properties

Characteristics	FR-46
Appearance	Clear Red
Density @ 20°C	1.05 – 1.08
Viscosity, cSt	
@ 20°C	77
@ 40°C	38
@ 60°C	21
Viscosity Index	>150
pH Value @ 40°C	9.2 – 9.4
Pour Point, °C	-50
Flash Point, °C	--
Ash Content, %	0.05
Specific Heat, KJ/kg K	3.15
Thermal Conductivity, W/m K	0.43

Packaging

- In 209 Liters Drum.

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Compatible Metals

- Steel / Cast Iron
- Copper
- Brass
- Nickel
- Chromium
- Anodized Aluminum
- Aluminum*

* Aluminum is sensitive to any alkaline aqueous system. Therefore, aluminium alloys should only be employed in water-glycol hydraulic systems when absolutely necessary.

Incompatible Metals

- Zinc**
- Magnesium
- Cadmium
- Lead

** Zinc and Zinc alloys should not be used in water-glycol systems as small quantity of zinc may be dissolved in the alkaline aqueous system, forming zinc hydroxide or soaps that may block filters.

Non-Compatible Elastomers

- AU = Poly-Ester-Urethane
- EU = Poly-Ether-Urethane
- Leather
- Cork

Paint & Coating

- All water-glycol fluids soften conventional paints. Hydraulic fluid tank should not be coated internally. Stainless steel tank cover is highly recommended.

Customer Advice

For further assistance on product MSDS, recommendation or technical queries, please liaise with the regional Technical Services Engineer or contact HQ Technical Engineers.