

HYDKÖN Fire-Resistant Hydraulic Fluid HFD

Product Description

HYDKÖN Fire-Resistant Hydraulic HFD is a premium synthetic organic ester-based hydraulic fluid designed to replace conventional mineral oil-based hydraulic oils in applications where fire hazards exist. It offers exceptional thermal stability, fire resistance, and superior lubrication performance, ensuring safe and efficient operation of hydraulic systems. This fluid is fully biodegradable, non-toxic, and meets Factory Mutual (FM) fire resistance standards.

Performance Benefits

- **Fire-Resistant Formulation** : High ignition temperature and low heat release properties reduce fire hazards
- **Superior Wear Protection** : Matches the performance of premium anti-wear hydraulic oils
- **Excellent Oxidation & Thermal Stability** : Prevents sludge formation and extends fluid life
- **Fully Biodegradable & Non-Toxic** : Safe for both operators and the environment
- **Wide Compatibility** : Works with most hydraulic components and elastomers (except lead, cadmium, zinc alloys)
- **Emulsifies Water & Contaminants** : Ensures consistent lubrication even in harsh conditions

Application

HYDKÖN Fire-Resistant Hydraulic HFD is suitable for use in:

- Electro-hydraulic governor control systems in steam and gas turbines
- Hydraulic systems operating in fire-prone environments (steel plants, power generation, mining, aviation, foundries)
- High-temperature hydraulic applications requiring stable viscosity and oxidation resistance
- Environmentally sensitive applications where fluid toxicity is a concern

Specifications and Approvals

- DIN 51524 HFD
- ISO 6743-4 HFDU
- FM Global Approved Fire-Resistant Fluid
- Compliant with major OEM requirements for fire-resistant hydraulic applications

Health, Safety, and Environmental

- **Handling**: Avoid prolonged skin contact; wash immediately with soap and water if contact occurs.
- **Disposal**: Dispose of used oil responsibly at authorized collection points.
- **Storage**: Keep tightly closed and store in a dry, well-ventilated area between 0°C and 40°C.

Typical Properties

Parameter	Units	VG 46	VG 68	VG 100
Kinematic Viscosity @ 40°C	mm ² /s	46.0	68.0	100.0
Kinematic Viscosity @ 100°C	mm ² /s	10.2	11.0	15.5
Viscosity Index	-	180	185	190
Density @ 15°C	kg/m ³	0.920	0.925	0.930
Flash Point (COC)	°C	270	275	290
Pour Point	°C	-39	-36	-30
Air Release (50°C)	min	≤3	≤3	≤3
Foam Tendency (Seq I, 24°C)	ml	20/0	20/0	20/0
Fire Point	°C	380	385	400
Auto-Ignition Temperature	°C	500	505	520

