

# Fatty acid ester fire resistant hydraulic oil (MTFAE)

## ● Performance Overview

Maxtop fatty acid ester fire resistant hydraulic oil (MTFAE) is a kind of fatty acid ester fire resistant hydraulic oil made from fatty acid ester as the base component, adding a variety of functional agents such as anti-wear agent, oiliness agent and rust inhibitor. High flash point and spontaneous ignition point: will not burn in the event of fire, providing a high level of fire protection. Safe use: Suitable for high temperature or open fire environment to avoid fire accidents. High temperature performance: can maintain performance at high temperature, suitable for high temperature working environment. Stable viscosity: Viscosity that remains stable under temperature changes.



## ● Features

### 01

Excellent flame resistance: Due to its synthetic ester base, HFDU will not burn when exposed to fire, providing a high level of fire protection.

### 02

High thermal stability: Able to maintain performance at high temperatures, suitable for high temperature working environments.

### 03

Good lubricity: Contains anti-wear agents, provides good lubrication effect and reduces equipment wear.

### 04

High viscosity index: Maintains stable viscosity under temperature changes, suitable for use in a wide temperature range.

### 05

Good compatibility: Compatible with most hydraulic system materials and seals, including hoses and sealing materials.

### 06

Long service life: good anti-oxidation and chemical stability, long service life, and reduced oil change frequency.

## ● Application Scenario

It is suitable for hydraulic systems with flame retardancy requirements in industries such as metallurgy, mechanical refining, and mining. For example: hydraulic systems of electric furnaces in steelmaking, hydraulic systems of high-speed wire rod machines, hydraulic systems of plate rolling machines in hot rolling mills, etc.



# Fatty acid ester fire resistance hydraulic oil performance index

Project		Quality indicators	
Viscosity grade ( GB/T 3141 )		46	68
Kinematic viscosity ( 40 °C ) / ( mm <sup>2</sup> /s )		41.4~50.6	61.2~74.8
Appearance		transparent	
Water content (mass fraction) /%	No more than	0.1	
Pour point c /°C		Report	
Mechanical impurities		none	
Density ( 20°C ) / (kg/ m <sup>3</sup> )		Report	
Acid value (in KOH ) / (mg/g)		Report	
Air release value (50°C), min	not more than	8	10
Flash point/°C not less than		330	
Foam properties (foam tendency/foam stability)/(mL/mL)			
25°C	not more than	150/10	
50°C	not more than	75/10	
25°C	not more than	150/10	
Liquid phase corrosion (24h)		Rust-free	
Copper corrosion (100°C, 3h)/level	No more than	1b	
Rotating oxygen bomb (150°C) min	not less than	100	
Rubber compatibility (60°C/168h)			
Nitrile rubber (NBR 1)			
Volume change rate/%	not more than	7	
Hardness change is	not less than/not greater than	-7/+2	
Tensile strength change rate/%		Report	
Change rate of elongation at break/%		Report	
FZG gear test (A/8.3/90)/failure level	not less than	11	
Vane pump test (100h, total weight loss)/mg	not more than	50	