

# Mabanol Helium Hyd Eco Syn 46<sup>leaf</sup>

Rapidly biodegradable, zinc and ash-free HVLP high performance hydraulic oil



**HVLP**  
**DIN 51524-3**

**HEPR**  
**ISO 15380**



## Key Features:

- ✓ Meets and exceeds the requirements of the Industrial standard DIN 51524-3 for HVLP hydraulic oils, ISO 15380 for biodegradable hydraulic oils and the EU Ecolabel
- ✓ Excellent oxidation and aging stability
- ✓ Excellent performance in the presence of water – no water separator necessary
- ✓ Compatible with products based on mineral oil and ester
- ✓ Compatible with common seals – no swelling of seals and hoses
- ✓ Zinc and ash-free
- ✓ Distinctive energy saving potential
- ✓ One product for a variety of applications allows product line optimization

## Mabanol Helium Hyd Eco Syn 46 protects your system and the environment - sustainable and efficient.

**Mabanol Helium Hyd Eco Syn 46** is a fully synthetic high-performance hydraulic oil for mobile and stationary hydraulic systems in forestry, construction and agriculture, in hydropower and sewage treatment plants as well as in other environmentally sensitive areas where biodegradable hydraulic oils have to be used.

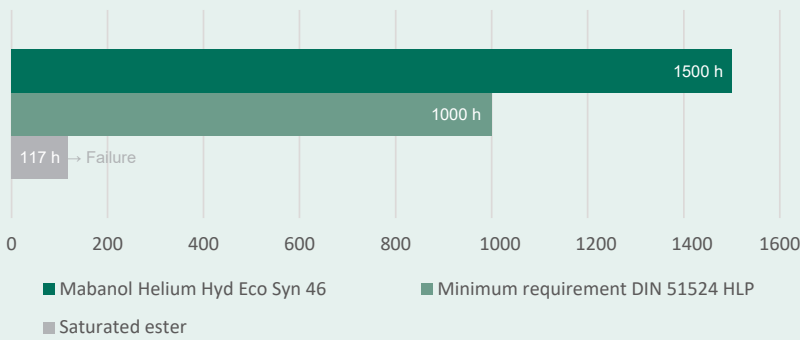
**Mabanol Helium Hyd Eco Syn 46** provides excellent oxidation and aging stability and ensures precise hydraulic power transmission with effective wear protection far beyond the requirements of standard industry tests.

In particular the water resistance of **Mabanol Helium Hyd Eco Syn 46** allows the safe application in humid environments and extends oil change intervals as well as the system lifespan.

EU Ecolabel: NL/027/024

## TOST Test

TOST Test ASTM D 943 (with water) for HLP-Hydraulic oils

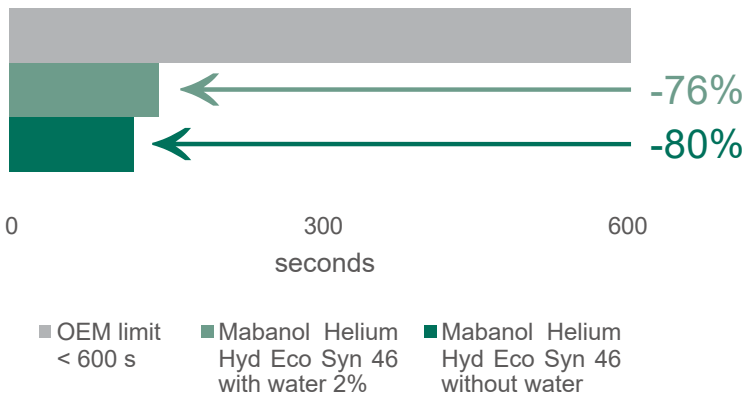


> 100x

higher aging stability  
compared to ester-based  
products

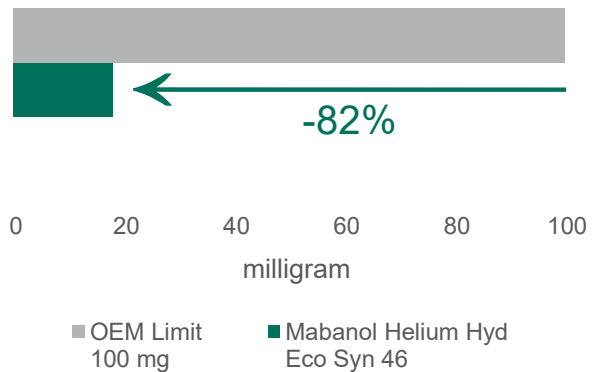
## Filtration

PARKER DENISON TP 02100 TEST  
Filtration in seconds



## Sludge Formation

CINCINNATI P70 TEST  
168h/135°C - sludge formation in mg



157

viscosity  
index  
ASTM D 7042

5 min

air release  
properties  
ASTM D 3427

> 60%

bio-  
degradable  
OECD 301 B

- 40°C

pour point  
ASTM D 97 /  
DIN EN ISO 3016