

## PLANTOHYD N

**Environmentally friendly hydraulic and lubricating oils based on natural esters, type HETG, according to ISO 15380, for mobile and stationary hydraulic equipments, awarded with the EU Ecolabel**

### Description

PLANTOHYD N products are hydraulic oils based on renewable, natural substances (triglycerides) with active ingredients for the improvement of oxidation and ageing stability. Due to their very good biodegradability, Plantohyd N-oils are an environmentally friendly alternative to mineral based hydraulic oils (at low and medium load). The high polarity of the PLANTOHYD N oils results in excellent lubricating properties. The products fulfill and exceed the minimum requirements according to ISO 15380, type HETG.

PLANTOHYD 40 N has been awarded with the EU Ecolabel.

### Application

PLANTOHYD 32 N or PLANTOHYD 40 N can be applied in mobile and stationary hydraulic equipments which must be filled with ISO VG 32 or ISO VG 46 hydraulic oil. In case of an oil change to PLANTOHYD N in hydraulic aggregates the guidelines for fluid change according to ISO 15380 must be observed. Repair paints and paints/lacquers which are not based on 2-component systems, are perhaps not stable to mineral oil as well as natural esters. Therefore paint compatibility should be checked in advance. The PLANTOHYD N products will show their best performance at tank temperatures between 50 and 60 °C. Recommended temperature range for application: - 27 °C till + 70 °C.

### Specifications

The products of the PLANTOHYD N series fulfill or exceed the requirements according to

- ISO 15380: HETG
- EU Ecolabel for PLANTOHYD 40 N

### Advantages

- Based on renewable raw materials, > 95%
- Environmentally compatible
- Rapidly biodegradable (> 60% according to OECD 301 B)
- Multigrade characteristics due to high natural, shear stable viscosity index
- Good corrosion protection
- Excellent lubricating properties
- Low evaporation loss
- Natural cleaning properties
- Good low temperature characteristics

EU Ecolabel : DE/027/273



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### Typical technical data:

Product name		PLANTOHYD		
		32 N	40 N	
Properties	Unit			Test method
ISO VG		32	46	DIN 51519
Kinematic viscosity				DIN EN ISO 3104
at - 20 °C	mm <sup>2</sup> /s	898	1100	
at 0 °C	mm <sup>2</sup> /s	280	260	
at 40 °C	mm <sup>2</sup> /s	31.4	42	
at 100 °C	mm <sup>2</sup> /s	7.4	9.3	
Viscosity index	-	213	215	DIN ISO 2909
Density at 15 °C	kg/m <sup>3</sup>	922	922	DIN 51757
Colour	ASTM	1.0	1.0	DIN ISO 2049
Flash point in open cup, acc. to Cleveland	°C	274	300	DIN ISO 2592
Pourpoint	°C	-39	-39	DIN ISO 3016
Neutralisation number	mgKOH/g	0.7	0.6	DIN 51558-1
Scuffing and scoring test, FZG A/8.3/90	failure load stage	12	12	DIN ISO 14635-1
Effect on sealing materials:				ISO 6072
FKM2, 1008 h, 80 °C				
- relative change of volume	%		+ 0.5	
- change of Shore A hardness	Shore		- 2.0	
HNBR1, 1008 h, 80 °C				
- relative change of volume	%		+ 3.8	
- change of Shore A hardness	Shore		- 2.8	