

PANOLIN BIOFLUID ZFH

UTTO lubricant – fully synthetic, readily biodegradable

PANOLIN BIOFLUID ZFH:

- Fully synthetic biodegradable lubricant for combined use with gearboxes, hydraulic systems and hydrodynamic brakes
- Developed in close collaboration with ZF Friedrichshafen*
- Reduces and in many cases eliminates deposits on friction discs/clutches
- Enables longer oil change intervals
- Outstanding thermo-ageing stability
- Excellent cold-running characteristics (extremely low pour point)
- Compatible with all commercial sealing materials
- Outstanding wear protection

* In Friedrichshafen extensive tests were carried out on various facilities, among other purposes to meet the high demands of ZF on both static and dynamic friction characteristics.

Changing from conventional mineral oil to PANOLIN BIOFLUID ZFH

When changing over from conventional mineral oil, the system must be completely drained and flushed. Deposits which have built up during operation with mineral oil may loosen.

In order to prevent mixing with mineral oil, auxiliary equipment and implements must also be filled with PANOLIN BIOFLUID ZFH. Hydraulic oils, for example, may otherwise alter the frictional characteristics and thus cause clutch slipping, bad gear-changing or noisy operation of hydrodynamic brakes.

Applications (follow manufacturer's instructions)

- Powershift gearboxes, differentials, hydraulic systems and hydrodynamic brakes in excavators, forestry, agricultural and rail maintenance machinery

Environmental compatibility (average values – biological data subject to natural fluctuations)

- Biodegradability acc. to OECD 301 B: 71 %
- VwVwS classification: WGK-1, weak water pollutant

Performance level (meets requirements for product approval, but no specific manufacturer approval)

FZG Test A/8.3/90 load stage 11

Approvals (valid manufacturer approval for the specific lubricant.)

Gürdesan
ZF TE ML 03H
ZF TE ML 06G
ZF TE ML 07E

Technical data (mean values, subject to normal tolerances)

PANOLIN BIOFLUID ZFH	Prod.No.	Density (g/cm ³) 15 °C	Viscosity (mm ² /s) 40 °C 100 °C	Flashpoint C.O.C., °C	Pour point °C	Viscosity index
ISO 68; SAE 10W/30	26820	0.923	65 10.7	222	– 55	155

Safety-relevant notes:

Please refer to the drum label, or for detailed information, to the safety data sheet (available from PANOLIN)