

BIODEGRADABLE OILS
 5/155 Canterbury Rd
 Kilsyth VIC 3137
 Ph: +61 1300 131 471
 Fax: +61 3 9761 6977
 www.biodegradableoils.com
 info@biodegradableoils.com



PANOLIN HLP SYNTH

PANOLIN HLP SYNTH high-performance hydraulic oil is based on saturated synthetic esters, contains additives against ageing, corrosion and wear and is biologically degradable.

PANOLIN HLP SYNTH prevents gumming and deposits of ageing products, even at high temperatures, thanks to its synthetic basis. Additives are optimized for the highest technical demands and environmental compatibility.

PANOLIN HLP SYNTH gives you the following benefits:

- extremely long oil-change interval «lifetime filling»
- far greater reserve capacities than conventional hydraulic oils
- outstanding high-pressure characteristics
- excellent cold flow characteristics (extremely low pour point)
- oxidation-resistant at high temperatures

Changing to PANOLIN HLP SYNTH

When changing from mineral oil to PANOLIN HLP SYNTH, please follow manufacturer's instructions.

NB: PANOLIN HLP SYNTH may loosen any deposits in the hydraulic system.

Applications (follow manufacturer's instructions)

- for earthmoving and forestry hydraulic systems, the machine industry, construction and hydroelectric engineering
- compressors, bearing lubrication and oil circulation systems

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

In case of any leakage, PANOLIN HLP SYNTH is fully decomposed by soil or water microorganisms, without affecting the environment and practically free of deposits.

- ASTM D-6046-98a: P_w1, T_w1, T_s1
- «Blauer Engel UZ 79/The Blue Angel» due to its rapid biodegradability; 3502 – 3506
- Czech Ecolabelling Agency «Ekologicky Šetrný Výrobek 15 – 02»
- Japan Environment Association-Eco Mark, Certified Number 01110004
- OECD 301: 70 % (mean value)
- ÖNORM, Part 5
- Swedish Standard SS 15 54 34
- Water hazard classifications (VwVwS) 3502 – 3504 = nwg; 3505 – 3507 = WGK-1



Performance standards

ASTM D 943 (Dry TOST test) > 2'000 h

FZG Test A/8.3/90 loading stage 12

ISO 15'380

Rotary-bomb-test 1'162 min

VDMA 24'568 HEES (synthetic esters insoluble in water)

Vickers 35 VQ-25, V104 C

Technical data (mean values, subject to normal tolerances)

PANOLIN HLP SYNTH	Product No.	Density (g/cm ³) 15 °C	Viscosity (mm ² /s) 40 °C	Viscosity (mm ² /s) 100 °C	Flashpoint COC °C	Pour point in °C	Viscosity index	Iodine No.
15	3502	0.922	16.4	3.99	220	-60	146	< 5
22	3503	0.920	21.8	4.70	220	-58	141	< 5
32	3504	0.918	30.6	5.89	240	-58	140	< 5
46	3505	0.918	47.0	8.10	240	-57	146	< 5
68	3506	0.918	70.6	11.30	240	-55	153	< 5
100	3507	0.918	105.0	15.50	240	-53	156	< 5