



PANOLIN
Bläsimühle 2 – 6
CH-8322 Madetswil
Switzerland
www.panolin.com



Part of the PANOLIN concepts



PANOLIN HLP SYNTH E

Hydraulic fluid – readily biodegradable, saturated synthetic esters

Environmentally Considerate Lubricant (ECL)/Environmentally Acceptable Lubricant (EAL)

Features and benefits

- Fully synthetic, high-performance, readily biodegradable, zinc-free and environmentally friendly hydraulic fluid, based on saturated synthetic esters with special additive technology
- Minimally toxic (according to OECD 201/202/203)
- CO₂ reduction due to extended oil-change intervals – enables higher machine efficiency
- Prevents gumming and deposits of ageing products even under high thermal load
- Excellent cold flow characteristics (extremely low pour point)
- Do not mix with other readily biodegradable hydraulic fluids – please refer to our «PANOLIN Conversion and Operating Guidelines» regarding mineral oils, synthetic fluids and PANOLIN ECLs/EALs

Applications (follow manufacturer's instructions)

- For stationary and mobile hydraulic systems: e.g. earthmoving and forestry hydraulic systems, the machine industry, construction and hydroelectric engineering
- Compressors, bearing lubrication and oil circulation systems
- Marine hydraulic systems, e.g. CPP, stabilisers, steering and deck equipment

Environmental compatibility

It is decomposed by micro-organisms in water and/or soil almost without any residues.

- Biodegradability acc. to OECD 301 B: > 60%
- EU Ecolabel – DE/027/289 (35640); (35625, 35630, 35635, 35645 – pending)
- Swedish Standard SS 15 54 34 (35625, 35630, 35635, 35640); (35645 – pending)
- US EPA VIDA (Vessel Incidental Discharge Act), VGP 2013 (Vessel General Permit)
- Water hazard classifications acc. to AwSV: WGK 1

Specifications

ASTM D 8029

FZG A/8.3/90: 12 (35630, 35635, 35640, 35645)

ISO 15380/HEES

Approvals (valid manufacturer approval for the specific lubricant)

Airo by TIGIEFFE s.r.l. (35630, 35640)
Alamo Industrial (35640)
Fincantieri S.p.A. (35640, 35645)
Geesinknorba (35635, 35640, 35645)
Macor Marine (35625, 35630, 35635, 35640)
Navalimpianti-Tecnimpanti
Putzmeister Concrete Pumps (35635)
Sequani Meccanica/CTE (35635)
Terex Demag (35635, 35640, 35645)
Tre Emme (35640)



Technical data (mean values, subject to normal tolerances)

| PANOLIN HLP SYNTH E | Product No. | Density g/cm ³ 15 °C | Viscosity in mm ² /s | | Flashpoint COC in °C | Pour point in °C | Viscosity index | Iodine No. |
|------------------------|----------------|------------------------------------|---------------------------------|--------|-------------------------|---------------------|--------------------|---------------|
| | | | 40 °C | 100 °C | | | | |
| 15 | 35625 | 0.919 | 15.7 | 3.8 | 226 | -36 | 142 | < 5 |
| 22 | 35630 | 0.918 | 21.2 | 4.7 | 245 | -57 | 141 | < 5 |
| 32 | 35635 | 0.916 | 32.3 | 6.5 | 253 | -54 | 160 | < 7 |
| 46 | 35640 | 0.917 | 45.7 | 8.6 | 259 | -51 | 168 | < 15 |
| 68 | 35645 | 0.921 | 67.0 | 11.7 | 222 | -48 | 171 | < 23 |

Instructions

Please refer to the drum label, or for detailed information, to the safety data sheet – available from PANOLIN.
Before changing over to PANOLIN ECLs/EALs, please ask for our instructions.