



DURALIFE® PAO SYNTHETIC CIRCULATING & BEARING OILS

DURALIFE® PAO SYNTHETIC CIRCULATING & BEARING OILS are manufactured from Polyalphaolefin (PAO) synthetic base oils with specially selected additives for use in large circulating systems. They are rust and oxidation (R&O) inhibited, antiwear, ashless (zinc-free) circulating oils for use in a variety of applications such as circulatory systems for hydraulic systems, vacuum pumps, rolling mills, reduction gears, air compressors, steam turbines, steam-engine crank-chambers and calenders for both rolling and plain bearings.

APPLICATIONS :

DURALIFE® PAO SYNTHETIC CIRCULATING & BEARING OILS are recommended for industrial applications, industrial circulating system, direct-drive steam turbines, hydroelectric turbines, gas turbines, rotary and centrifugal air compressors, vacuum pumps, heat transfer fluid where uninhibited oils are recommended. They are also suitable for use in industrial gear drives, plain and rolling element bearings, machine tools, air tools lubricated through airline lubricators, engine air cleaners, process or extender in the rubber and plastic industries.

Meet the requirements of :

DIN 51524, part 1 (HL), Teil 2(HLP); DIN 51517, part 2 (CL) & part 3 (CLP); AFNOR NF E 48-603 (HL); Cincinnati-Machine P-38 (HL-32), P-55 (HL-46), P-54 (HL-68), P-57 (HL-150), P-62 (FC-10)
 DIN 51506(VBL, VCL, VDL), DIN 51515, part 1 (L-TD), part 2 (L-TG); Siemens TLV 9013 04/05; British Standard BS 489; SOLAR TURBINES ES 9-224; General Electric GEK 32568 A/C; GEK32568J, GEK 46506E, GEK 101941A; INDIAN STANDARD IS 1012 ;ISO 11158 HH, HL; ISO 8068 TSA, TGA, TGE & TSE; JIS K2213 TYPE 2; CEBG Standard 207001; Brown Boveri HTGD 90117; Westinghouse Electric Corp. Turbine Oil Spec.;
 Alstom HTGD 90 117 V0001 S; ASTM D4304Type 1 Turbine Oil, G
 U.S. Military MIL-L-17672 D;
 Ingersol-Range CentaK Centrifugal Compressors; ISO / DP 6521 (DAA, DAB, DAH, DAG)
 AGMA 9005 F-16 R&O
 AGMA 250.04 (EP Gear Oils), AGMA 9005 - D 94 (EP Gear Oils)
 ASTM D-4304 TYPE I, TYPE II, TYPE III
 U.S. Steel 120, 126, 224, 222, 223

BENEFITS :

- Provide long oil life with excellent filterability with all commercial filters, including Fullers Earth.
- Filled for life gearboxes, especially high ratio/low-efficiency worm gears.
- Good thermal and oxidation stability.
- Excellent demulsibility as it separate from water easily.
- Good antifoam properties.
- Low carbon residue forming tendencies minimizes deposit formation in air compressor service.

TYPICAL CHARACTERISTICS :

Test	Method	FSCS 15	FSCS 22	FSCS 32	FSCS 46	FSCS 68	FSCS 100
API Gravity	ASTM D287	41.00	34.58	37.76	36.95	35.96	35.36
Specific Gravity @ 15.6°C (60°F)	ASTM D1298	0.820	0.825	0.836	0.840	0.845	0.848
Viscosity @ 40°C, cSt	ASTM D445	15	22	32	46	68	100
Viscosity Index	ASTM D 2270	130	135	135	140	140	140
FZG Load Support, Fail Stage	DIN 51534	11	11	11	12	12	12
Flash Point, °C (°F)	ASTM D92	220 (428)	240 (464)	246 (475)	260 (500)	266 (511)	250 (482)
Pour Point, °C (°F)	ASTM D97	-66 (-87)	-57 (-71)	-57 (-71)	-48 (-54)	-48 (-54)	-45 (-49)

Test	Method	FSCS150	FSCS 220	FSCS 320	FSCS 460	FSCS 680	FSCS 1000
API Gravity	ASTM D287	34.97	34.58	34.00	33.42	33.00	32.65
Specific Gravity @ 15°C (60°F)	ASTM D1298	0.850	0.852	0.855	0.858	0.860	0.862
Viscosity @ 40°C, cSt	ASTM D445	150	220	320	460	680	1000
Viscosity Index	ASTM D 2270	145	155	155	160	165	170
FZG Load Support, Fail Stage	DIN 51534	13	13	13	>13	>13	>13
Flash Point, °C (°F)	ASTM D92	260 (500)	265 (509)	265 (509)	281 (538)	281 (538)	283 (541)
Pour Point, °C (°F)	ASTM D97	-42 (-44)	-42 (-44)	-42 (-44)	-36 (-33)	-36 (-33)	-30 (-22)

The above characteristics are average values based on recent production .Minor variations which do not affect product performance are to be expected in normal manufacture .

WARNING :

Continuous contact with used oil has caused skin cancer in animal tests. Avoid prolonged contact. Thoroughly wash exposed areas with soap and water. Keep out of reach of children.
Don't pollute. Conserve resources. Return used oil and bottle to collection centers

Reference MSDS Number 12157 database on our website at www.amtecol.com