

TECHNICAL DATA SHEET

NEXT POE

POE Refrigeration Lubricant · 422 Series

NEXT POE is a next-generation polyol-ester (POE) refrigeration lubricant, specifically formulated for use with both conventional HFC refrigerants and the new low-GWP HFO refrigerants.

This highly oxidatively and thermally stable formulation delivers a long fluid life and provides excellent protection for critical system components.

**APPLICATIONS**

- Reciprocating compressors
- Rotary screw compressors
- Centrifugal compressors
- Scroll compressors
- Rotary vane compressors

REFRIGERANTS

- Compatible with HFC and HFO refrigerants, including:
- R-32, R-1234yf, R-134a, R-404a, R-410a, R-417a, R-422a, R-422d, R-427a, R-448a, R-449a, R-450, R-455a, R-507, R-508b, R-513a

BENEFITS

- Long fluid life
- Formulated for use with HFO and HFC refrigerants
- High viscosity index for excellent fluidity and lubricity
- Excellent low-temperature stability
- Excellent wear protection
- Highly stable formulation – ideal where water contamination is a risk

TECHNICAL SPECIFICATIONS

Typical properties

ISO Viscosity Grade	22	32	46	55	68	85	100
Viscosity @ 40 °C / 104 °F (cSt)	23	33	45	54	69	85	99
Viscosity @ 100 °C / 212 °F (cSt)	4.7	6.1	7.7	8.8	10.1	11.4	12.2
Viscosity Index	124	132	140	143	130	122	115
Density @ 15 °C / 59 °F (g/cm³)	0.99	0.99	1.00	1.00	0.99	0.99	0.98
Pour Point (°C / °F)	-57 / -71	-57 / -71	-54 / -65	-52 / -62	-48 / -54	-42 / -44	-39 / -38
Flash Point (°C / °F)	243 / 469	244 / 471	246 / 475	247 / 477	250 / 482	250 / 482	253 / 487
Copper Strip Corrosion (D130)	1a	1a	1a	1a	1a	1a	1a
Color (ASTM D1500)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Total Acid Number (mg KOH/g)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

ISO Viscosity Grade	120	150	170	220	320	380
Viscosity @ 40 °C / 104 °F (cSt)	120	150	168	215	310	375
Viscosity @ 100 °C / 212 °F (cSt)	13.9	16.4	17.7	21.5	26.3	25.4
Viscosity Index	113	116	116	120	111	89
Density @ 15 °C / 59 °F (g/cm³)	0.98	0.98	0.98	0.98	0.97	0.97
Pour Point (°C / °F)	-36 / -33	-36 / -33	-36 / -33	-34 / -29	-22 / -8	-18 / 0
Flash Point (°C / °F)	260 / 500	272 / 522	277 / 531	287 / 549	280 / 536	290 / 554
Copper Strip Corrosion (D130)	1a	1a	1a	1a	1a	1a
Color (ASTM D1500)	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5	≤0.5
Total Acid Number (mg KOH/g)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

NOTE

Values in this Technical Data Sheet are typical and do not constitute a specification. Manufacturing specifications are available on request. Minimum operating temperatures are based on low-temperature viscosity and refrigerant miscibility data; consult a NEXT Lubricants representative for operation below the pour point. Routine oil analysis is recommended to assess the in-service condition of the lubricant. Specifications are subject to change due to formulation or raw-material updates; always verify that this TDS is the most current version.