

Polyol Esters Technical Data Sheet

Polyol esters are made from organic carboxylic acids and neo-polyols. Neo-polyols have a thermally and oxidatively stable carbon center surrounded by two or more hydroxyl groups. The neo-polyol is reacted with natural or synthetic acids to make a polyol ester. The acid feedstocks determine characteristics such as polarity, lubricity, biodegradability and bio-based content.

Many types of polyol esters are manufactured, and each is optimized for high or low temperature properties, viscosity, volatility, fire resistance, or even low cost. Zschimmer & Schwarz designs each polyol ester to match the demands of the application.

Polyol esters are well known for their outstanding high temperature performance. They are the preferred base fluid for jet turbine lubricants, compressor oils, oven chain lubricants, fire resistant hydraulic fluids and high temperature greases. Some also remain liquid at extremely low temperatures and are used in refrigeration oils and arctic lubricants.

Synthetic Ester	Chemistry	Viscosity @40 °C(cSt)	Viscosity @100 °C(cSt)	Viscosity Index	Flash Pt. (°C)	Pour Pt. (°C)
Lexolube 2I-214	NPG	6	2	125	190	-60
Lexolube 3I-310	TMP	14	3	120	230	-65
Lubricit TMP C810	TMP	19	4	140	270	-45
Lubricit TMP C9	TMP	21	5	140	285	-30
Lubricit PE C7*	PE	22	5	135	240	-20
Lubricit NGDO	NPG	24	6	200	270	-60
Lubricit PE 4810*	PE	32	6	140	300	-10
Lubricit PE 49*	PE	33	6	150	315	-45
Lubricit TMP THCFA	TMP	37	7	155	300	-15
Lubricit 9515	NPG	46	8	150	280	-35
Lubricit TMP C18	TMP	46	9	190	325	-45
Lubricit PE 418	PE	66	12	185	340	-35
Lexolube PQ-68*	PE	68	9	105	250	-30
Lexolube POE-68HT*	DPE	68	10	130	285	-45
Lexolube POE-100HT*	DPE	100	12	110	295	-35
Lexolube POE-220HT*	DPE	220	19	95	300	-25
Lubricit DPE 89*	DPE	310	23	90	300	-10
Lexolube POE-350HT*	DPE	350	24	90	300	-20
Lubricit DPE 6iC9*	DPE	390	26	90	315	-20

Features

- ▶ Thermal/oxidative stability
- ▶ Low volatility
- ▶ High flash point
- ▶ Clean performance
- ▶ Low temperature fluidity
- ▶ HX-1 products available

Applications

- ▶ Compressor oils
- ▶ Fire resistant hydraulic fluids
- ▶ Oven chain oils
- ▶ Transformer oils
- ▶ Jet turbine lubricants
- ▶ Engine oils

*Certain methods and uses may be covered under one or more pending patents held by Zschimmer & Schwarz worldwide

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