

Polyol Esters Technical Data Sheet (1 of 2)

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 carboxylic acid components determine characteristics such as polarity, lubricity, biodegradability and bio-based content.

A wide variety of polyol ester structures are produced, and each is optimized for high or low temperature properties, viscosity, volatility, fire resistance, and 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. Most polyol esters offer natural high viscosity index that boosts lubrication efficiency.

Synthetic Ester	Chemistry	Viscosity @ 40°C (cSt)	Viscosity @ 100°C (cSt)	Viscosity Index	Flash Pt. (°C)	Pour Pt. (°C)
LEXOLUBE 2I-214	NPG	5.5	1.9	na	190	-70
LUBRICIT NGC810	NPG	8.2	2.5	135	205	-30
LUBRICIT NG 710	NPG	8.3	2.5	140	210	-50
LUBRICIT NGDP/1	NPG	9	2.6	115	205	-30
LEXOLUBE 3I-310	TMP	14	3.4	120	230	-65
LEXOLUBE 3Q-310	TMP	18	4	120	250	-65
LUBRICIT NGDC	NPG	18	4	155	220	0
LUBRICIT TMP C810	TMP	20	4.4	140	260	-40
LUBRICIT TMP C9	TMP	21	4.6	140	275	-50
LEXOLUBE POE-22	TMP	22	4.7	140	270	-40
LUBRICIT PE 510/1*	PE	22	4.7	135	285	-45
LUBRICIT PE C7*	PE	22	5	135	240	-20
LUBRICIT NGDO	NPG	24	5.8	200	260	-30
LEXOLUBE PQ-25*	PE	25	5	134	265	-55
LEXOLUBE 3JN-310	TMP	30	5.8	150	280	0
LEXOLUBE POE-32	Polyol	32	6.0	135	270	-40
LUBRICIT PE 4810*	PE	32	6.1	145	300	-5
LUBRICIT PE 49*	PE	33	6.3	140	300	2
LUBRICIT TMP THCFA	TMP	37	7.2	160	300	5
LEXOLUBE 4T-415*	PE	46	6	80	235	-15
LEXOLUBE POE-46	Polyol	46	7.4	135	270	-45
LUBRICIT 9515	NPG	46	8.2	150	280	-35
LUBRICIT TMP C18	TMP	46	9.4	190	325	-40
LUBRICIT TMP IC9	TMP	50	7	95	245	-35

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Synthetic Ester	Chemistry	Viscosity @ 40°C (cSt)	Viscosity @ 100°C (cSt)	Viscosity Index	Flash Pt. (°C)	Pour Pt. (°C)
LUBRICIT PE 418	PE	66	12	185	330	-20
LEXOLUBE POE-68HT*	DPE	68	10	130	300	-40
LEXOLUBE PQ-68*	PE	68	8.6	100	250	-30
LEXOLUBE 5NQ-517*	Polyol	71	10	135	295	-30
LEXOLUBE 4VQ-415*	PE	91	10	90	230	-30
LEXOLUBE POE-100HT*	DPE	100	12	120	300	-35
LUBRICIT DPE 618	DPE	110	18	180	360	-25
LUBRICIT PE 118	PE	115	14	125	320	-15
LUBRICIT 9532*	DPE	124	14	115	300	-30
LUBRICIT PE iC18	PE	145	18	140	320	-30
LEXOLUBE 6NQ-617*	DPE	220	20	105	300	-25
LEXOLUBE POE-220HT*	DPE	220	19	100	300	-25
LUBRICIT 9537*	PE	300	22	90	300	-5
LUBRICIT DPE 89*	DPE	305	23	90	300	-15
LEXOLUBE POE-350HT*	DPE	350	25	90	300	-15
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

Please inquire about additional tailor-made products that can be made to fit your exact performance requirements.

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

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