ZSCHIMMER & SCHWARZ

LUBRICANTS

ESTERTEC® VSP High-Performance Lubricant Components

Technical Data Sheet - Industrial Viscosity Grades – ISO 46 to ISO 150

Synthetic esters derived from vicinal secondary diols offer exceptional performance based on their innovative structure achieved via a unique production process. Steric hindrance enhances oxidative stability, while secondary alcohols on adjacent carbons significantly improve hydrolytic stability. ESTERTEC® VSP base stocks deliver natural energy efficiency with a combination of low density and high VI that significantly reduce friction and wear. Designed for formulating industrial lubricants, functional fluids and greases that deliver Value, Sustainability and Performance (VSP).

Property, Typical Values	Test Method	ESTERTEC 7GX-1446	ESTERTEC 7GX-1468	ESTERTEC 7GX-14100	ESTERTEC 8LX-14150
Appearance	Visual	Clear liquid	Clear liquid	Clear liquid	Clear liquid
Viscosity, cSt (100 °C)	ASTM D7042	9	11	14	18
Viscosity, cSt (40 °C)	ASTM D7042	46	68	100	150
Viscosity, cSt (20 °C)	ASTM D7042	110	180	280	400
Viscosity index	ASTM D2270	165	155	145	130
Density/Specific gravity @ 15 °C	ASTM D4052	0.900	0.915	0.925	0.935
Pour point, °C	ASTM D97	-40	-40	-35	-35
Flash point, °C (COC)	ASTM D92	290	290	290	290
TAN, mg KOH/g	ASTM D974	<0.1	<0.1	<0.1	<0.1
Water content, weight %	ASTM D6304	<0.1	<0.1	<0.1	<0.1
Noack volatility, weight % (250 °C)	ASTM D6375	<1	<1	<1	<1
4-Ball Wear, mm, 40kg/1200rpm/75°C	ASTM D4172	0.61	0.67	0.73	0.78
Coefficient of Friction	ASTM D4172	0.178	0.180	0.180	0.180
Copper corrosion	ASTM D130	1b	1b	1b	1b
Oxidation onset temperature (OOT) °C	ASTM E2009	250	250	245	245
Hydrolytic stability Oil / Water acidity, mg KOH/g / mg KOH	ASTM D2619	0.1 / 1.0	0.1 / 1.0	0.1 / 0.7	0.1 / 0.30

Features

- Excellent lubricity, low friction and antiwear
- Best-in-class hydrolytic stability
- Good thermal/oxidative stability
- Low density for energy efficiency
- Readily (ISO 46, ISO 68) or inherently (ISO 100, ISO 150) biodegradable, 30–62 % biogenic content

Applications

- Hydraulic fluids
- Compressor oils
- Gear and Oven Chain lubricants
- Engine and Driveline lubricants
- EAL, Marine, Sustainable lubricants and fluids

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