Product information

DSL® Series (Diester)

Synthetic air compressor lubricants

Your benefits at a glance

- Low temperature fluidity
- Better thermal conductivity, reduces operating temperature
- Reduced friction, approximately 20% lower coefficient of friction
- High temperature thermal stability will not disassociate under thermal stress
- Greater resistance to mechanical stress will not shear under heavy loads or extreme stress
- Reduced metal-to-metal wear-polar properties provided better metal wetting
- Better demulsibility characteristics-moisture seperates readily, providing better rust and corrosion protection
- More energy efficiency

Your requirements - our solution

DSL synthetic lubricants are unique combinations of quality diester base stocks and the latest additive technology.

Summit provides a wide range of DSL lubricants that cover applications for rotary vane, rotary screw, and all ages and design types of reciprocating compressors.

These lubricants are designed for use in the crankcase and as a cylinder lubricant. They are compatible with almost all elastomers used in compressors and pumps, including paint used in crankcases.

The following materials are compatible for use with DSL lubricants: Epoxy Paint, Celcon, Viton®, High Nitrile Rubber (Buna N, NBR-greater than 36% Acrylonitrile), Medium Nitrile Rubber (Buna N, NBR 30-36% Acrylonitrile), Teflon®, Oil Resistant Alkyd, and Nylon.

Application

DSL®-32 is recommended for use in the following applications:

- Centrifugal compressors
- Certain rotary screw & vane compressors
- Low temperature lubrication
- High temperature lubrication
- General lubrication for applications requiring an ISO 32 lubricant

DSL®-68 is recommended for use in the following applications:

- Rotary screw and vane applications
- Ball and roller bearings
- Low temperature lubrication
- High temperature lubrication
- Mist lubrication systems
- General lubrication for applications requiring an ISO 68 lubricant

DSL®-100 is recommended for use in the following applications:

- Reciprocating compressors
- Rotary vane compressors
- Ball and roller bearings
- Low temperature lubrication
- High temperature lubrication
- General lubrication for applications requiring an ISO 100 lubricant

DSL®-125 and DSL®-150 are recommended for the following applications:

- Reciprocating compressors
- Rotary vane compressors
- Ball and roller bearings
- Low temperature lubrication
- High temperature lubrication
- General lubrication for applications requiring an ISO 150 lubricant

Application notes

DSL lubricants are not compatible with some elastomers used in compressors and pumps including some paint used in crankcases. Consult the Material Compatibility Guide for specific recommendations.

Material safety data sheets

Material safety data sheets can be requested via our website https://www.klsummit.com. You may also obtain them through your contact person at Summit Lubrication.

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Characteristics	DSL-32	DSL-46	DSL-68	DSL-100
Article number	340459	340029	340460	340461
Biodegradability, OECD 301 F, within, 28 days	≥ 60 %	≥ 60 %	≥ 60 %	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 54°C	40-40-0 (20) ml (min)	40-37-3 (30) ml (min)	40-37-3 (30) ml (min)	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	-	-	-	40-40-0 (20) (min)
Density, 20°C	-	approx. 0.962 g/cm³	approx. 0.958 g/cm³	approx. 0.953 g/cm³
Flash point, ASTM D92, Cleveland open cup	≥ 220 °C	≥ 240 °C	≥ 240 °C	≥ 250 °C
Foam test, ISO 6247 / ASTM D892, 24°C, sequence I	approx. 0/0 ml	approx. 0/0 ml	approx. 0/0 ml	≤ 50/0 ml
Foam test, ISO 6247 / ASTM D892, 24°C, sequence III	approx. 0/0 ml	approx. 0/0 ml	approx. 0/0 ml	≤ 50/0 ml
Foam test, ISO 6247 / ASTM D892, 93.5°C, sequence II	approx. 10/0 ml	approx. 0/0 ml	approx. 0/0 ml	≤ 50/0 ml
Ignition Point	407 °C	373 °C	approx. 407 °C	416 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 5.1 mm²/s	approx. 5.9 mm²/s	approx. 8.5 mm²/s	approx. 10.9 mm²/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 32 mm²/s	approx. 44 mm²/s	approx. 66 mm²/s	approx. 97 mm²/s
Viscosity index, ASTM D2270	approx. 77	approx. 63	approx. 98	approx. 95
Copper corrosion, ASTM D130, 24 h, 100°C	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree	-
Copper corrosion, DIN EN ISO 2160, 24 h, 100°C	-	-	-	1 - 100 - 24 corrosion degree
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -52 °C	approx. -48 °C	approx. -42 °C	approx. -39 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	60 months	36 months	60 months

Characteristics	DSL-125	DSL-150
Article number	340462	340028
Biodegradability, OECD 301 F, within, 28 days	-	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 54°C	-	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	43-37-0 (30) ml (min)	40-40-0 (30) ml (min)
Density, 20°C	approx. 0.954 g/cm³	approx. 0.951 g/cm³
Flash point, ASTM D92, Cleveland open cup	≥ 250 °C	≥ 250 °C

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Characteristics	DSL-125	DSL-150
Foam test, ISO 6247 / ASTM D892, 24°C, sequence I	≤ 50/0 ml	≤ 50/0 ml
Foam test, ISO 6247 / ASTM D892, 24°C, sequence III	≤ 50/0 ml	≤ 50/0 ml
Foam test, ISO 6247 / ASTM D892, 93.5°C, sequence II	≤ 50/0 ml	≤ 50/0 ml
Ignition Point	418 °C	418 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 13.4 mm^2/s	approx. 15.5 mm^2/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 125 mm^2/s	approx. 154 mm^2/s
Viscosity index, ASTM D2270	approx. 102	approx. 102
Copper corrosion, ASTM D130, 24 h, 100°C	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree
Copper corrosion, DIN EN ISO 2160, 24 h, 100°C	-	-
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -38 °C	approx. -36 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	60 months

Summit Lubrication

Your expert in specialty lubricants. Since 1982, we have partnered with you to bring you the right solution and advanced lubrication technologies. With over 500 products, from air and gas compressor oils to refrigeration oils, we develop top-of-the-line products tailored to your specific needs. Your success is our success.

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