Product information

HySyn® FGE Series

Synthetic hydraulic oil

Your benefits at a glance

- Absolute best solubility in a food grade hydraulic fluid
- Reduces sludge formation
- Excellent wear and anti-corrosion properties

Your requirements - our solution

Summit HySyn FGE Series are zinc-free ashless hydraulic oils formulated for use in hydraulic systems found in the Food & Beverage Industry (H1) usually in processing, beverage and packaging lines. HySyn FGE Series oils are fully synthetic and are produced in an ISO 21469 Certified Facility. They also carry Kosher Approval and Halal Certification.

HySyn FGE Series oils have been designed to offer the absolute best solubility that can be found in a food grade hydraulic fluid. The enhanced solubility allows hydraulic systems to operate cleaner by reducing sludge formation from contaminants being ingested into the oil. This solubility lets valves, actuators, pumps, and other key components of a hydraulic system operate smoothly with no jerking or slowed travel of valves. HySyn FGE Series oils are zinc-free ashless oils that are compatible with seal materials used in hydraulic systems. Excellent wear and anti-corrosion properties are also important characteristics of this series.

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.

Characteristics	HySyn FGE-22	HySyn FGE-32	HySyn FGE-46	HySyn FGE-68
Article number	340432	340433	340434	340435
NSF H1 registration number	156152	156153	156154	156155
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 54°C	40/40/0 (10) ml (min)	40/40/0 (10) ml (min)	40/40/0 (10) ml (min)	40/40/0 (15) ml (min)
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	-	-	-	-
Density, 20°C	approx. 0.836 g/cm³	approx. 0.843 g/cm³	approx. 0.847 g/cm³	approx. 0.851 g/cm³
Flash point, ASTM D92, Cleveland open cup	≥ 200 °C	≥ 225 °C	≥ 225 °C	≥ 225 °C
ISO viscosity grade	22	32	46	68
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 4.6 mm²/s	approx. 5.9 mm²/s	approx. 7.5 mm²/s	approx. 10.0 mm²/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 22 mm²/s	approx. 32 mm²/s	approx. 47 mm²/s	approx. 68 mm²/s
Viscosity index, ASTM D2270	approx. 127	approx. 127	approx. 128	approx. 129
Copper corrosion, ASTM D130, 24 h, 100°C	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree

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Characteristics	HySyn FGE-22	HySyn FGE-32	HySyn FGE-46	HySyn FGE-68
Steel corrosion, DIN ISO 7120 / ASTM D665, method A, 24 h, 60°C	rust-free	rust-free	rust-free	rust-free
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -62 °C	approx. -66 °C	approx. -59 °C	approx. -57 °C
Four-ball tester: wear characteristics, ASTM D4172, method: B, 1200 min^{-1} / 40 kgf, 60 min, 75°C	approx. 0.34 mm	approx. 0.34 mm	approx. 0.31 mm	approx. 0.31 mm
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 months	36 months	36 months

Characteristics	HySyn FGE-100
Article number	340436
NSF H1 registration number	156156
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 54°C	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	40/40/0 (10) ml (min)
Density, 20°C	approx. 0.852 g/cm^3
Flash point, ASTM D92, Cleveland open cup	≥ 225 °C
ISO viscosity grade	100
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 13.6 mm^2/s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 102 mm^2/s
Viscosity index, ASTM D2270	approx. 134
Copper corrosion, ASTM D130, 24 h, 100°C	1 - 100 - 24 corrosion degree
Steel corrosion, DIN ISO 7120 / ASTM D665, method A, 24 h, 60°C	rust-free
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -53 °C
Four-ball tester: wear characteristics, ASTM D4172, method: B, 1200 min^{-1} / 40 kgf, 60 min, 75°C	approx. 0.31 mm
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

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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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