

# HySyn® FG Series

Synthetic hydraulic oil



## Your benefits at a glance

- Fortified with oxidation and corrosion inhibitors
- Contains anti-wear additives
- Extended life lubricants

## Your requirements - our solution

Summit HySyn FG Series zinc-free ashless hydraulic oils are formulated specially for hydraulic systems operating in the food service, beverage, and packaging industry. These fully synthetic lubricants are NSF H1 Registered. HySyn FG Series lubricants are Kosher approved and Halal certified. Summit is an ISO 21469 certified facility.

HySyn FG Series lubricants are fortified with oxidation and corrosion inhibitors, as well as anti-wear additives to enhance the superior qualities offered by the synthetic hydrocarbon base stock. They are extended life lubricants and have the same excellent software compatibility as the Summit HySyn Series hydraulic oils.

HySyn FG-46 does not produce an iridescent appearance (sheen) on the surface of the water when tested in accordance with the U.S. Coast Guard Static Sheen Test.

## 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 FG-15	HYSYN FG-22	HYSYN FG-32	HYSYN FG-46
Article number	340474	340199	340468	340469
Service temperature, lower limit	-45 °C	-45 °C	-45 °C	-40 °C
Service temperature, upper limit	100 °C	120 °C	135 °C	135 °C
NSF H1 registration number	129191	171828	133733	133734
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)	42-38-0 (15) ml (min)
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	-	-	-	-
Density, 20°C	approx. 0.815 g/cm <sup>3</sup>	approx. 0.820 g/cm <sup>3</sup>	approx. 0.826 g/cm <sup>3</sup>	approx. 0.831 g/cm <sup>3</sup>
Flash point, ASTM D92, Cleveland open cup	≥ 187 °C	≥ 200 °C	≥ 230 °C	≥ 230 °C
Foam test, ISO 6247 / ASTM D892, 24°C, sequence I	≤ 150/10 ml	≤ 150/10 ml	≤ 150/10 ml	≤ 150/10 ml
Foam test, ISO 6247 / ASTM D892, 24°C, sequence III	≤ 150/10 ml	≤ 150/10 ml	≤ 150/10 ml	≤ 150/10 ml
Foam test, ISO 6247 / ASTM D892, 93.5°C, sequence II	≤ 75/10 ml	≤ 75/10 ml	≤ 75/10 ml	≤ 75/10 ml
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 3.5 mm <sup>2</sup> /s	approx. 4.5 mm <sup>2</sup> /s	approx. 5.8 mm <sup>2</sup> /s	approx. 7.8 mm <sup>2</sup> /s

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Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 15 mm <sup>2</sup> /s	approx. 22 mm <sup>2</sup> /s	approx. 31 mm <sup>2</sup> /s	approx. 46 mm <sup>2</sup> /s
Viscosity index, ASTM D2270	approx. 115	approx. 125	approx. 135	approx. 135
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
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -75 °C	approx. -73 °C	approx. -68 °C	approx. -62 °C
FZG scuffing test, DIN ISO 14635-1, A / 8.3 / 90, failure load stage	-	-	≥ 12	≥ 12
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe	Component of recipe	Component of recipe
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe	Component of recipe	Component of recipe
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	60 months	60 months

Characteristics	HYSYN FG-68	HYSYN FG-100
Article number	340470	340471
Service temperature, lower limit	-40 °C	-35 °C
Service temperature, upper limit	135 °C	135 °C
NSF H1 registration number	133735	133736
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 54°C	42-38-0 (20) ml (min)	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	-	40-40-0 (10) ml (min)
Density, 20°C	approx. 0.834 g/cm <sup>3</sup>	approx. 0.837 g/cm <sup>3</sup>
Flash point, ASTM D92, Cleveland open cup	≥ 240 °C	≥ 240 °C
Foam test, ISO 6247 / ASTM D892, 24°C, sequence I	≤ 150/10 ml	≤ 150/10 ml
Foam test, ISO 6247 / ASTM D892, 24°C, sequence III	≤ 150/10 ml	≤ 150/10 ml
Foam test, ISO 6247 / ASTM D892, 93.5°C, sequence II	≤ 75/10 ml	≤ 75/10 ml

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Characteristics	HYSYN FG-68	HYSYN FG-100
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 10.5 mm <sup>2</sup> /s	approx. 14.4 mm <sup>2</sup> /s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 69 mm <sup>2</sup> /s	approx. 104 mm <sup>2</sup> /s
Viscosity index, ASTM D2270	approx. 140	approx. 143
Copper corrosion, ASTM D130, 24 h, 100°C	1 - 100 - 24 corrosion degree	1 - 100 - 24 corrosion degree
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -59 °C	approx. -54 °C
FZG scuffing test, DIN ISO 14635-1, A / 8.3 / 90, failure load stage	≥ 12	≥ 12
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	Component of recipe	Component of recipe
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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