

# DHP-150, -220, -320, -680

## Synthetic Oil for Electric Submersible Pumps



### Your benefits at a glance

- Engineered formulation optimizes protection of electric submersible pumps
- Wide operating temperature range allows for exceptional performance above and below ground

### Your requirements - our solution

Summit DHP Series oils are formulated using the highest quality synthetic PAO base stocks and advanced additive technology available. We offer viscosities to cover a wide range of downhole operating temperatures: 150 cSt, 220 cSt, 320 cSt, and 680 cSt. The high viscosity index of the series ensures flow for above ground cold weather to below ground high temperature extremes. The unique additive package used in the DHP Series protects against ESP failure in the field. There are many reasons for pump failures, use of poor motor oils should not be one of them.

### Application

Summit's DHP Series lubricants are designed for use in downhole electric submersible pumps.

### Application notes

DHP series oils are compatible with commonly used sealing materials at elevated temperatures.

### 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	DHP-150	DHP-220	DHP-320	DHP-680
Article number	340593	340603	340604	340594
Demulsifying capacity	-	40/40/0 (10 min)	42/38/0 (20 min)	-
Demulsifying capacity, DIN ISO 6614 /ASTM D1401, 82°C	40/40/0 (15 min)	-	-	41/39/0 (50 min)
Density, 20°C	approx. 0.840 g/cm <sup>3</sup>	-	-	approx. 0.850 g/cm <sup>3</sup>
Density (from ERP-System)	-	0.84 g/cm <sup>3</sup>	0.84 g/cm <sup>3</sup>	-
Flash point	-	245 °C	240 °C	-
Flash point, ASTM D92, Cleveland open cup	≥ 225 °C	-	-	≥ 225 °C
Foam test	-	0/0, 10/0, 0/0 ml	0/0, 0/0, 0/0 ml	-
Foam test, ISO 6247 / ASTM D892, 24°C, sequence I	0/0 ml	-	-	0/0 ml
Foam test, ISO 6247 / ASTM D892, 24°C, sequence III	0/0 ml	-	-	0/0 ml
Foam test, ISO 6247 / ASTM D892, 93.5°C, sequence II	0/0 ml	-	-	0/0 ml
ISO viscosity grade	-	220	320	-
ISO viscosity grade, DIN ISO 3448, ISO VG	150	-	-	680
Kinematic viscosity, 100°C	-	28.7 mm <sup>2</sup> /s	38.8 mm <sup>2</sup> /s	-

# DHP-150, -220, -320, -680

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Characteristics	DHP-150	DHP-220	DHP-320	DHP-680
Kinematic viscosity, 40°C	-	223 mm <sup>2</sup> /s	325 mm <sup>2</sup> /s	-
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 100°C	approx. 20.9 mm <sup>2</sup> /s	-	-	approx. 69.0 mm <sup>2</sup> /s
Kinematic viscosity, DIN EN ISO 3104 / DIN 53000-1, based on standard / ASTM D445 / ASTM D7042, 40°C	approx. 153 mm <sup>2</sup> /s	-	-	approx. 677 mm <sup>2</sup> /s
Viscosity index	-	167	170	-
Viscosity index, ASTM D2270	approx. 160	-	-	approx. 177
Copper corrosion	-	1b - - corrosion degree	1b - - corrosion degree	-
Steel corrosion, method A, 24 h	-	passed	passed	-
Steel corrosion, method B, 24 h	-	passed	passed	-
Steel corrosion, DIN ISO 7120 / ASTM D665, method B, 24 h, 60°C	rust-free	-	-	rust-free
Pour point	-	-54 °C	-48 °C	-
Pour point, DIN ISO 3016, ASTM D97, ASTM D5950, ASTM D7346	approx. -54 °C	-	-	approx. -40 °C
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

### 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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