

Heat Transfer 200SP

Circulating and Quench Oil



Features & Benefits

- Excellent oxidation control
- Excellent quench acceleration
- Reduces reservoir maintenance
- Maintains clear heat transfer services
- Low volatility for minimum evaporation loss
- Circulates fast on cold starts

Specifications

■ Suitable for use

Specification	Heat Transfer 200SP (46)	Heat Transfer 200SP (57)
Fives P-55	■	-

Typical Results

Test Method	Heat Transfer 200SP (46)	Heat Transfer 200SP (57)
VISCOSITY (D445) cSt @ 40°C cSt @ 100°C	45.4 7.1	58.0 8.4
VISCOSITY INDEX (D2270)	115	116
DENSITY @ 15°C (D4052), (kg/L)	0.87	0.86
POUR POINT (D97), (°C)	-15	-15
FLASH POINT (D93), (°C)	235	240
FIRE POINT (D92), (°C)	287	289
BOILING POINT (D1120), (°C)	398.6	400.6
TOTAL ACID NUMBER (D664), (mg KOH/g)	0.14	0.15

Heat Transfer 200SP is specifically designed for maximum performance in closed circulating heat transfer systems equipped with an expansion tank and nitrogen blanket to prevent excessive oxidation that would otherwise occur when hot oil contacts atmospheric oxygen.

Heat Transfer 200SP oils are formulated with high-quality pure paraffinic mineral base oils with added rust and oxidation additives. They offer exceptional resistance to thermal cracking, formation of sludge and hard carbon deposits.

Heat Transfer 200SP oils were developed to provide high thermal efficiency and great fluidity allowing for faster circulation on start-up, which is particularly important for mobile systems such as portable asphalt plants.

Heat Transfer 200SP oils can operate at temperatures up to 316°C with a 57 grade or 300°C with a 46 grade. In open systems where contact with air cannot be avoided, the maximum operating temperature should be kept below 250°C.

Heat Transfer 200SP is formulated to provide fast quench times and deep hardening of parts with minimal cracking and distortion making it an excellent quenching oil.

Sizes & Order Codes

Size	Heat Transfer 200SP (46)	Heat Transfer 200SP (57)
205L / 54.2 US gal	F0091950	F0036950
BULK	B0091901	-

www.irvingoil.com/lubricants
1.800.574.5823

Always consult your owner's manual for verification of fluid type and grade!

Supporting data available to demonstrate acceptable performance. Check with your sales associate for latest product approvals.

Please note, these are typical performance indicators and can change without notice.

This data sheet replaces previous versions prior to October 20, 2022.

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Thermal Properties Typical Results

Test Method	Heat Transfer 200 SP (46)			Heat Transfer 200 SP (57)		
	THERMAL CONDUCTIVITY, LAMBDA mW/(m*K)	THERMAL DIFFUSIVITY nm ² /s	SPECIFIC HEAT CAPACITY kJ/(kg*K)	THERMAL CONDUCTIVITY, LAMBDA mW/(m*K)	THERMAL DIFFUSIVITY nm ² /s	SPECIFIC HEAT CAPACITY kJ/(kg*K)
-20°C	152.22	93.785	1.83	153.81	93.948	1.85
-10°C	150.63	92.131	1.85	151.39	92.206	1.87
0°C	148.52	90.434	1.87	149.10	90.488	1.89
10°C	147.10	88.807	1.90	147.42	88.834	1.92
20°C	145.17	87.136	1.93	146.19	87.234	1.95
30°C	144.92	85.627	1.97	145.88	85.720	2.00
40°C	142.85	83.955	1.99	144.16	84.080	2.03
50°C	141.20	82.333	2.02	142.53	82.430	2.06
60°C	140.10	80.761	2.06	140.97	80.840	2.09
70°C	138.04	79.109	2.09	139.46	79.220	2.12
80°C	136.53	77.509	2.12	137.51	77.580	2.15
90°C	134.79	75.899	2.16	135.64	75.960	2.19
100°C	133.69	74.644	2.20	134.21	74.370	2.23
110°C	131.87	72.737	2.23	132.62	72.790	2.26
120°C	130.20	71.144	2.27	130.97	71.190	2.30
130°C	127.69	69.498	2.30	129.32	69.610	2.34
140°C	125.89	67.910	2.34	127.41	68.020	2.38
150°C	124.11	66.330	2.38	125.67	66.430	2.42
160°C	122.91	64.797	2.43	123.80	64.860	2.46
170°C	121.00	63.220	2.47	122.18	63.300	2.51
180°C	119.19	61.655	2.51	120.51	61.730	2.56
MAX COOLING RATE, (D6200) (°C / sec)	83.1 @ 690.0°C			80.0 @ 692.5°C		
COOLING RATE @ 300 °C, (D6200) (°C / sec)	14.6			17.9		
S200 121C WITH PPT (D2893) KV Change @ 100°C after 312 hours (cSt)	0.30			-0.17		

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