

# Heat Transfer 200SP

## Circulating and Quenching Oil



### Features & benefits

- Excellent oxidation control
- Excellent quench acceleration
- Reduces reservoir maintenance
- Superior deposit control, keeping the system running clean
- Low volatility for minimum evaporation loss
- Circulates fast on cold starts



### Specifications

■ Suitable for use

Specification	HT SP200 (46)	HT SP200 (57)
Fives (Cincinnati) P-55	■	-

### Typical results

Test Method	HT SP200 (46)	HT SP200 (57)
<b>VISCOSITY (D445)</b> cSt @ 40°C	45.4	58.0
cSt @ 100°C	7.1	8.4
<b>VISCOSITY INDEX (D2270)</b>	115	116
<b>DENSITY @ 15°C (D4052), kg/L</b>	0.87	0.86
<b>POUR POINT (D97), °C</b>	-15	-15
<b>FLASH POINT (D93), °C</b>	235	240
<b>FIRE POINT (D92), °C</b>	287	289
<b>BOILING POINT (D1120), °C</b>	398.6	400.6
<b>MAXIMUM BULK TEMPERATURE, °C</b>	300	316
<b>TOTAL ACID NUMBER (D664), mgKOH/g</b>	0.14	0.15

Heat Transfer 200SP oils were 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 oils are 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	HT SP200 (46)	HT SP200 (57)
205 L (54.2 US gal)	F0091950	F0036950
Bulk	B0091901	-

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

Supporting data available to demonstrate acceptable performance. Check with Sales Associate for the latest product approvals.

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

This data sheet replaces previous versions prior to March 27, 2024.

[www.irvingoil.com/lubricants](http://www.irvingoil.com/lubricants) 1.800.574.5823

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Circulating and Quenching Oil



## Thermal Properties Typical Results

Test Method	Heat Transfer 200 SP (46)			Heat Transfer 200 SP (57)		
	THERMAL CONDUCTIVITY Y, LAMBDA mW/(m*K)	THERMAL DIFFUSIVITY nm <sup>2</sup> /s	SPECIFIC HEAT CAPACITY kJ/(kg*K)	THERMAL CONDUCTIVITY Y, LAMBDA mW/(m*K)	THERMAL DIFFUSIVITY nm <sup>2</sup> /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
<b>MAX COOLING RATE, (D6200) (°C / sec)</b>	83.1 @ 690.0°C			80.0 @ 692.5°C		
<b>COOLING RATE @ 300 °C, (D6200) (°C / sec)</b>	14.6			17.9		
<b>S200 121C WITH PPT (D2893) KV Change @ 100°C after 312 hours (cSt)</b>	0.30			-0.17		

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

Supporting data available to demonstrate acceptable performance. Check with Sales Associate for the latest product approvals.

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