

**HEAT TRANSFER OIL PLUS**

ISO Grades 22, 32, 46, 56, 68

**Product Description**

These premium heat transfer oils are formulated to meet the demanding service requirements of circulating heat transfer systems. Thermal stability is achieved by utilizing hydrocracked base stocks with excellent additive chemistry for outstanding oxidation resistance at sustained operating temperatures up to 600°F. The product is non-corrosive to steel and copper in closed systems resulting in long service life for both the fluid and equipment. Low volatility characteristics, especially ISO Grades 46, 56, & 68, reduce vapor lock in circulating pumps and diminish the possibility of system cavitation.

**Applications**

Recommended for heat exchangers, where a hot-oil medium is the energy transfer mechanism, i.e. asphalt plants, boiler systems, crude heating. It is suggested that the appropriate ISO Viscosity should be considered for individual applications based on system requirements. The recommended maximum temperature range is 600°F for closed systems and 400°F for open systems.

**Typical Properties**

| Property                         | ISO 22 | ISO 32 | ISO 46 | ISO 56 | ISO 68 |
|----------------------------------|--------|--------|--------|--------|--------|
| Viscosity, cSt @ 40°C            | 21.8   | 32.0   | 46.2   | 56.2   | 67.6   |
| Viscosity, cSt @ 100°C           | 4.3    | 5.4    | 6.8    | 7.7    | 8.7    |
| Viscosity Index                  | 103    | 102    | 101    | 100    | 100    |
| Flash Point, COC (°F)            | 400    | 405    | 440    | 450    | 480    |
| Pour Point (°F)                  | -10    | -5     | 0      | +5     | +10    |
| Specific Gravity                 | 0.8628 | 0.8665 | 0.8708 | 0.8735 | 0.8762 |
| Gravity, API @ 60°F              | 32.5   | 31.8   | 31.0   | 30.5   | 30.0   |
| Maximum Allowable Film Temp., F. | 575    | 600    | 630    | 690    | 750    |
| Ramsbottom Carbon Resid, %wt     | 0.05   | 0.05   | 0.06   | 0.06   | 0.07   |
| Fire Point, Deg F                | 440    | 475    | 510    | 525    | 550    |
| Properties @ 260C/500F           |        |        |        |        |        |
| Heat Capacity, BTU/lb/Deg F      | .660   | .659   | .657   | .656   | .655   |
| Viscosity, cSt                   | .77    | 1.10   | 1.34   | 1.51   | 1.82   |
| Vapor Pressure, mm/Hg            | 12     | 10     | 8      | 7      | 6      |

\*The values shown are typical of current production. Some are controlled in the manufacturing process while others are not. All of them may vary within tolerable ranges.