Synergy HTO Therma

Heat Transfer Oil

Highly refined, thermally stable paraffinic petroleum oil formulated for use as a heat transfer fluid in both closed and open transfer systems with forced circulation.

APPLICATIONS

- Open systems operating at temperatures up to 200°C
- Closed systems (sealed with cold oil or inert gas)
- For long, trouble-free service in closed systems, the maximum film temperature on the heater surfaces should be limited to 340°C
- Systems must have forced circulation of the heat transfer fluid

BENEFITS

- **Maximum energy efficiency**
  Excellent heat transfer properties enable easy circulation and efficient transfer of heat
- **Resists deposit formation**
  Outstanding oxidation and thermal stability resists formation of sludge and coke deposits, providing long oil service life
- **Rapid response at start-up**
  Low temperature flow characteristics allow prompt circulation
- **Economical low pressure operation**
  Low vapour pressure at elevated temperatures minimizes evaporation, vapour lock and pump cavitations, allowing efficient operation at lower system pressures avoiding the need for expensive high pressure piping and heat exchangers

KEY PROPERTIES

ISO VG Grade		32	46
Flash Point, COC, °C		212.0	224.0
Pour Point, °C		-12.0	-9.0
Viscosity	mm2/s @40°C	30.6	43.3
	mm2/s @100°C	5.3	6.65
Viscosity Index		102.0	99.0

Properties Values @ Temperatures	100°C	200°C	300°C	100°C	200°C	300°C
Density, Kg/L	0.82	0.76	0.69	0.83	0.77	0.70
Dynamic Viscosity, mPa.s	4.35	1.05	0.46	5.40	1.20	0.52
Specific Heat KI / Kg. °C	2.15	2.15	2.88	2.12	2.50	2.87
Thermal Conductivity, W/m °c	0.128	0.120	0.112	0.126	0.119	0.112
Vapour Pressure, mmHg	-	3.5	150.0	-	2.0	100.0

ENVIRONMENTAL, HEALTH & SAFETY

Environmental, Health & Safety Information of this product is available in Synergy Material Safety Data Sheet (MSDS). Customers are encouraged to review this information, follow precautions and comply with laws and regulations consuming product use and disposal. To obtain MSDS for this product, please contact Synergy Lubricant Technology Department.

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variations not exacting performance can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.