



SHELL THERMIA[®] OIL C

Heat transfer oil that resists oxidative degradation

Product Description

Shell Thermia[®] Oil C is a specially selected thermally stable mineral oil containing an anti-oxidant designed for heat transfer applications.

The thermal stability of heat transfer oil is a prime consideration. Nearly as important is the oxidation stability of the oil. While most hot oil units are designed to limit (or eliminate) contact of the circulating hot oil with air, some contact is inevitable at startup in the expansion tank during storage and from air leaks. The ability of **Shell Thermia[®] Oil C** to resist oxidative degradation has been demonstrated in tests simulating service conditions and confirmed by excellent performance in commercial applications.

Applications

- closed heat transfer systems found in asphalt plants, chemical plants and other processing installations where jacketed kettles are to be heated
- indirectly fired heat transfer systems where the primary heat source is located away from the equipment to be heated
- closely controlled temperature and flameless heating (such as liquid or vapor gaseous heat transfer) used with heat-sensitive or flammable materials
- temperatures as high as 600°F in low-pressure systems

Features/Benefits

- resistance to rust and oxidation
- excellent demulsibility
- long term thermal stability
- excellent filterability
- elimination of water-treatment chemicals and other disadvantages of water and steam systems

Shell Thermia® Oil C Design Data								
@ °F	100	200	300	350	400	450	500	550
Density ¹	0.87	0.83	0.79	---	0.76	---	0.72	---
Thermal Conductivity ²	0.08	---	0.07	---	---	---	0.07	---
Specific Heat ³	0.46	---	0.56	---	---	---	0.65	---
Vapor Pressure ⁴	---	---	0.1	0.5	1.7	5	15	35

1. gram/ml 2. BTU-ft/ft²-hr-°F 3. BTU/lb-°F, or cal/gm-°C 4. mm Hg.

Lowest starting temperature, °F

Centrifugal pump --- +20
 Gear pump --- +15

Recommended operating temperature, °F

Continuous operation --- 550
 Maximum --- 600

Typical Properties of Shell Thermia® Oil C

	Test Method	
Product Code		66622
Gravity, °API	D 1298	29.2
Density, lbs/gal, 60°F	D 1298	7.33
Color	D 1500	1.5
Viscosity:		
@ 0°C, cSt	D 445	800
@ 40°C, cSt	D 445	56
@ 100°C, cSt	D 445	7.2
Flash Point, COC, °F	D 92	450
Pour Point, °F	D 97	+5
Copper Corrosion	D 130	1b
Acid Number, mg KOH/g	D 974	0.01

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.