Mobiltherm 32

Heat Transfer Oil

Product Description

Mobiltherm 32 is a regular heat transfer fluid based on a solvent refined paraffinic oil and designed to cover a broad range of applications. Mobiltherm 32 is used for most conventional applications because of its relatively low viscosity and good heat transfer properties. The flash point of the oil will not decrease significantly in service because of its resistance to thermal cracking at the operating temperatures for which it is recommended. Mobiltherm 32 resistance to oxidation ensures prolonged service life without deposit formation or viscosity increase.

Features and Benefits

Mobiltherm 32 offers the following benefits:

Features	Advantages and Potential Benefits
Good thermal properties	High heat transfer rates for operation efficiency
Good thermal and oxidation stability	Prevention of deposit formation, viscosity increase or significant decrease in flash point ensures trouble free service and reduced downtime
Good low temperature fluidity and rather low viscosity	Easy starting of cold systems and high circulation efficiency in all weather conditions.

Applications

Application Considerations: Mobiltherm 32 should not be mixed with other oils since this may impair the thermal and oxidation stability of the oil, cause a change in other properties, and complicate the interpretation of analyses made to determine the oil's useful life. If the oil is used above its recommended maximum temperature, vapour lock may result unless the system is designed to operate at the higher temperature by pressurising with an inert gas such as nitrogen. However, at higher temperatures, fluid life will be shortened because the rate of thermal degradation increases markedly as temperatures rise above the recommended limit. In well-designed systems the temperature of the oil film surrounding the heating element should be about 15°C to 30°C above the bulk oil temperature. If higher than this, the service life of the oil may be shortened and sludge and coke may be deposited which would interfere with the heat transfer rates. As with other mineral oils, Mobiltherm 32 should be used only in systems with forced circulation. Systems that depend on convection for circulation of the heat transfer medium do not provide a rapid enough flow to prevent local overheating and rapid deterioration of the oil. If they spray or escape from leakage points, hot Mobiltherm 32 may spontaneously ignite.

Mobiltherm 32 heat transfer oil is used for most conventional heat transfer applications:

- Closed, cold-oil sealed, indirect heating and cooling systems in all kinds of industrial processes operating at bulk oil temperatures up to a maximum of 285°C and at atmospheric pressure
- Open systems provided the bulk temperature does not exceed 150°C.

- At higher temperatures, fluid life will be shortened because the rate of thermal degradation increases markedly as temperatures rise above the recommended limit.
- Mobiltherm 32 can be used in installations where minimum shutdown temperatures are not below -10°C.

Typical Properties

	Mobiltherm 32
Viscosity, ASTM D 445	
cSt @ 40°C	31
cSt @ 100°C	5.3
Pour Point, °C, ASTM D 97	-12
Flash Point, °C, ASTM D 92	230
Density @ 15°C, kg/l, ASTM D 1298, ASTM D 4057	0.871

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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