

HITHERM P

HIGH-QUALITY HEAT TRANSFER OILS

HITHERM P which has flash points above 250 °C is a mineral-oil-based heat transfer oil. Its excellent high-temperature oxidation stability and thermal stability ensure very long use with little sludge formation.

Indirect heating using heat transfer oils offers many advantages:

1. High temperatures can be obtained at low pressures.
2. An even heat can be obtained without hot or cold spots.
3. The temperature and amount of heat transferred can be controlled freely and precisely.
4. Both rapid heating and rapid cooling are possible.

With HITHERM P, all of these advantages can be obtained completely.

● SPECIAL FEATURES

1. Guaranteed Flash Points above 250 °C

HITHERM P has guaranteed flash points above 250 °C.

2. Outstanding Oxidative and Thermal Stability

The most important properties of a heat transfer oil are thermal stability and oxidation stability. If their performances were low, carbon and sludge formation might occur while heat transfer oils being circulated in pipes. Sludges adhered to pipe surfaces will decrease the heat transfer efficiency of the oil and oil circulation will be impaired.

Since materials that are unstable with respect to heat have been removed from HITHERM P with a special sophisticated refining process and other special additives have been blended into the oil, there is very little sludge formation even when the oil is used for long periods at high temperatures. Thus equipment operates smoothly with easy maintenance.

3. Low Volatility and Low Vapor Pressure

An oil with high evaporation loss during use is not suitable as a heat transfer oil.

HITHERM P has appropriate fractional distillation components, so there is little evaporation loss. Its low vapor pressure and the lack of

vapor blockage in the circulating system eliminate any worry about cavitation inside pumps.

4. Good Low-Temperature Flow Properties with Little Change in Viscosity

Since HITHERM P has a low pour point and good low temperature fluidity, it prevents partial overheating during low-temperature start-up.

5. Low Toxicity and Low Bad Smell

HITHERM P is low toxicity and low bad smell since it is carefully selected mineral oil type hydrocarbon.

6. High Heat Transfer Coefficients

HITHERM P has higher specific heat and thermal conductivity compared to the conventional mineral oils.

● APPLICATIONS

HITHERM P is not recommended for use in open systems where hot oil is exposed directly to the air. (Purging with inactive gas, such as nitrogen, is preferable.)

HITHERM P is recommended for use in closed, indirect heating and cooling systems at bulk oil temperatures up to a maximum of 260°C.

● CONTAINERS

200-liter drums and 20-liter cans

● TYPICAL PROPERTIES OF HITHERM P

		32	68	100
Color (ASTM)		L0.5	L0.5	L1.5
Density (15°C)	g/cm ³	0.839	0.863	0.886
Kinematic viscosity (40°C)	mm ² /s	35.9	68.9	110
Viscosity index		138	113	98
Flash point (COC)	°C	258	258	274
Pour point	°C	-17.5	-12.5	-12.5
Acid number	mgKOH/g	0.01	0.01	0.04
Copper strip corrosion (100°C,3h)		1	1	1

Note: The typical properties may be changed without notice. (March 2012)



Handling Precautions

▼ Follow these precautions when handling this product.

Composition :	Base Oil, Additives
Precautionary pictograms:	Not applicable
Signal word:	Not applicable
Hazard Statement:	Not applicable
Precautionary Statements:	<ul style="list-style-type: none"> • Do not handle until all safety precautions have been read and understood. • Wear protective gloves/protective clothing/eye protection/face protection. • Do not allow the eyes to become exposed to the product. Do not swallow the product. • Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product.
Response	<ul style="list-style-type: none"> • IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. • IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. • If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician. • IF ON SKIN: Wash with plenty of soap and water.
Storage	<ul style="list-style-type: none"> • The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight. • Containers that have been opened must be tightly sealed.
Disposal	<ul style="list-style-type: none"> • Dispose of contents/container in accordance with local/regional/national/international regulations. • If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.