

## Product Data

### ZIE THERMO M HT 5000 Premium Heat Transfer Fluid

#### Description:

Zie Thermo M HT 5000 is heat transfer fluids formulated using highly refined paraffinic oils with high viscosity index. These oils possess exceptional oxidation stability, high thermal conductivity and adequate specific heat to facilitate effective heat transfer. Mineral oils are generally preferred for use in heat transfer systems operating with temperatures ranging from 270 °C to 310 °C. In the operation, the heat transfer fluid is pumped to the tube furnace, gets heated and this hot oil is then passed through the process vessels from where it is conveyed back to the pump. An expansion tank of suitable design is connected to the suction side of the pump to take care of the variation in the volume. Ziel Heat Transfer Fluids have the correct viscosity; hence they are able to yield optimum heat transfer rates from well-designed systems.

#### Applications:

Zie Thermo M HT 5000 is recommended for use in heat transfer systems operating with bulk oil temperature up to 280 °C. Zie Thermo M HT 5000 provides superior performance due to its low Sulphur content and CCR value and is recommended for operating at temperature up to 300 °C. Ziel heat transfer fluids also function as lubricants for circulating pumps.

#### Advantages:

The properties of Zie Thermo M HT 5000 include low volatility and the absence of high pressure, which facilitates efficient compact units and associated space savings. Due to high boiling point they can be used without pressurization at maximum bulk temperature. These oils also generate the least amount of oxidation by-products and reduce oil change periods. There is also lower evaporation loss, and consequently a smaller difference to make up for, in oil volumes. Their low viscosity and excellent pumpability ensure lower power consumption.

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**Typical characteristics:**

<b>Characteristics</b>	<b>Test Method</b>	<b>Zie Thermo M HT 5000</b>
Appearance	Visual	Bright and clear
Colour, max.	ASTM D 1500	< 1
Kinematic viscosity, cSt at 40 °C	ASTM D 445	35
Viscosity index, min.	ASTM D 2270	100
Flash point (COC), °C, min.	ASTM D 92	220
Ignition temperature °C	-	>350
Initial boiling point °C	ASTM D 1160	363
Final boiling point °C	ASTM D 1160	442

The above figures are typical figures with normal production tolerance.

**Health & Safety**

These oils are unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained.



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