



## POWER THERM PREMIUM HEAT TRANSFER OILS

POWER THERM 500 and 600 are premium quality mineral oil based heat transfer fluids formulated from best in class solvent refined base stocks.

POWER THERM 500 and 600 are derived from the finest quality of base stocks and contains selected antioxidants. Due to their high specific heat and better thermal conductivity at all temperatures, these provide rapid heating and greater flexibility in heat transfer systems.

CHARACTERISTICS	POWER THERM	
	500	600
Appearance	Clear	Clear
Colour	<0.5	<0.5
Density @29.5 °C	0.848	0.847
Kinematic Viscosity, cSt, @ 40°C	31	31.5
@ 50°C	21.19	21.29
@ 100°C	5.44	5.4
@ 200°C	1.419	1.415
@ 300°C	0.6995	0.6986
Viscosity index, min.	107	108
Flash point, Open, °C, min	216	218
Flash point, Closed, °C, min	212	214
Fire point °C	232	234
Pour point, °C, max	- 15	-15
TAN, mg KOH/g. max.	0.01	0.01
Spontaneous ignition temperature °C	>350	>350
Initial boiling point °C	362	367
Final boiling point °C	440	442
CCR Wt %	<0.02	<0.02
Max film temperature °C	320	340
Coefficient of thermal expansion (1/°C) @ 15°C	0.00078	0.00078
Specific Heat Kcal/ Kg °C		
260 °C	0.657	0.659
280 °C	0.673	0.679
300 °C	0.68	0.683
Thermal Conductivity Kcal/ hr- mt °C		
260 °C	0.094	0.0993
280 °C	0.091	0.098
300 °C	0.090	0.0967

### APPLICATION:

APPLICATION : Powertherm oils are suitable for direct and secondary heating in conventional heat transfer operations in Textile, Pharmaceutical, Chemical and Processing Industries. Powertherm 500 is recommended for use in heat transfer systems operating with bulk oil temperature up to 300°C. Due to its high specific heat and better thermal conductivity at all temperatures, this oil provides rapid heating and greater flexibility in heat transfer systems. Powertherm 600 provides superior performance on account of its low sulphur content and CCR value and is recommended for well designed heat transfer systems operating with bulk temperature up to 320°C

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## ADVANTAGES OF USING MINERAL OIL:

- 1 Mineral oils have high boiling point and therefore can be used without pressurization at maximum bulk temperature.
- 2 Absence of high pressure facilitates efficient compact units and associated space savings.
- 3 Low volatility.

## PERFORMANCE BENEFITS :

Long and trouble free service life in a well designed heat transfer systems due to high thermal and oxidation stability.  
Excellent heat transfer medium due to high specific heat and good thermal conductivity, which enables more flexibility in heat transfer systems.  
Efficient performance in wider range of temperatures.  
Free from toxicity and obnoxious odour.

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