

PRODUCT & TECHNICAL DATA

PERFECTO HT5 Heat Transfer Oil

DESCRIPTION

Castrol Perfecto HT 5 is based on a solvent refined, high viscosity index mineral oil specially selected for its high thermal and oxidation stability.

FEATURES/BENEFITS

Whilst the viscosity of Castrol Perfecto HT 5 is relatively low, its boiling and flash points are high, making an ideal combination for use in modern closed heat transfer systems for which it was primarily designed. A low viscosity fluid is essential when operating under turbulent flow conditions to achieve very high heat transfer rates. When used in modern closed systems under controlled conditions, the maximum recommended bulk-oil temperature is 320°C.

Design for high heat transfer rates necessitates the use of a relatively low viscosity oil, under turbulent flow conditions, to minimise the static film thickness and temperature differential. High fluid flow rates (e.g. 3m/s at 320°C) are required, and are readily achieved with **Castrol Perfecto HT5**.

TECHNICAL DATA

Typical Characteristics	Method	Perfecto HT 5
Density @ 15°C, kg/ltr	IP 160	0.868
Viscosity @ 40°C, cSt	IP 71	30.5
Viscosity @ 100°C, cSt	IP 71	5.28
Viscosity Index	IP 226	106
Pour Point, °C	IP 15	-9
Colour	IP 196	2.0
Flash Point PMCC, °C	IP 34	210
Flash Point COC, °C	IP 35	220
Fire Point, °C	IP 35	249
Auto-Ignition Temperature, °C	ASTM D1255	357
Neutralisation Value, mgKOH/g	IP 1A	<0.05
Specific heat @ 15°C, kJ/kg, °C		186
Maximum film temperature, °C		>340
Thermal Conductivity @ 15°C, W/m, °C	ASTM D1160	0.133
Distillation Range		
Initial Boiling Point, °C		343
10% distilled @, °C		390
90% distilled @, °C		454
Thermal Expansion coefficient per °C @ 15°C		0.00077

