



Perfecto™ HT 5

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.

Application

Perfecto HT 5 is primarily intended for use in closed heat transfer systems with bulk temperatures up to 320°C. and a maximum film temperature of 340°C. It can also be used in open systems at much lower bulk oil temperatures.

Before being commissioned the system should be assessed to determine if treatment with a system conditioner such as Castrol Cyltech 70 is needed help dislodge and clean any deposits before draining the oil. Once the oil is drained from the system the system requires a flush with Perfecto HT 5. This flush serves to remove any remaining deposits and clean out the system conditioner completely from the system. Once this flush oil is drained and discarded then the system is ready for charging with fresh Perfecto HT 5 ready for operation. For further information on change out of heat transfer systems please contact the Castrol Technical Helpline.

Despite the excellent oxidative stability of Caastrol Perfecto HT 5, precautions must be made to minimise exposure of hot oil to the air. This exposure often occurs in the expansion tank. Ensure the temperature of the oil in the expansion tank does not exceed 60°C.

Perfecto HT 5, because of its solvency and high thermal stability serves as excellent Turbine Flushing oil.

Advantages

- Tightly controlled specification helps minimise deposits in heat exchangers in order to maintain heat transfer efficiency
- High operating temperature capability in closed systems with temperatures up to 320°C permitted
- Ease of circulation even when a system is started from cold
- Contains all essential characteristics to ensure a long and trouble free service.

Typical Characteristics

Name	Method	Units	Perfecto HT 5
Density at 15°C	ISO 12185 / ASTM D4052	kg/m ³	870
Kinematic Viscosity at 40°C	ISO 3104 / ASTM D445	cSt	30.5
Kinematic Viscosity at 100°C	ISO 3104 / ASTM D445	cSt	5.28
Viscosity Index	ISO 2909 / ASTM D2270	-	>100
Pour Point	ISO 3016 / ASTM D97	°C	-12
Flash Point - closed cup method	ISO 2719 / ASTM D93	°C	210
Flash Point - open cup method	ISO 2592 / ASTM D92	°C	220
Fire Point	ISO 2592 / ASTM D92	°C	249
Colour	IP 196		2.0
Neutralisation Value	ISO 6618 / ASTM D974	mgKOH/g	<0.05
Specific Heat at 15°C	ASTM D2766	kJ/kg, °C	1.86
Thermal Conductivity at 15°C	ASTM D2717	W/m°C	0.133
Distillation Range Initial Boiling Point	-	°C	343
Distillation Range 10% distilled at	-	°C	390
Distillation Range 90% distilled at	-	°C	454
Co-efficient of Thermal Expansion	ASTM D1903	-	0.00077

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C exposed to hot sun or freezing conditions.

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