Product Data

# Perfecto HT 5

## Heat Transfer Oil

### DESCRIPTION

**Castrol Perfecto HT 5** is based on mineral oil, selected for their high thermal stability.

### APPLICATIONS

This oil is primarily intended for use in enclosed and sealed systems. It also has applications, at lower maximum temperatures, in systems open to the air. It is now customary to design heat transfer systems for operation under turbulent flow conditions in the heat exchanger unit, since very high rates of heat transfer can then be obtained.

### BENEFITS

#### OXIDATION RESISTANCE

Sealed Systems:
Oxidation resistance is not involved.

Enclosed Systems:
Oxidation by air must be minimised. In the usual layout of heat transfer equipment the only oil/air interface is in the oil header tank, where the oil is relatively cool and the area of the exposed oil surface is limited: in addition, inert gas blanketing is often used. Although the inherent oxidation stability of these oils is high, it should be realised that the working life of the oil depends to a considerable extend on the effectiveness of the measures taken to exclude air.

Open Systems:
Because of the effect of oxidation the life of any mineral oil in an open system declines rapidly at temperatures beyond the region of 100°C. Therefore, a reduced service life must be expected for these oils at higher temperatures in open systems.

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**THERMAL STABILITY (in enclosed systems)**

Whilst the maximum bulk temperature is 300°C (Perfecto HT 5 which can be increased to 320°C when used in, modern systems under carefully controlled conditions) care should be taken to avoid film temperatures in excess of 340°C.

## TYPICAL DATA

| PERFECTO | HT 5 |
|---|---|
| Density @ 15°C | 0.873 |
| Viscosity @ 40°C, cSt | 34.40 |
| Viscosity @ 100°C, cSt | 5.49 |
| Viscosity Index | 105 |
| Flash Point (PMCC) °C | 207 |
| Fire Point °C | 249 |
| Spontaneous Ignition Temperature °C | 438 |
| Coeff. of Thermal Conductivity KCal/mh°C | 0.114 |
| Specific Heat @ 25°C KCal/Kg | 0.453 |

***THIS DATA SHEET DOES NOT CONSTITUTE A CONTRACT IN TERMS OF PROPERTIES***