Product Data

Perfecto HTS 16

Synthetic Heat Transfer Fluid

Description

Perfecto™ HTS 16 is a high-temperature synthetic heat transfer fluid. It has a higher thermal stability than conventional mineral oil heat-transfer fluids, and thus can be used at bulk temperatures up to approximately 20°C / 68°F higher. It has low vapour pressure, high specific heat and high thermal conductivity.

Application

Perfecto HTS 16 is recommended specifically for use in non-pressurized liquid-phase systems that operate at bulk fluid temperatures in the range 320°C - 350°C / 608°F - 662°F, and at maximum film temperature of 374°C / 705°F. (In systems where the bulk temperatures are below 320°C / 608°F, the mineral-based Perfecto HT 5 may be used). Where the expansion-tank temperature exceeds 50°C / 122°F a nitrogen blanket should be employed, to minimize oxidation of the fluid.
Before being commissioned, the system should be pressure-tested for leaks and thoroughly flushed through with Perfecto HTS 16. Under no circumstances should water be used. When the system has become clean, the flushing charge should be drained off and the system filled with Perfecto HTS 16. Careful venting should be carried out while the fluid's temperature is being raised, to remove all air and moisture from the system.

Advantages

-Excellent heat-transfer properties, that can be maintained over long periods of time.
-Very good thermal stability, allowing the fluid to be used at bulk-fluid temperatures of up to 350°C / 662°F.

Typical Characteristics

Name	Method	Units	HTS 16
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m³	1033
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	14.5
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	2.84
Pour Point	ISO 3016 / ASTM D97	°C/°F	<-21/ <-5
Flash Point - closed cup method	ISO 2719 / ASTM D93	°C/°F	194 / 381
Autoignition temperature	ASTM E659	°C/°F	385 / 725
Specific Heat Capacity (at 200°C / at 350°C)	-	kJ/kg.K	2.16 / 2.60
Thermal Conductivity (at 200°C / at 350°C)	-	W/m.K	0.108 / 0.089
Molecular Weight (Average)	-	g/mol	236
Boiling Point	-	°C/°F	353 / 667

Subject to usual manufacturing tolerances.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

www.castrol.com/industrial