Thermic Fluid

Product Information and Data Sheet

Hi-Tech THERM 66

HYDROGENATED TERPHENYLS BASE THERMIC FLUID

Product Description

Hi-Tech Therm 66 /Schultz® S750 synthetic heat transfer fluid offers outstanding high temperature performance up to 350 ºC(662 ºF), including excellent thermal stability & low vapor pressure.These properties result in reliable, consistent performance of heat transfer systems over long periods of time.

Physical and Chemical Properties

Hi-Tech Therm 66 /Schultz®S750 is a hydrogenated Terphenyls base thermic fluid. It is designed for use in non pressurized/ low-pressure,indirect heating systems. It delivers efficient, dependable, uniform process heat with no need for high pressures. The high boiling point of Hi-Tech Therm 66 helps to reduce the volatility and fluid leakage problems. It can be operated in temperature range of -7°C to 350°C.

Application

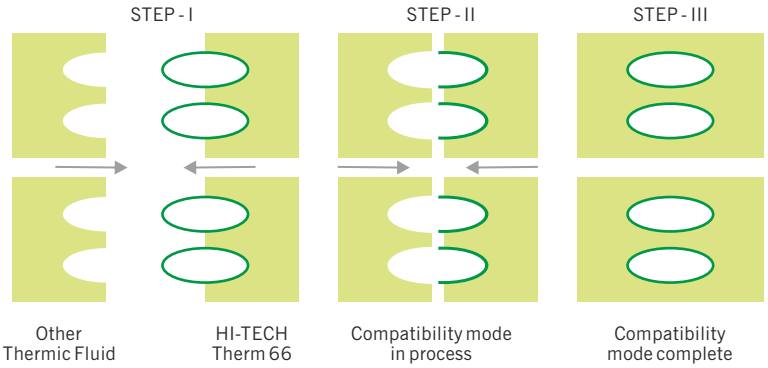
Hi-Tech Therm 66 /Schultz® S750 is a stable, ultra-high-temperature synthetic heat transfer fluid, which is utilized in polymerization, polycondensation, polyester, nylon and synthetic fiber processing. In these industries, the use of Thermic fluid is 70% globally.

Features

It's ultimate molecular structure having ultra long life can ensure effective production, reduce breakdowns, decrease maintenance time and lower operating costs. The ultra-high-temperature Hi-Tech Therm 66 /Schultz® S750 heat transfer fluid that is popular among client because of minimum formation of low boilers under controlled working condition thus it is characterized by ultra long life, renewable material and lower operating cost, which can meet your requirement for sustainable development.

Compatibility Process With Other Thermic Fluid

Hitech therm 66 /Schultz® S750 is Hydrogenated modified Terphenyl base Thermic fluid and can be mixed with other terphenyl base fluid. Mixing of oil will not give any adverse effect on viscosity, vapor pressure and any physical parameter.



Thermic Fluid

HITECH SOLUTION
SPEED INNOVATION EXCELLENCE

Hi-Tech THERM 66

HYDROGENATED TERPHENYLS BASE THERMIC FLUID

Typical Properties

Appearance	Light yellow liquid
Composition	Hydrogenated modified terphenyl
Maximum bulk temperature	350°C
Maximum film temperature	380°C
Normal boiling point	359°C
Pumpability, at 300 mm2 /s (cSt)	11°C
Pumpability, at 2000 mm2/s (cSt)	–3°C
Flash point, COC (ASTM D-92)	199°C
Flash point, PMCC (ASTM D-93)	175°C
Autoignition temperature (ASTM E-659)	382°C
Kinematic viscosity (mm2/s) 40°C	29 cSt
Kinematic viscosity (mm^2/s) 100°C	4 cSt
Pour Point (ASTM D-97)	-4°C

Density (20°C) kg/m^3	1017
Carbon Residue Percent	0.01%
Coefficient of thermal expansion at 200°C	0.000819/°C
Total acidity (ASTM D-664)	<0.01 mg KOH/g
Average molecular weight	252
Pseudocritical temperature	569°C
Pseudocritical pressure	24 bar
Pseudocritical density	317 kg/m (19.8 lb/ft^3)
Chlorine content, ppm (DIN 51577)	<10 ppm
Copper corrosion (ASTM D-130)	< 1a
Moisture content, maximum (ASTM E-203)	150 ppm
Dielectric constant @23°C (ASTM D-924)	2.61

Liquid Properties of of Hi-Tech Therm 66 with respect to Temperature

Temperature °C	Specific Heat kj/kg°K	Density kg/m^3	Liquid Viscosity cSt	Liquid Thermal Conductivity W/m.°K	Vapor Pressure kPa
-7	1.470	1027	4050	0.1239	-
0	1.495	1020	1299	0.1230	-
10	1.530	1015	432.8	0.1221	-
20	1.563	1008	98.34	0.1212	-
30	1.596	1001	49.89	0.1203	-
40	1.630	995	30.39	0.1194	-
50	1.663	988	17.44	0.1185	-
60	1.697	981	11.60	0.1177	-
70	1.732	975	8.16	0.1168	-
80	1.766	968	6.01	0.1159	-
90	1.801	961	4.60	0.1150	-
100	1.836	955	3.63	0.1141	0.059
110	1.871	948	2.94	0.1133	0.063
120	1.907	941	2.43	0.1124	0.076
130	1.942	935	2.05	0.1115	0.092
140	1.978	928	1.75	0.1106	0.157
150	2.015	921	1.52	0.1098	0.382
160	2.051	910	1.3	0.1089	0.618
170	2.088	903	1.15	0.1080	0.922
180	2.125	896	1.02	0.1071	1.230

Temperature °C	Specific Heat kj/kg°K	Density kg/m^3	Liquid Viscosity cSt	Liquid Thermal Conductivity W/m.°K	Vapor Pressure kPa
190	2.162	889	0.91	0.1062	1.580
200	2.200	882	0.83	0.1054	2.540
210	2.238	875	0.75	0.1045	3.800
220	2.276	868	0.69	0.1036	5.370
230	2.314	861	0.64	0.1027	6.690
240	2.353	854	0.59	0.1019	7.690
250	2.392	847	0.55	0.1010	8.980
260	2.431	840	0.52	0.1001	11.69
270	2.470	828	0.49	0.0992	15.59
280	2.510	821	0.46	0.0983	20.20
290	2.550	814	0.44	0.0975	26.18
300	2.590	806	0.41	0.0966	33.73
310	2.630	799	0.39	0.0957	39.42
320	2.671	792	0.37	0.0948	46.58
330	2.712	785	0.35	0.0940	61.49
340	2.753	774	0.34	0.0931	68.35
350	7.795	767	0.32	0.0922	84.04
360	2.836	753	0.31	0.0913	100.0
370	2.878	746	0.30	0.0904	108.0

Generation Four Engitech Ltd
Mumbai Roorkee Jodhpur Balotra

Customer Care : 9214048657
Email : en@hitechsolution.co.in
www.hitechsolution.co.in