sigma THERM® - K

(-30) °C TO 320 °C

High Temperature
Synthetic Heat Transfer Fluid

www.sigma-therm.com

Description:

sigma THERM®- K is a synthetic heat transfer fluid.

Application :

Indirect closed heat transfer systems : up to 320 °C
For better life it should be used up to : 300 °C

Benefits :

- High Thermal Stability
- High Oxidation Stability
- Minimal carbon deposits.
- Extended operational lifespan.
- Reduced formation of "Low Boilers" and "High Boilers."

Special Note :

sigma THERM®- K features lower viscosity than other thermic fluids, reducing pump power consumption while providing a higher heat transfer coefficient for enhanced efficiency.

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Mixability :

sigma THERM®- K has been thoroughly tested in the laboratory with different proportionate of other thermic fluid at various high temperatures for stability and other related parameters.

Based on results it is proved that sigma THERM®- K could be used for top-up purpose in the systems already containing mineral based thermic fluids or Synthetic based thermic fluid.

Compatibility :

Metal : sigma THERM®- K is compatible with all metals.

Typical Properties :

Base oil	100 % Synthetic
Appearance	Bright Yellow Liquid
Max. Bulk Temperature	320 °C
Kin. Vis. @ 40 °C	19 - 23 cSt
Specific Gravity @ 15 °C	0.86 ± 0.01
Flash Point (COC)	200 - 240 °C
Fire Point	220 - 260 °C
Pour point	< (-40) °C
Moisture content	50 – 100 ppm
Total Acid No	<0.01 mg KOH/g
Auto Ignition Temperature	> 375 °C

Packing :

210 Ltrs, 35 Ltrs

Temperature	Density	Specific Heat	Thermal Conductivity	Kinematic Viscosity	Vapour Pressure
°C	Kg/m³	kJ/Kg °K	W/m·K	cSt	kPa
-30	893	1.754	0.135	2100	-
-20	890	1.795	0.134	849	-
-10	883	1.836	0.133	349	-
0	876	1.867	0.132	164	-
10	869	1.907	0.131	84.8	-
20	863	1.948	0.130	48.2	-
30	856	1.979	0.129	29.49	-
40	849	2.020	0.127	19.19	-
50	843	2.050	0.126	13.23	-
60	837	2.091	0.125	9.48	-
70	830	2.122	0.124	7.09	-
80	823	2.162	0.123	5.48	0.01
90	817	2.203	0.122	4.36	0.02
100	810	2.234	0.120	3.56	0.03
110	803	2.275	0.119	2.96	0.05
120	796	2.305	0.118	2.51	0.09
130	789	2.346	0.117	2.16	0.1
140	782	2.377	0.116	1.89	0.2
150	776	2.417	0.114	1.67	0.3
160	769	2.448	0.113	1.48	0.5
170	762	2.489	0.112	1.33	0.7
180	755	2.519	0.111	1.21	1.1
190	747	2.560	0.110	1.10	1.5
200	741	2.591	0.108	1.01	2.1
210	734	2.632	0.107	0.93	3
220	727	2.662	0.106	0.86	4
230	719	2.703	0.105	0.80	5
240	712	2.734	0.104	0.74	7
250	704	2.774	0.103	0.69	10
260	697	2.805	0.101	0.65	13
270	689	2.846	0.100	0.61	16
280	681	2.887	0.099	0.57	21
290	673	2.917	0.098	0.53	27
300	665	2.958	0.097	0.50	34
310	656	2.989	0.095	0.47	43
320	648	3.029	0.094	0.45	53

Note : Above data is for reference only

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