

sigma THERM[®] - X

(-40) °C TO 200 °C

Single Fluid for
Heating and Cooling



Description:

sigma THERM®- X is a Heat Transfer Fluid used in Single Fluid Heating and Cooling applications based on carefully formulated Alkylated Aromatics.

Application :

Indirect closed heat transfer systems : (- 40) °C to 200 °C
 Without pressurization : up to 120 °C
 With proper pressurization : up to 200°C.

This single fluid caters the dual demand heating and cooling in Pharmaceutical, Fine Chemicals and other industries.

Benefits :

- Simplifies by eliminating multiple fluids for heating and cooling.
- Engineered for Longevity and lasting performance.
- Cost optimised Solution for maximum value.
- Effortless operations with minimum maintenance.
- It serves as a superior alternative to conventional dual steam & glycol or steam & brine systems.

Compatibility :

Gasket Material : **sigma THERM®- X** has an acceptable compatibility when used within the temperature and pressure limitation of the following polymers or gasketing materials:

Acetal, Aramid Fiber, Chemraz (FFKM), Epoxy, Fluorocarbon (FILM), Fluoroelastomer, Glass Fiber, Gylon, Kalrez, PEEK, PTFE, Teflon (All) , PTFE Silicon, PTFE Viton, PTFE Fiberglass, Kel-F (CTFE), Viton

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

Typical Properties :

Composition	Mixture of Synthetic Alkylated Aromatics
Appearance	Clear to Light Yellow
Max. Bulk Temperature, °C	200
Max. Film Temperature, °C	220
Kin. Vis. @ 40 °C , cSt	0.9
Pour Point, °C	Below (-50)
Specific Gravity @ 20 °C	0.865
Auto Ignition Temp. °C	Above 410
Initial Boiling Point °C	140
Flash Point °C	25

Packing :

210 Ltrs

Temperature	Density	Specific Heat	Thermal Conductivity	Kinematic Viscosity	Vapour Pressure
°C	Kg/m ³	kJ/Kg °K	W/m·K	cSt	kPa
-40	914	1.6354	0.1448	3.36	-
-30	906	1.6662	0.1418	2.61	-
-20	898	1.6970	0.1397	2.10	-
-10	890	1.7277	0.1377	1.74	-
0	882	1.7585	0.1357	1.46	-
10	874	1.7893	0.1326	1.28	-
20	866	1.8201	0.1306	1.11	1.21
30	858	1.8508	0.1285	0.98	1.92
40	850	1.8816	0.1265	0.89	3.13
50	841	1.9124	0.1234	0.79	4.74
60	833	1.9431	0.1214	0.72	7.16
70	825	1.9739	0.1193	0.65	10.6
80	817	2.0047	0.1173	0.60	15.4
90	809	2.0355	0.1142	0.23	21.9
100	801	2.0662	0.1122	0.52	30.5
110	793	2.0970	0.1102	0.48	41.8
120	785	2.1278	0.1081	0.45	56.5
130	777	2.1585	0.1051	0.42	75.3
140	769	2.1893	0.1030	0.40	99.1
150	760	2.2201	0.1010	0.38	129
160	752	2.2509	0.0979	0.35	165
170	744	2.2816	0.0959	0.34	210
180	736	2.3124	0.0938	0.32	264
190	728	2.3432	0.0918	0.31	329
200	720	2.3740	0.0887	0.29	407

Note : Above data is for reference only

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