

FRAGOLTHERM® X-75-A

Heat Transfer Fluid
-40 °C up to 400 °C

Application

FRAGOLTHERM® X-75-A is designed as a heat transfer fluid for application in high temperature processes. The product can be used in a liquid phase in a temperature range of between -40 °C and 400 °C.

FRAGOLTHERM® X-75-A tolerates occasional temperature peaks without significant change to the physical characteristics.

Quality

FRAGOLTHERM® X-75-A is a synthetic heat transfer fluid based on specially modified polydimethylsiloxane.

In comparison to organic heat transfer media, FRAGOLTHERM® X-75-A exhibits outstanding stability in the high temperature range. FRAGOLTHERM® X-75-A can achieve a service life of over 10 years at 400 °C, without the occurrence of the familiar problems experienced with other heat transfer fluids, such as carbonisation or freezing point changes. Because there is no risk of carbonisation, when calculating heat transfer coefficients larger correction factors are superfluous.

FRAGOLTHERM® X-75-A is almost odourless and is characterised by low toxicity.

Packaging

FRAGOLTHERM® X-75-A is available as standard in steel drums and pails.

Note

Please expressly note that it is possible in general terms, when using heat transfer fluids (also below the maximum specified bulk temperature), that low and high-boiling substances may arise due to thermal or oxidative decomposition.

When handling the product it is essential to observe the safety data sheet.

Please get in touch with us if you require further information or general technical advice.

Properties

FRAGOLTHERM® X-75-A		Method
Density @ 25 °C	[kg/m³]	932
Viscosity @ 40 °C	[mm²/s]	7.63
Thermal capacity @ 25 °C	[kJ/kgK]	1.62
Thermal conductivity @ 25°C	[W/mK]	0.13
Pourpoint	[°C]	-60 ISO 3016
Flashpoint	[°C]	177 ISO 2592
Boiling point @ 1013 mbar	[°C]	>200 DIN 51356
Film temperature max.	[°C]	430
Bulk temperature max.	[°C]	400
Hazardous substance according to IATA/IMDG/ADR	[-]	no

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FRAGOL THERM[®] X-75-A

Temp. °C	Vapor Press. kPa (abs)	Density kg/m ³	Heat Capacity kJ/kgK	Thermal Cond. W/mK	Visc. (kin) mm ² /s	Visc. (dyn) mPas	Prandtl- Number
-40		992	1.51	0.146	51.6	51.2	529
-30		982	1.52	0.144	36.1	35.5	374
-20		973	1.54	0.142	26.6	25.9	281
-10		964	1.56	0.141	20.4	19.7	218
0		954	1.58	0.139	16.1	15.4	175
10		945	1.59	0.137	13.0	12.3	143
20		936	1.61	0.135	10.7	10.0	119
30		927	1.63	0.133	8.99	8.33	102
40		918	1.64	0.131	7.63	7.00	87.7
50		909	1.66	0.129	6.56	5.96	76.7
60		901	1.68	0.127	5.69	5.13	67.8
70	1	892	1.69	0.126	4.97	4.43	59.5
80	1	883	1.71	0.124	4.38	3.87	53.3
90	2	874	1.73	0.122	3.88	3.39	48.1
100	4	865	1.75	0.120	3.46	2.99	43.6
110	6	856	1.76	0.118	3.10	2.65	39.6
120	9	847	1.78	0.116	2.79	2.36	36.3
130	13	839	1.80	0.114	2.52	2.11	33.4
140	19	830	1.81	0.112	2.28	1.89	30.6
150	26	821	1.83	0.111	2.08	1.71	28.2
160	35	811	1.85	0.109	1.90	1.54	26.2
170	46	802	1.87	0.107	1.74	1.40	24.4
180	60	793	1.88	0.105	1.59	1.26	22.6
190	76	784	1.90	0.103	1.47	1.15	21.3
200	95	774	1.92	0.101	1.36	1.05	20.0
210	117	765	1.93	0.099	1.26	0.96	18.8
220	142	755	1.95	0.097	1.17	0.88	17.8
230	172	745	1.97	0.096	1.08	0.80	16.5
240	205	735	1.99	0.094	1.01	0.74	15.7
250	242	725	2.00	0.092	0.95	0.69	15.0
260	284	715	2.02	0.090	0.89	0.64	14.3
270	330	704	2.04	0.088	0.83	0.58	13.5
280	380	694	2.05	0.086	0.78	0.54	12.9
290	436	683	2.07	0.084	0.74	0.51	12.5
300	496	672	2.09	0.082	0.70	0.47	12.0
310	561	661	2.10	0.080	0.66	0.44	11.5
320	631	649	2.12	0.079	0.63	0.41	11.0
330	706	637	2.14	0.077	0.60	0.38	10.6
340	786	625	2.16	0.075	0.57	0.36	10.3
350	871	613	2.17	0.073	0.55	0.34	10.0
360	962	601	2.19	0.071	0.52	0.31	9.64
370	1060	588	2.21	0.069	0.50	0.29	9.42
380	1160	575	2.22	0.067	0.48	0.28	9.15
390	1260	561	2.24	0.065	0.46	0.26	8.89
400	1370	548	2.26	0.064	0.45	0.25	8.71

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All the above information is provided to the best of our knowledge. Any legal liability for the content of this information and the suitability of the product for certain applications is rejected. Technical data are approximate values and are subject to the usual production fluctuations.