

FRAGOLTHERM® 500

Heat Transfer Fluid
-56 °C to 260 °C

Application

FRAGOLTHERM® 500 is used for pressureless, indirect heating in heat transfer systems and it is particularly suitable for heating-/cooling processes due its low viscosity. Typical fields of application are, for example, plastics processing and die casting for the automotive industry.

FRAGOLTHERM® 500 can be used in the liquid phase at a temperature range between -56 °C and 260 °C. The film temperature at the heater must not exceed 285 °C.

With use in high temperature ranges a nitrogen blanket is recommended in the expansion tank, in order to prevent premature ageing.

Quality

FRAGOLTHERM® 500 is a synthetic heat transfer fluid based on alkylbenzene.

FRAGOLTHERM® 500 is characterized by a low viscosity, so that a good heat transfer and a good pumpability can be ensured even at low temperatures.

FRAGOLTHERM® 500 is non-corrosive and is compatible with materials conventionally used in heat transfer technology.

Packaging

FRAGOLTHERM® 500 is available in steel drums and pails.

Notes

Please note that thermal or oxidative decomposition may cause an increase in low and high boiling substances when using heat transfer fluids even below the maximum specified bulk temperature.

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® 500			Method
Density @ 20 °C	[kg/m³]	857	
Viscosity @ 40 °C	[mm²/s]	4.04	
Viscosity @ 100 °C	[mm²/s]	1.36	
Pourpoint	[°C]	-80	ASTM D 97
Flash point	[°C]	136	ASTM D 92
Boiling point @ 1013 mbar	[°C]	293	
Max. film temperatur	[°C]	285	
Max. bulk temperatur	[°C]	260	
Dangerous goods according to IATA/IMDG/ADR	[-]	no	

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Temp. °C	Vapor Press. kPa (abs)	Density kg/m³	Heat Capacity kJ/kgK	Thermal Cond. W/mK	Visc. (kin) mm²/s	Visc. (dyn) mPas	Prandtl- Number
-56		909	1.61	0.133	2000	1818	21941
-50		904	1.64	0.133	866	783	9682
-40		898	1.68	0.131	279	251	3203
-30		891	1.72	0.130	111	98.9	1307
-20		884	1.76	0.129	52.1	46.1	629
-10		877	1.80	0.128	27.9	24.5	345
0		870	1.84	0.126	16.5	14.4	209
10		864	1.88	0.125	10.6	9.16	138
20		857	1.91	0.124	7.32	6.27	96.7
30		850	1.95	0.123	5.32	4.52	71.9
40		843	1.99	0.121	4.04	3.41	55.9
50		836	2.03	0.120	3.17	2.65	44.8
60		829	2.07	0.119	2.57	2.13	37.2
70		822	2.10	0.117	2.13	1.75	31.3
80		815	2.14	0.116	1.81	1.48	27.2
90		808	2.18	0.115	1.56	1.26	24.0
100		801	2.21	0.113	1.36	1.09	21.3
110		794	2.25	0.112	1.20	0.95	19.2
120		787	2.29	0.110	1.08	0.85	17.6
130		780	2.32	0.109	0.97	0.76	16.1
140	1	772	2.36	0.108	0.88	0.68	14.9
150	1	765	2.39	0.106	0.80	0.62	13.9
160	2	758	2.42	0.105	0.74	0.56	12.9
170	3	750	2.46	0.103	0.68	0.51	12.2
180	4	742	2.49	0.102	0.63	0.47	11.5
190	6	735	2.53	0.100	0.59	0.43	10.9
200	8	727	2.56	0.099	0.55	0.40	10.3
210	12	719	2.59	0.097	0.51	0.37	9.84
220	16	711	2.62	0.095	0.48	0.34	9.38
230	21	703	2.66	0.094	0.45	0.32	9.01
240	28	694	2.69	0.092	0.42	0.29	8.61
250	37	686	2.72	0.090	0.40	0.27	8.27
260	47	677	2.75	0.089	0.38	0.26	7.95
270	60	668	2.78	0.087	0.36	0.24	7.67
280	76	659	2.81	0.085	0.34	0.22	7.40
290	94	650	2.85	0.083	0.32	0.21	7.20

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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.