

FRAGOLTHERM® X-T20

Heat Transfer Fluid **-70 °C to 60 °C (200 °C)**

APPLICATION

FRAGOLTHERM® X-T20 can be used in open heating baths (with or without bath cover) from -70 °C to 60 °C. In other open systems with atmospheric contact and in closed systems with the exclusion of oxygen (e.g. inertisation with nitrogen), use at up to 200 °C is possible. In summary, this means:

- 70 °C to 60 °C:** Open heating baths (with or without bath cover)
- 70 °C to 200 °C:** Other open systems with atmospheric contact and closed systems without oxygen access

Due to the low pour point, operating temperatures of less than -70 °C are possible if the system is designed accordingly.

The suitability of FRAGOLTHERM® X-T20 for the low temperature range decreases with increasing water content, as at temperatures < 0 °C there may be a separation of the dissolved water and ice formation is possible. This can lead to a deterioration of the heat transfer and to a blockage of the system.

To prevent moisture from entering the heat transfer system, it is recommended that inertisation with nitrogen takes place, or a molecular sieve be installed in a bypass. Alternatively, moisture can be driven out by "stripping" with nitrogen in the expansion tank at approx. 120 °C.

FRAGOLTHERM® X-40 is the ideal heat transfer medium for temperature control systems and applications, e.g. in laboratories, in which freezing and heating processes are combined.

QUALITY

FRAGOLTHERM® X-T20 is a synthetic heat transfer fluid based on polydimethylsiloxane.

FRAGOLTHERM® X-T20 is compatible with the standard materials used in heat transfer technology. Not suitable are silicone elastomers.

FRAGOLTHERM® X-T20 is a crystal-clear, odourless and inert fluid that is characterised by low toxicity.

PROPERTIES

FRAGOLTHERM® X-T20	Value	Unit	Method
Density @ 25 °C	890	kg/m³	-
Viscosity @ 40 °C	2,40	mm²/s	-
Heat capacity 25 °C	1,66	kJ/kgK	-
Thermal conductivity 25 °C	0,12	W/mK	-
Pour point	< -100	°C	-
Flash point	> 62	°C	ASTM D93
Boiling point @ 1013 mbar	> 200	°C	-
Film temperature max.	220	°C	-
Bulk temperature max.	200	°C	-
Dangerous goods	no	-	according to IATA/IMDG/ADR

PACKAGING

FRAGOLTHERM® X-T20 is available as standard in steel drums and pails.

NOTES

Please note that in general, the use of heat transfer fluids, even below the maximum specified flow temperature, can lead to the formation of low and high boilers as a result of thermal or oxidative decomposition.

When handling the product, the safety data sheet must be observed.

Please contact us if you require further information or general technical advice.

Product information exist separately for the US customary measurement systems. Please contact FRAGOL.

2026-02. 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.

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PHYSICAL PROPERTIES

Temperature °C	Density kg/m ³	Heat Capacity kJ/kgK	Thermal Conductivity W/mK	Viscosity (kin) mm ² /s	Viscosity (dyn) mPas	Prandtl Number
-80	990	1.51	0.153	70.0	69.3	684
-70	981	1.53	0.150	40.0	39.2	399
-60	972	1.54	0.147	24.0	23.3	244
-50	962	1.56	0.144	16.0	15.4	166
-40	951	1.57	0.141	12.0	11.4	127
-30	942	1.59	0.138	9.00	8.48	97.4
-20	932	1.60	0.135	7.10	6.62	78.4
-10	922	1.62	0.133	5.70	5.26	64.1
0	912	1.63	0.130	4.70	4.29	53.7
25	890	1.67	0.124	3.00	2.67	35.9
40	874	1.69	0.119	2.40	2.10	29.7
50	864	1.70	0.116	2.10	1.81	26.6
60	855	1.72	0.113	1.80	1.54	23.4
80	836	1.75	0.107	1.50	1.25	20.5

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