

# FRAGOLTHERM® Q-32-N

**Heat Transfer Fluid**  
**-12 °C to 320 °C**

## Application

**FRAGOLTHERM® Q-32-N** is used in various systems for indirect heat transfer. Typical application fields are foundries, chipboard presses, calenders, vulcanisation plants, drying and mixing systems, as well as plastic injection moulding systems.

**FRAGOLTHERM® Q-32-N** can be used in the liquid phase in a temperature range of between -12 °C and 320 °C and is particularly well suited for heating processes in the moderate temperature range from 200 °C to 280 °C. The film temperature at the heater must not exceed 340 °C.

The low vapour pressure enables pressureless operation of the heat transfer system up to the maximum permissible bulk temperature.

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

## Quality

**FRAGOLTHERM® Q-32-N** is a mineral oil-based heat transfer fluid with high resistance to ageing. It is based on highly refined, specially treated base oils.

**FRAGOLTHERM® Q-32-N** is non-corrosive and is compatible with materials conventionally used in heat transfer technology.

Prerequisites for a long service life of the heat transfer fluid are careful configuration of the system and compliance with the recommended maximum bulk and film temperatures.

## Packaging

**FRAGOLTHERM® Q-32-N** is available 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® Q-32-N			Method
Density @ 20 °C	[kg/m³]	871	
Viscosity @ 40 °C	[mm²/s]	31.00	
Viscosity @ 100 °C	[mm²/s]	5.40	
Pourpoint	[°C]	-12	ISO 3016
Flashpoint	[°C]	220	ISO 2592
Boiling point @1013 mbar	[°C]	360	DIN 51356
Film temperature max.	[°C]	340	
Bulk temperature max.	[°C]	320	
Water hazard class	[-]	1	
Dangerous goods according to IATA/IMDG/ADR	[-]	no	

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FRAGOL THERM<sup>®</sup> Q-32-N

Temp. °C	Vapor Press. kPa (abs)	Density kg/m <sup>3</sup>	Heat Capacity kJ/kgK	Thermal Cond. W/mK	Visc. (kin) mm <sup>2</sup> /s	Visc. (dyn) mPas	Prandtl- Number
0		890	1.90	0.134	300	267	3786
10		880	1.94	0.134	184	162	2344
20		871	1.97	0.133	85.0	74.0	1097
30		865	2.01	0.132	45.5	39.4	599
40		858	2.05	0.131	31.0	26.6	416
50		853	2.08	0.131	20.8	17.7	282
60		845	2.12	0.130	14.7	12.4	202
70		840	2.16	0.129	10.7	8.99	150
80		833	2.19	0.129	8.30	6.91	117
90		826	2.22	0.128	6.41	5.29	91.8
100		820	2.26	0.127	5.40	4.43	78.8
110		815	2.29	0.126	4.60	3.75	68.1
120		809	2.32	0.126	3.90	3.16	58.1
130		802	2.36	0.125	3.29	2.64	49.8
140		795	2.39	0.124	2.73	2.17	41.8
150		788	2.43	0.124	2.26	1.78	34.9
160		781	2.46	0.123	1.91	1.49	29.8
170		775	2.50	0.122	1.70	1.32	27.0
180		770	2.53	0.121	1.53	1.18	24.6
190		764	2.56	0.121	1.41	1.08	22.8
200		757	2.60	0.120	1.29	0.98	21.2
210	1	750	2.63	0.119	1.17	0.88	19.4
220	1	743	2.67	0.118	1.09	0.81	18.3
230	1	738	2.70	0.118	1.00	0.74	16.9
240	1	731	2.73	0.117	0.91	0.67	15.5
250	2	725	2.77	0.116	0.86	0.62	14.9
260	3	719	2.80	0.115	0.80	0.58	14.0
270	4	712	2.84	0.115	0.76	0.54	13.4
280	5	707	2.87	0.114	0.70	0.49	12.5
290	6	700	2.91	0.113	0.66	0.46	11.9
300	7	693	2.94	0.113	0.62	0.43	11.2
310	9	686	2.97	0.112	0.60	0.41	10.9
320	12	680	3.00	0.111	0.57	0.39	10.5
330	16	674	3.04	0.111	0.55	0.37	10.2
340	21	668	3.07	0.110	0.52	0.35	9.69
350	25	661	3.11	0.109	0.50	0.33	9.43

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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.