

RENOLIN THERM 320

Heat transfer fluid

Description

RENOLIN THERM 320 is a high-performance heat transfer fluid based on selected, highly refined mineral oils for use in the liquid phase in closed heat transfer systems with forced circulation. RENOLIN THERM 320 (heat transfer oil Q DIN 51522) can be used over the entire working range without pressure overlap.

Application

RENOLIN THERM 320 is perfectly suitable for use in the indirect heating of reactors, polymerization and distillation systems, processing machines and driers, as well as heat exchangers in processing systems, and in systems for heat recovery.

The heat transfer fluid is best used at temperatures ranging from 200 °C to 300 °C. The upper limit for use is an inlet temperature of 300 °C.

The film temperature should not exceed 320 °C. At operating temperatures > 300°C the product must be used in closed systems with nitrogen overlays (N₂). The use in open heat transfer systems is not recommended due to high thermal load in the open system.

Specifications

Heat transfer fluid Q according to DIN 51522.

Advantages

- **Excellent thermal stability**
- **Extremely low coking**
- **Low residue formation, clean systems**
- **Good heat transfer properties**
- **Protects against corrosion**
- **Long service life**
- **Pumpable to + 5 °C**
- **Permissible film temperature: 320 °C**

RENOLIN THERM 320

Heat transfer fluid

Typical technical Data:

Properties	Unit	Data	Test method
Initial boiling point at 1013 mbar	°C	390	ASTM D 1160
Pourpoint	°C	- 12	DIN ISO 3016
Density at 15 °C	kg/m ³	870	DIN 51757
Kinematic viscosity at 0 °C	mm ² /s	535	DIN EN ISO 3104
at 40 °C	mm ² /s	43,7	
at 100 °C	mm ² /s	6,5	
Flash point, COC	°C	225	DIN ISO 2592
Ignition temperature	°C	350	DIN 51794
Permissible inlet temperature	°C	300	-
Permissible film temperature	°C	320	-
Pumpability limit	°C	+ 5	-

Stoff / Product (Handelsname / Brand Name)	Temperatur Temperature	Dichte Density	spez. Wärme- kapazität spec. heat capacity	Wärmeleit- fähigkeit Heat con- ductivity	kinematische Viskosität kinematic viscosity	Prandtl- Zahl Prandtl coefficient
	°C	kg/m ³	kJ/kg K	W/m K	m ² /s E-06	-
RENOLIN THERM 320	0	879	1,864	0,134	535	6543
	50	848	2,078	0,131	28,6	385
	100	816	2,293	0,127	6,5	96
	200	750	2,721	0,120	1,5	26
	300	685	3,151	0,113	0,7	13,4
	320	672	3,236	0,111	0,6	11,8

Product Information

MOVING YOUR WORLD



Note

The information contained in this product information is based on the experience and know-how of FUCHS LUBRICANTS GERMANY GmbH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible.

Our products must not be used in aircraft or spacecraft. Our products may be used in the manufacture of components for aircraft or spacecraft if they are removed without residue from the components prior to assembly into the aircraft or spacecraft.

The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application. We therefore recommend that you consult a FUCHS LUBRICANTS GERMANY GmbH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our product information sheets at any time and without warning, unless otherwise provided in customer-specific agreements. With the publication of this product information, all previous editions cease to be valid. Any form of reproduction requires express prior written permission from FUCHS LUBRICANTS GERMANY GmbH.

© FUCHS LUBRICANTS GERMANY GmbH. All Rights reserved.