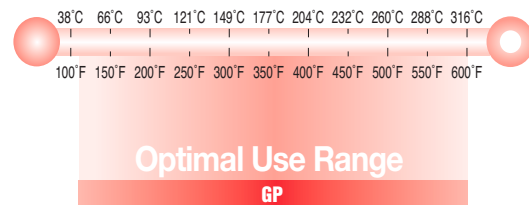


Paratherm™ GP

Heat Transfer Fluid



Robust Performance for the Chemical and Gas Processing Industries

ENGINEERING BULLETIN GP 719

Paratherm™ GP is a premium heat transfer fluid carefully engineered to outperform standard mineral oils. It is designed for extended trouble-free service in closed-loop liquid-phase systems to 600°F (316°C) in fuel-fired heaters.

Applications include:

- Chemical processing
- Gas processing

Enhanced Thermal Stability

The unique chemical structure of Paratherm GP allows for robust performance across a wide operating range and inherently resists thermal cracking at elevated temperatures. Paratherm GP's chemical structure is advantageously designed to resist fouling, coking and sludge formation if degradation does eventually occur.

Fluid Storage

Paratherm GP drums should be stored indoors to prevent moisture ingress. If sealed drums must be left outdoors, it is recommended they be stored on their sides. Unopened totes should not be stacked if left outdoors. If the fluid is to be stored outside below its minimum pumpable temperature, the containers should be moved indoors to warm up prior to charging to the system.

Replacing Existing Fluid

In most cases, changing fluid involves a straightforward drain and fill. Paratherm GP is fully compatible with all mineral oil-based heat transfer fluids and many other fluids, and so 10-15% residue should have no effect on the new Paratherm.

Typical Properties*

Chemical Name	Naphthenic Hydrocarbon	
Appearance	Pale Yellow Liquid	
Odor	Slight Hydrocarbon	
Maximum Recommended Operating Temperature	600°F (316°C)	
Maximum Recommended Film Temperature	650°F (343°C)	
Minimum Start-up Temperature (300 cPs)	30°F (-1°C)	
Viscosity (cSt)	40°C (104°F)	31
	100°C (212°F)	4.5
Density @ 60°F (15.5°C) lb/gal (kg/m3)	7.5 (898)	
Flash Point, Pensky-Martens Closed Cup (D93)	315°F (157°C)	
Flash Point, Cleveland Open Cup (D92)	341°F (172°C)	
Average Boiling Point (14.7psia / 101kPa)	729°F (387°C)	
Initial Boiling Point (14.7psia / 101kPa)	421°F (216°C)	
10%	597°F (314°C)	
50%	722°F (383°C)	
90%	878°F (470°C)	
Final Boiling Point	1,026°F (552°C)	

*These are typical laboratory values, and do not represent a specification

Charging New Systems

Unless required for product-quality reasons, new systems do not need to be cleaned before charging Paratherm. Residual manufacturing residues (coatings, oils etc.) should not affect fluid life. It is wise to install a 60-mesh screen upstream of the pump to catch any metal or welding residue.

Fluid Analysis

The fluid in new systems should be tested within 9-12 months of start-up. New fluid in

existing systems should be tested within the first month of operation to establish a baseline for future testing.



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Visit Paratherm.com for detailed properties in a choice of temperature increments.

Note: The information and recommendations in this literature are made in good faith and are believed to be correct as of the below date. You, the user or specifier, should independently determine the suitability and fitness of Paratherm heat transfer fluids for use in your specific application. We warrant that the fluids conform to the specifications in Paratherm literature. Because our assistance is furnished without charge, and because we have no control over the fluid's end use or the conditions under which it will be used, we make no other warranties—expressed or implied, including the warranties of merchantability or fitness for a particular use or purpose (recommendations in this bulletin are not intended nor should be construed as approval to infringe on any existing patent). The user's exclusive remedy, and Paratherm's sole liability is limited to refund of the purchase price or replacement of any product proven to be otherwise than as warranted. Paratherm will not be liable for incidental or consequential damages of any kind.