



globaltherm®

GLOBALTHERM 55

SYNTHETIC HEAT TRANSFER FLUID
For use in indirect heating systems

PRODUCT INFORMATION

Durable, resistant to fouling, long-life synthetic heat transfer fluid for a wide range of processes that require moderate temperature, without the need for high pressures.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name

Globaltherm® 55
Heat transfer fluid

Company Information

Globaltherm, Cold Meece
Estate, Cold Meece, Stone,
Stafford, ST15 0SP, UK

Emergency telephone

+44 (0) 1785 760555

Web

www.globalhtf.com

2. PRODUCT DESCRIPTION

A durable heat transfer fluid requiring moderate

temperatures for use in non-pressurized systems or systems with low pressure.

Globaltherm® 55 delivers excellent reliability and can be used continually at 300C (570F). This synthetic heat transfer fluid will be resistant to fouling and the effects of oxidation up to 10 times better than a mineral oil. The performance is significant when used in systems without nitrogen.

Globaltherm® 55 is still pumpable to -28C (-18F) which is low when compared to some mineral oils. This means you can start your

system more easily and quickly.

Principal features and benefits:

- Excellent resistance to fouling
- Low temperature pumpability
- Reliable heat transfer without the need for high pressure
- Long-life
- For use in a wide range of applications including; asphalt, biomass / ORC, cement, gas purification, oil or gas processing, polymer and plastics and waste heat recovery.



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3. APPLICATIONS

Globaltherm® 55 is a synthetic hydrocarbon mixture and can be used in a wide range of applications requiring moderate temperature.

Globaltherm® 55 is also used in systems with no or low pressure.

4. SERVICE CONSIDERATIONS

As with any heat transfer product, certain precautions should be taken to ensure satisfactory performance of Globaltherm® 55 Heat transfer fluid in service:

- Before full temperature is imposed, all air and water should be completely vented;
- Hot oil is rapidly oxidised by air, causing thickening and deposit formation. At places where the oil is in contact with the atmosphere (e.g., the expansion vessel) the oil should not exceed 60 °C for prolonged times or the oil needs to be blanketed with inert gas. Copper and its alloys promote rapid oil degradation in the presence of air and need to be avoided at these places; and,
- Hot oil circulating pumps must be checked frequently to prevent air from entering.

An analytical routine check of the heat transfer medium, while it is hot and circulating, should be part of the routine maintenance plan. This check should be carried out at least once a year, preferably three to four times a year. Testing can be carried out by Global Heat Transfer - via the Thermocare® lifecycle management programme - to all users of Globaltherm® Heat transfer fluids. The thermal fluid parameters which are measured will allow our experts an accurate assessment of the condition of the fluid. This way, Thermocare® testing and analysis programmes ensure prolonged and trouble-free operation of the fluid. Changes to the condition of the fluid are quickly detected and managed with Thermocare® and can be avoided in time before more extensive damage (to both system and fluid) and further costs are incurred.

Phone: +44 (0) 1785 760555 to ask about Thermocare® preventative maintenance programmes and heat transfer fluid testing and analysis.

5. COMPATIBILITY

While unused Globaltherm® 55 Heat transfer fluid is compatible with most organic and synthetic heat transfer oils prior laboratory testing is recommended before topping-up the system with this product. Adding Globaltherm® 55 Heat transfer fluid as a top-up to used fluids may help to increase fluid life (i.e., aromatic types). Please contact our technical team for more information and lab services and sample and analysis on +44 (0) 1785 760555.

6. PHYSICAL AND CHEMICAL PROPERTIES

Parameter	Unit	Code (ASTM/ISO)	Result
Appearance	N/A	N/A	Clear, yellow liquid
Operating Range	°C (°F)	N/A	-28 to 300 (-18 to 570)
Composition			Synthetic hydrocarbon mixture
Density @ 25°C	kg/m ³	ASTM D4052	868
Kin. Viscosity 40°C	mm ² /s (cSt)	ASTM D445	19
Kin. Viscosity 100°C	mm ² /s (cSt)	ASTM D445	3.52
Flash Point COC	°C/°F	ASTM D92	177 (350)
Autoignition Point	°C/°F	ASTM E659 DIN 51794	343 (650) 366 (691)
Pour Point	°C/°F	ISO 3016	-54 (-65)
Maximum Bulk Temperature	°C/°F	NTR	300 (570)
Extended maximum bulk Temperature	°C/°F	NTR	315 (600)
Maximum Film Temperature	°C/°F	NTR	335 (635)
Boiling Point	°C/°F	NTR	351 (664)
Copper Corrosion		ASTM D130	<<1a
Average Molecular Weight	NTR	NTR	320
Moisture Content	PPM	ASTM E-203	150

Note: The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This edition supersedes all previous editions and information contained within them. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product. Abbreviations: OC, open cup test; COC, Cleveland open cup test; and, NTR, no test reported.

7. HEALTH AND SAFETY

Please refer to the associated Safety Data Sheet for detailed information on Health and Safety.

8. OTHER INFORMATION

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