

PRODUCT INFORMATION

ASSISTO THERM 5

Description

ASSISTO THERM 5 is a heat transfer oil produced from selected highly refined mineral oils having high levels of thermal stability, low vapour pressure and specific heat and thermal conductivity for use in the liquid phase in closed heat transfer systems with forced circulation.

Application

ASSISTO THERM 5 is recommended for non-pressurised indirect heating systems. The normal operating temperature range of bulk oil is from -10 to 320°C, however the film temperature should not exceed 340°C.

After the system has been pressure tested for leaks and thoroughly flushed with ASSISTO THERM 5 (never use water), the system should be drained completely and filled with fresh ASSISTO THERM 5 until the oil level in the expansion tank is at 40% of the level expected at operating temperature. The mineral oil expands when heated and the exposure to air must be minimised, especially at fluid temperatures above 50°C in the expansion tank. To minimise excessive oxidation of the oil it can be blanketed with inert gas, or a floating cover can be installed.

Features/Advantages and Benefits

- Excellent thermal stability
- Good heat transfer properties
- Low coking and residue formation
- Very good pumpability
- Maintains necessary viscosity at running temperatures to minimise the likelihood of pump cavitation and wear
- Long service life

MARINE IN ALL WE DO!

Typical Characteristics

Properties	Test Method	Data	Unit
Density at 15°C	ASTM D1298	0.87	kg/L
Flash Point (PMC)	ASTM D93	195	°C
Flash Point (COC)	ASTM D92	210	°C
Fire Point	ASTM D92	260	°C
Autogenous Ignition temp.	ASTM D2155	360	°C
Kinematic viscosity @ 40°C	ASTM D455	30,5	cSt
Kinematic viscosity @ 100 °C	ASTM D455	5.3	cSt
Pour point	ASTM D97	-12	°C
Neutralisation Value	ASTM D974	<0.05	mgKOH/g
Ramsbottom Carbon	ASTM D524	0.03	%wt
Coefficient of Thermal Expansion		0.00077	1/K

Health and Safety

The Safety Data Sheet is available on request and describes the product from the points of view of safety in use, handling and transport. The product is not classified as dangerous according to the Directive 1999/45/CE. Under normal use conditions, this product does not pose significant risks for the health.

Handling and Packaging

The compatibility and miscibility with comparable products from other suppliers have been tested successfully by an independent institute. In order to achieve full scale benefits of product performance the mixing of lubricants should be limited to its minimum.

All packages should be stored under cover to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C.

The product is available in bulk and drums of approximately 205 liters.

Further Information

For further information about LUKOIL Marine Lubricants please contact any representative of LUKOIL Marine Lubricants or visit our web site www.lukoilmarine.com.

LUKOIL Marine Lubricants Ltd.

This data sheet and the information given are considered to be accurate to the best of our knowledge. While the physical and chemical characteristics are typical of current production and compliant to specification of «LLK International», variations in these characteristics may occur. No warranty expressed or implied, is given as to the accuracy or completeness of the information or suitability of the products. «LLK International» and the distributor shall not be responsible for any damage or injury resulting from abnormal use of the product. The user will be always responsible to evaluate and use products safely and to comply with all applicable laws and regulations. Furthermore «LLK International» shall not be liable for any loss or damage resulting from any error or omission in this document.

August 2011

This data sheet and the information given are considered to be accurate to the best of our knowledge. While the physical and chemical characteristics are typical of current production and compliant to specification of «LLK International», variations in these characteristics may occur. No warranty expressed or implied, is given as to the accuracy or completeness of the information or suitability of the products. «LLK International» and the distributor shall not be responsible for any damage or injury resulting from abnormal use of the product. The user will be always responsible to evaluate and use products safely and to comply with all applicable laws and regulations. Furthermore «LLK International» shall not be liable for any loss or damage resulting from any error or omission in this document.