

# ENOC LAMINA SPECIAL

## PRODUCT DESCRIPTION

**ENOC LAMINA Special Oil** is a high quality heat transfer and fast quenching medium. It is thermally stable, has high specific heat and thermal conductivity which gives outstanding performance in direct heating installations operating at bulk temperatures up to maximum 320° C

## APPLICATIONS

- ◆ If used for open system, the operating temperature shall not exceed 210°C for safety purposes.
- ◆ Recommended for use in indirect heating and cooling installations in all kinds of Industrial processes operating at bulk oil temperatures up to maximum 320°C for ISO 32.
- ◆ Closed systems with inert gas sealing up to 290°C.
- ◆ Heating of reaction vessels, driers, moulding machines.
- ◆ Fast Quenching applications.

## PERFORMANCE STANDARDS

**ASTM D-3520 (GM Quench meter) for ISO 22 VG oil**

**Averages quench time (sec) 13.5**

**Relative cooling Index 202**

DIN 51502 class L

ISO 6743/12 class L QB family

***Always follow the equipment manufacturer's recommendations.***

## BENEFITS

**LAMINA Special Oil provides:**

- ◆ High resistance to thermal cracking and decomposition.
- ◆ Maximum energy transfer and improved operating efficiency.
- ◆ Low temperature flow characteristics at start-up.
- ◆ Good resistance to the formation of deposits.
- ◆ Good thermal stability.

Technical Data*		
SAE GRADE	32	22
Density at 29.5 deg C, g/cc	0.8682	0.8468
Kinematic Viscosity at 40°C mm <sup>2</sup> /s	32	22
Kinematic Viscosity at 100°C mm <sup>2</sup> /s	5.42	4.39
Viscosity Index	103	107
Flash Point, COC, °C	220	210
Pour Point, °C	-12	-12
Fire Point COC, °C	260	*
Auto Ignition Temperature °C	353	*
Bulk Oil Temp. (in absence of air) °C	290	*
Film Temp. (in absence of air) °C	310	*
Initial Boiling Point °C	371	*
Final Boiling Point °C	516	*
Product Code	249104	249103

Issued by ENOC International Sales, Dubai, U.A.E.  
Last Updated on: November 2013- RA

\*Being Developed

### Typical Design Data – Lamina Special 32

Temperature (°C)	0	20	40	100	150	200	250	300
Density (kg/m <sup>3</sup> )	883	870	857	818	785	753	720	688
Specific heat Capacity , Cp	1,790	1,860	1,930	2,140	2,315	2,490	2,665	2,840
Thermal conductivity (W/m.°C)	0,135	0,134	0,132	0,128	0,125	0,121	0,118	0,114

\*The information prepared provides the typical properties that are considered as representative. Some variation which will not affect performance is possible

#### HEALTH AND SAFETY, ENVIRONMENT

The information on this product is available in the ENOC Material Safety Data Sheet (MSDS) as a guide to the precautions and safe handling of this product and its disposal. For further information we recommend you review the MSDS. Handled correctly there are no special precautions suggested.