

# **ENOC STRATA MSD**

## PRODUCT DESCRIPTION

**ENOC STRATA MSD** are a range of generation III high performance engine oils for all types of marine medium speed diesel engines operating on high sulphur residual fuels. They have been developed from the latest complex dispersant and detergent technology to provide long lubrication life and enhanced engine performance particularly in low emission engines and those with anti-bore glazing piston designs.

#### **APPLICATIONS**

- A range of high Total Base Number oils for use in Trunk Piston Engines burning variable quality residual fuel with high sulphur content available in the market
- Provide gear lubrication qualities for reduction gear applications where similar viscosities might be used
- Suitable for high output turbocharged engines
- It is recommended that Strata MSD oils are suitable for centrifuging and/or filtered in accordance with the manufacturer's instructions
- Suitable for WARTSILA NSD, MAN (B&W), KHD DEUTZ, PIELSTICK, NIGATA, MAK, DAIHATSU, MIRLESS BLACKSTONE trunk piston diesel engines (4 Stroke)

#### PERFORMANCE STANDARDS

Approved for WARTSILA Marine Engines
Suitable for use in MAN B&W and Sulzer Marine Engines

# **BENEFITS**

## STRATA MSD provides:

- Suitability for engines using high sulphur residual or distillate fuels
- Superior resistance to oxidation and oil thickening
- Effective neutralisation of acidic combustion products
- Proven detergent/dispersant technology to reduce deposit formation
- ♦ Long engine and oil service life
- ♠ Excellent centrifugal separator operation

Technical Data*											
Product Grade	320	330	340	350	355						
SAE Viscosity	30	30	30	30	30						
Density @ 29.5 deg. C	0.8881	0.8941	0.9001	0.914	0.9152						
Kinematic Viscosity, mm <sup>2</sup> /s @ 100°C	11.66	11.82	11.89	11.66	11.82						
Kinematic Viscosity, mm <sup>2</sup> /s @ 40°C Flash Point COC °C	104.3 244	106.2 250	107.2 252	104.3 246	105.2 250						
Pour Point, <sup>0</sup> C	-15	-15	-15	-15	-15						
Total Base Number, ASTM D2896	20	30	40	50	55						
FZG fail stage (A8.3/90)	12	12	12	12	12						
Product code	252019	152003	152012	252018	252013						

**Classification: ENOC Public** 



# **ENOC STRATA MSD**

	Technic	cal Data*					
Product Grade	420	430	440	450	455	530	540
SAE Viscosity	40	40	40	40	40	50	50
Density @ 29.5 deg. C	0.8924	0.8986	0.9044	0.9099	0.91	0.9053	0.9097
Kinematic Viscosity, mm <sup>2</sup> /s @ 100°C	14.55	14.58	14.54	14.66	14.62	19.1	19.15
Kinematic Viscosity, mm <sup>2</sup> /s @ 40°C	147	145.2	139.5	142.6	140.8	212.1	214.6
Flash Point COC <sup>0</sup> C	258	252	254	258	258	252	252
Pour Point, <sup>0</sup> C	-15	-15	-15	-15	-15	-9	-9
Total Base Number, ASTM D2896	20	30	40.6	50	55	30	40
FZG fail stage (A8.3/90)	12	12	12	12	12	12	12
Product code	152010	152005	152002	252020	252014	252015	252016

<sup>\*</sup>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.