

Technical Data Sheet

PATRON MARINE

(MINERAL)

PRODUCT DESCRIPTION :

PATRON MARINE is a trunk piston engine oils, it is formulated from high latest additives technology and high quality of base oils to meet the latest design of medium speed diesel engines burning residuals fuels in marine application and stationary engines.

APPLICATION:

PATRON MARINE oils are recommended for all types of new modern marine and stationary medium & low speed Diesel Engines using high residual fuels. They are specially designed to provide a higher stress level during continuous operation. It provides engine outstanding cleanness in all weather conditions and longer engine life.

FEATURES & BENEFITS :

- Excellent water resistance.
- Very good thermal and high temperature resistance.
- Reduce build up deposits in the engine.
- Very good viscosity control, oxidation resistance.
- Potential fuel economy improvement compared to conventional CF heavy duty engine oils.

PERFORMANCE LEVELS / MEETS OR EXCEEDS:

- API CF.
- Yanmar.
- MAN 3275.
- ACEA E7, A3/B3/B4.
- VOLVO VDS-2.
- Renault RLD-2.
- MTU Type 2.
- WÄRTSILÄ.
- Mack EO-M/EO-L.
- Cummins CES 20076.
- DFS 93K215.

TYPICAL PERFORMANCE :

PARAMETERS	ASTM	UNIT	PATRON MARINE					
			MARINE 3030	MARINE 3040	MARINE 4030	MARINE 4040	MARINE 4050	MARINE 4055
Grade								
Kinematic Viscosity @ 104°F /40°C	D-7042	cSt	103.7	110.4	154.7	150	151	151
Kinematic Viscosity @ 212°F /100°C	D-7042	cSt	11.9	12	14.8	14.5	14.85	14.9
Viscosity Index	D-2270	-	96	98	95	97	98	98
SP. Gravity @15°C/ 60°F	D-4052	g/cm3	0.899	0.918	0.915	0.921	0.927	0.925
Flash Point (min)	D-92	°C	232	240	240	240	242	242
Pour Point (max)	D-97	°C	-18	-18	-15	-15	-15	-15
TBN	D-2896	Mg KOH/g	30	40	30	40	50	55
CCS, (°C)	D-5293	m.Pa.S	<7000 (-20°C)	<7000 (-20°C)	<9500 (-15°C)	<9500 (-15°C)	-	-

HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment.

Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS.

STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.