petrogulf® marine

Product Data Sheet

PETROGULF MARINE MDO

Product Grade I 3012 I 3015 I 3020 I 4012 I 4015 I 4020 I 5012 I 5015

PRODUCT DESCRIPTION

Petrogulf Marine MDO is a trunk piston engine oil designed for use in medium-speed diesel engine applications. Its advanced additive technology provides superior compatibility, ensuring engine cleanliness and long-term protection. This oil is available in SAE 30 and SAE 40 viscosity grades with BN (Base Number) options of 12, 15, and 20.

FEATURES & BENEFITS

- Superior detergency ensures cleanliness of piston and crankcase
- Enhanced anti-wear properties reduce engine wear and lower maintenance costs
- Excellent high-temperature and thermal stability
- Reserve BN provides protection of engine parts against corrosive combustion by-products
- Prevents corrosion of engine components in harsh saltwater environment

APPLICATIONS

- Recommended for medium speed engines used in marine, power generation and industrial applications operating on distillate fuels having Sulphur contents up to 1.5 %. This product is also suitable for older engines where liner lacquer is not a potential problem
- Also recommended for general lubrication of shipboard equipment where specialized lubricants are not required
- Follow manufacturers' recommendation for selection of suitable BN level and viscosity grade

OEM REQUIREMENTS

- API CF
- FZG 11th stage pass
- WÄRTSILÄ 4-stroke engines
- MAN B&W 4-stroke engines
- CATERPILLAR MAK 4-stroke medium speed engines
- NIGATA
- YANMAR
- DAIHATSU

TYPICAL CHARACTERISTICS

PROPERTIES	TYPICAL VALUES			
Product Grade	**3012**	**3015**	**3020**	**4012**
Kinematic Viscosity @ 40°C, cSt	99.2	99.4	99.4	149
Kinematic Viscosity @ 100°C, cSt	11.0	11.0	11.0	14.5
Viscosity Index	95	95	95	95
Density @ 15°C, Kg/L	0.887	0.889	0.890	0.895
Pour Point, °C	-18	-18	-15	-15
Flash Point, °C	230	230	230	230
Foaming Seq I, II ,III	50/0, 20/0, 50/0	50/0, 20/0, 50/0	50/0, 20/0, 50/0	50/0, 20/0, 50/0
TBN (mg KOH/gm)	12.0	15.0	20.0	12.0
Product Code	32700040001	32700050001	32700060001	32700040002

***These characteristics are typical of current production. While future production will conform to Petrogulf's specification, variations in these characteristics may occur.*

Last update: April 2025

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TYPICAL CHARACTERISTICS

PROPERTIES	TYPICAL VALUES			
Product Grade	**4015**	**4020**	**5012**	**5015**
Kinematic Viscosity @ 40°C, cSt	149	157	225	225
Kinematic Viscosity @ 100°C, cSt	14.5	15	19	19
Viscosity Index	95	95	95	95
Density @ 15°C, Kg/L	0.896	0.897	0.906	0.916
Pour Point, °C	-15	-12	-12	-12
Flash Point, °C	230	230	240	240
Foaming Seq I, II, III	50/0, 20/0, 50/0	50/0, 20/0, 50/0	50/0, 20/0, 50/0	50/0, 20/0, 50/0
TBN (mg KOH/gm)	15.0	20.0	12.0	15.0
Product Code	32700050002	32700060002	32700040003	32700050003

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HANDLING, HEALTH AND SAFETY

- In normal conditions of use, this lubricant presents no particular toxic hazard. All lubricants, of any kind should be handled with great care, particularly avoiding any contact with skin.
- Prevent any splashing, and keep away from combustible materials. Store under cover and away from any risk of pollution. Dispose off the used oil correctly; don't pour down drains, into watercourses or the soil.
- Petrogulf will not accept liability if the product is used other than in manner or with the precautions, or for the purpose specified. Before the product is used other than directed advice should be obtained from Petrogulf local office.

Last update April 2025