### **MEDRIPAL 440**



## Industrial & Marine Engine Oil



#### **Product Description**

MEDRIPAL 40 SERIES is formulated from HVI (High Viscosity Index) base oils with additive package specially designed for medium speed diesel engine.

MEDRIPAL 40 SERIES have sufficient TBN to neutralize combustion acid; provides optimum protection against rust, corrosion & excessive wear; has a good balance between oxidation stability, detergency and dispersancy to prevent piston deposit formation and maintain engine cleanliness; and also able to easily separate from dirt and water through centrifugal separator.

#### **Applications**

MEDRIPAL 40 SERIES is recommended for lubrication of medium speed industrial and marine diesel engines burning residual diesel fuel with sulfur content 1 - 3.5%wt with high oil stress condition. MEDRIPAL 540 is not designed for cylinder lubrication of two stroke crosshead diesel engine.

| TYPICAL CHARACTERISTICS           |               |              |              |
|-----------------------------------|---------------|--------------|--------------|
| Characteristics                   | Test Method   | MEDRIPAL 440 | MEDRIPAL 540 |
| SAE Viscosity Grade               | -             | 40           | 50           |
| Density 15 °C, Kg/L               | ASTM D - 4052 | 0.9108       | 0.9147       |
| Kinematic Viscosity at 40 °C, cSt | ASTM D - 445  | 143.80       | 229.10       |
| at 100 °C, cSt                    | ASTM D - 445  | 14.38        | 19.76        |
| Viscosity Index                   | ASTM D - 2270 | 98           | 98           |
| ASTM Colour                       | ASTM D - 1500 | L 5.5        | L 6.5        |
| Flash Point, °C                   | ASTM D - 92   | 256          | 249          |
| Pour Point, °C                    | ASTM D - 5950 | -18          | -18          |
| Total Base Number, mg KOH/g       | ASTM D - 2896 | 40           | 40           |

#### Performance Levels

MEDRIPAL 40 SERIES meets performance level of API CF. MEDRIPAL 440 has been approved by:

- MAN Energy Solutions
- Wartsila
- Yanmar

PRODUCT DATA SHEET Update May 2023 Pertamina Medripal Page 1 / 2

### **MEDRIPAL 440**



# Industrial & Marine Engine Oil



Health and Safety

Please contact our Industrial Marketing Head Office to get Material Safety Data Sheet as information for Health and

Safety Protection Phone: 62-21 3190 7190/5 Fax: 62-21 3148884/601

Email: hss<u>e.ptpl@pertamina.com</u>

#### www.pertaminalubricants.com

#### Disclaimer:

Information presented in this Product Data Sheet is as accurate as possible prior to printing. Such information is based upon standard industry tests under controlled laboratory conditions and presented as a guide only. To assess product suitability for its intended application, it is recommended that users refer to the latest version of the Product Data Sheet because the information contained herein is subject to change, without notice, due to the upgrades in product formulation, manufacturers' equipment specifications, user applications and storage.

PRODUCT DATA SHEET Update May 2023 Pertamina Medripal Page 2 / 2