



## 11 - SERIES

**F**ormulated from High Viscosity Index (HVI) base oil with additives, specially designed for medium speed diesel engine.

MEDRIPAL 11 series has 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.

Diformulasikan dari base oil High Viscosity Index (HVI) dengan aditif yang didesain khusus untuk pelumas mesin diesel putaran sedang.

MEDRIPAL 11 series memiliki nilai TBN yang memadai untuk menetralkan asam hasil pembakaran; memberikan perlindungan optimal terhadap karat, korosi dan keausan berlebih; memiliki keseimbangan yang baik antara ketabilan oksidasi, detergency dan dispersancy untuk mencegah pembentukan deposit pada piston dan menjaga kebersihan mesin dan juga dapat terpisah dengan mudah dari kotoran dan air melalui centrifugal separator.

### Typical Characteristics

Characteristics	Test Method	MEDRIPAL 311	MEDRIPAL 411
SAE Viscosity Grade	-	30	40
Density at 15 °C, kg/L	ASTM D4052	0.8911	0.8956
Kinematic Viscosity at 40 °C, cSt	ASTM D7279	106.8	145.6
at 100 °C, cSt	ASTM D7279	11.82	14.45
Viscosity Index	ASTM D2270	99	97
Flash Point, °C	ASTM D92	268	272
Pour Point, °C	ASTM D97	-18	-18
Total Base Number, mg KOH/g	ASTM D2896	12	12

### SPECIFICATIONS / APPROVALS

- Yanmar
- API CF

### APPLICATIONS

MEDRIPAL 11 series is designed for medium speed trunk piston industrial and marine diesel engines for burning distillate diesel fuel with sulphur content less than 0.5 % weight.

MEDRIPAL 11 series can also be used for gear, variable pitch propeller, and deck machineries.

### SPESIFIKASI / APPROVAL

- Yanmar
- API CF

### PENGGUNAAN

MEDRIPAL 11 series didesain untuk pelumasan mesin diesel industri dan perkapalan putaran sedang tipe trunk piston yang menggunakan bahan bakar jenis distillat dengan kandungan sulfur di bawah 0,5 % berat.

MEDRIPAL 11 series juga direkomendasikan untuk roda gigi, variable pitch propeller dan mesin di dek kapal.