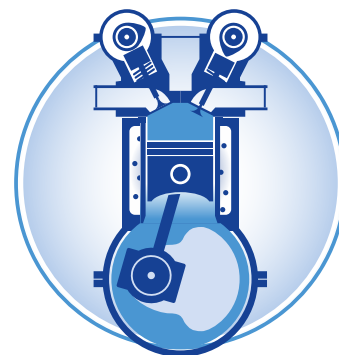


# Disola M 4012

Trunk piston oil for medium speed engines.



| APPLICATIONS   |
|--|
| Marine oils designed for the lubrication of medium speed diesel engines.   |
| Turbocharged and naturally aspirated main and auxiliary engines of all types and all ratings, running on Gas Oil or Marine Diesel Oil. |
| The product can also be used to lubricate bearings, stern tubes and reduction gears.   |

| FEATURES AND BENEFITS   |
|---|
| The Disola M range of trunk piston engine oils are developed for use in medium speed diesel engines utilizing distillate fuels. |
| Disola M combines an exclusive formulation of the latest additive technologies, developed by the TotalEnergies research center. |
| The product utilizes highly refined base oils to provide a substantial safety margin able to cope with higher stress levels.    |

| SPECIFICATIONS AND APPROVALS |                     |   |                   |
|------------------------------|---------------------|---|-------------------|
| ✓                            | Everllence (MAN ES) | ✓ | Wärtsilä          |
| ✓                            | Hyundai Himsen      | ✓ | Daihatsu          |
| ✓                            | Rolls-Royce         | ✓ | MaK (Caterpillar) |

| TECHNICAL DATA : DISOLA M 4012 |             |                    |                 |
|--------------------------------|-------------|--------------------|-----------------|
| CHARACTERISTICS                | METHODS     | UNITS              | TYPICAL VALUES* |
| S.A.E. Grade                   | —           | —                  | 40              |
| Density at 15°C                | ISO 3675    | kg/m <sup>3</sup>  | 900             |
| Kinematic Viscosity at 40°C    | ISO 3104    | mm <sup>2</sup> /s | 145             |
| Kinematic Viscosity at 100°C   | ISO 3104    | mm <sup>2</sup> /s | 14.2            |
| Flash Point (COC)              | ASTM D 92   | °C                 | >= 230          |
| Pour Point                     | ISO 3016    | °C                 | -9              |
| BN                             | ASTM D 2896 | —                  | 12              |

\*The specifications above are for illustrative purposes and communicated for information only.

## CUSTOMER BENEFITS

|   |   |
|---|---|
| ✓ | The Disola M range exceeds the CF specification defined by the American Petroleum Institute (API).  |
| ✓ | The ability to reduce heavy deposit build-up in an engine creates savings via a reduction in maintenance costs.   |
| ✓ | The product offers excellent resistance to the negative effects of residual fuel contamination, along with excellent thermal resistance and oxidation resistance.                   |
| ✓ | The stable viscosity of Disola M range means that in service fewer top-ups are needed.  |
| ✓ | The product is also very water resistant, with outstanding demulsibility capacity, enabling rapid removal of water after an ingress and the maintenance of good engine performance. |

## GENERAL RECOMMENDATIONS

### COMPATIBILITY

Compatible with generally available trunk piston lubricants.

Please consult your Lubmarine Lubrication Engineer should you have any questions.

### STORAGE

This product should be stored under cover in clean, dry conditions and protected from frost.

Recommended storage temperature range is 5°C to 50°C.

Drums that are stored on deck should be raised on pallets and covered to protect from the elements.

## COMPLIMENTARY PRODUCTS AND SERVICES

|   |  |
|---|--|
| ✓ | WT Supra – Innovative and environmentally friendly cooling system inhibitor concentrate.   |
| ✓ | LubDiag – Oil Analysis – Laboratory based used oil analysis program.   |
| ✓ | LubInsight – Suite of onboard testing equipment.   |
| ✓ | LubSkills – Lubmarine Engineers are on hand at worldwide locations to assist with lubrication concerns.  |
| ✓ | Lube On Ship – Visualize your lubricants needs aboard Lubmarine's innovative virtual vessel.<br><a href="http://lubmarine.totalenergies.com/lube-on-ship">lubmarine.totalenergies.com/lube-on-ship</a> |

