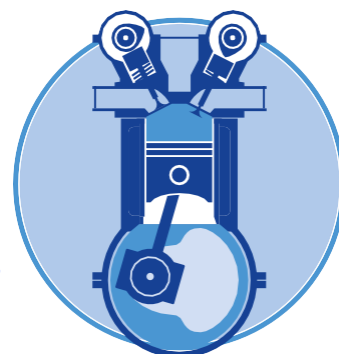


# Aurelia FE 4020

Innovative, newly formulated Trunk Piston Engine Oil delivering fuel economy savings.



## APPLICATIONS

Lubrication of four stroke medium speed engines in marine and power generation applications using low sulfur residual fuels.

Engines using residual heavy fuel oil with low sulfur content and distillates. It is also suitable for dual fuel 4-stroke engines.

## FEATURES AND BENEFITS

Aurelia FE 4020 is a uniquely formulated lubricant typically delivering 1.5% reduction in fuel consumption when compared to equivalent conventional products.\*

Aurelia FE 4020 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.

*\*Weighted average of measured fuel savings at different engine loads, according to E3 cycle as defined by IMO/MARPOL\* Methodology validated by Bureau Veritas.*

## SPECIFICATIONS AND APPROVALS

|   |     |  |  |
|---|-----|--|--|
| ✓ | MaK |  |  |
| ✓ |     |  |  |

## TECHNICAL DATA : Aurelia FE 4020

| CHARACTERISTICS              | METHODS    | UNITS              | TYPICAL VALUES* |
|------------------------------|------------|--------------------|-----------------|
| S.A.E. Grade                 | —          | —                  | 40              |
| Density at 15°C              | ASTM D4052 | kg/m <sup>3</sup>  | 869             |
| Kinematic Viscosity at 40°C  | ASTM D445  | mm <sup>2</sup> /s | 79.3            |
| Kinematic Viscosity at 100°C | ASTM D445  | mm <sup>2</sup> /s | 13.5            |
| Flash Point (COC)            | ASTM D92   | °C                 | ≥ 220           |
| Pour Point                   | ASTM D97   | °C                 | ≤ -12           |
| TBN                          | ASTM D2896 | mgKOH/g            | 20              |

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

## CUSTOMER BENEFITS

|   |                                                                                                                                          |
|---|------------------------------------------------------------------------------------------------------------------------------------------|
| ✓ | Proven Fuel Economy of 1.5%* measured on a bench test engine following MARPOL IV E3 load cycle, methodology validated by Bureau Veritas. |
| ✓ | Superior engine protection and cleanliness.                                                                                              |
| ✓ | Exceptional thermal stability and detergency, preventing varnish formation.                                                              |
| ✓ | Minimal deposit formation ensured by excellent cleanliness of hot engine components.                                                     |
| ✓ | Excellent thermal resistance and oxidation resistance.                                                                                   |
| ✓ | Excellent anti-wear protection and corrosion resistance.                                                                                 |

## GENERAL RECOMMENDATIONS

### COMPATIBILITY

Compatible with comparable engine oils. Mixing Aurelia FE with a traditional lubricant will impact the fuel economy benefits significantly.

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. <a href="https://lubmarine.totalenergies.com/lube-on-ship">https://lubmarine.totalenergies.com/lube-on-ship</a> |