

## VIRO-TEC Fully Synthetic Diesel Engine Oil SAE 5W30 FA-4

### Product Description

**VIRO-TEC 5W30 FA-4** is a high-performance, low-friction oil specially formulated for Euro 6 commercial diesel engines operating under heavy loads. It incorporates advanced wear-protection technology to ensure exceptional piston cleanliness, prolong engine service life, and reduce emissions. Its low High-Temperature High-Shear (HTHS) viscosity maximizes fuel efficiency while minimizing maintenance costs through extended oil change intervals. VIRO-TEC 5W30 FA-4 is ideal for year-round use, but it is not backward compatible with older engine models.

### Application

- Suitable for high-load Euro 6 commercial vehicle diesel engines, including Mercedes-Benz trucks and buses with engine types OM 470, 471, 473, 934, 936, and 936h.
- Designed for engines requiring API FA-4 specifications and is not backward compatible.

### Performance Benefits

- **High Stability to Aging:** Ensures consistent performance over extended intervals.
- **Superior Wear Resistance:** Protects engine components under extreme loads.
- **High Cleaning Efficiency:** Maintains piston cleanliness for optimal performance.
- **Fuel Efficiency:** Reduces fuel consumption and emissions.
- **Extended Engine Life:** Provides long-lasting protection against wear and deposits.
- **Minimized Maintenance Costs:** Allows for longer oil change intervals, reducing downtime.

### Performance Standards and Approvals

#### Meets and Approvals:

- API FA-4/ SN
- DTFR 15C130 (228.61)
- Volvo VDS-5 , Cummins CES 20087
- Detroit Diesel DFS 93K223
- DDC DFS 93K223

### Typical Properties

| Property                    | Method        | Units              | Value                   |
|-----------------------------|---------------|--------------------|-------------------------|
| SAE Class (Engine Oils)     | SAE J300      | -                  | 5W-30                   |
| Density @ 15°C              | DIN 51757     | g/cm <sup>3</sup>  | 0.8468                  |
| Kinematic Viscosity @ 40°C  | ASTM D7042    | mm <sup>2</sup> /s | 69.96                   |
| Kinematic Viscosity @ 100°C | ASTM D7042    | mm <sup>2</sup> /s | 12.18                   |
| Viscosity @ -35°C (MRV)     | ASTM D4684    | mPas               | 25,000                  |
| Viscosity @ -30°C (CCS)     | ASTM D5293    | mPas               | 5800                    |
| Viscosity Index             | DIN ISO 2909  | -                  | 173                     |
| HTHS @ 150°C                | ASTM D5481    | mPas               | 3.1                     |
| Pour Point                  | DIN ISO 3016  | °C                 | -42                     |
| Flash Point                 | DIN ISO 2592  | °C                 | 230                     |
| Evaporation Loss (Noack)    | CEC-L-40-A-93 | %                  | 9.50                    |
| Total Base Number (TBN)     | DIN ISO 3771  | mg KOH/g           | 10.12                   |
| Sulfate Ash                 | DIN 51575     | g/100g             | 0.46                    |
| Color Number (ASTM)         | DIN ISO 2049  | -                  | L 3.0                   |
| Oil Base                    | -             | -                  | Advanced Full Synthetic |



## Health, Safety and Environment

- Avoid prolonged or repeated skin contact with used oil.
- Use protective gloves and wash exposed skin thoroughly after handling.
- Do not dispose of used oil in drains or the environment. Take it to an authorized collection point.

## Care and Handling

- Store in a cool, dry place, away from direct sunlight and extreme temperatures (not exceeding 60°C).
- Drums should be stored horizontally to prevent contamination and preserve labeling.

