



# EXTREME

## **TEC-GUARD EXTREME SYNTHETIC DIESEL OIL**

**TEC-GUARD® Extreme Synthetic Diesel Oil** is formulated to reduce wear and oil consumption in diesel engines used in a wide range of service, including on- and off-road applications. It is designed for use with all modern emissions-control systems, helping them operate properly and last as designed.

### **Product Benefits**

- Provides improved wear protection, oxidation resistance, aeration control and viscosity control compared to CJ-4 oils.
- Formulated with high levels of zinc and phosphorus additives to protect against wear.
- Resists the effects of extreme heat to help reduce oil consumption.
- Increased dispersancy helps prevent soot from agglomerating into large, wear-causing particles for excellent engine protection.
- Provides better cold-flow properties than conventional oils for faster startup protection and improved cold-weather efficiency.
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### **Protects Against Wear**

**TEC-GUARD® Extreme Synthetic Diesel Oil** is formulated with durable synthetic base oils and premium additives. It helps minimize

viscosity changes while holding soot particles in suspension, helping prevent them from forming larger particles that wear piston rings, cylinders and other critical components. By resisting wear, it helps maintain engine compression for maximum power and service life.

### **Helps Reduce Oil Consumption**

Its premium synthetic base oils naturally resist volatility (burn off) in the presence of elevated heat, reducing oil consumption. As a result, the engine remains cleaner to run more efficiently and deliver long life, while the need to top-off the engine between oil changes is reduced, decreasing maintenance and costs.

### **Excels in Extreme Temperatures**

This oil provides excellent all-around protection in both hot and cold temperatures. Compared to conventional oils, it withstands heat better and resists oxidation for long oil life. It helps engines remain cleaner and last longer, delivering maximum power and fuel efficiency. It doesn't contain waxes inherent to conventional oils that thicken in cold weather, meaning it flows readily for fast, reliable cold-start protection. It also helps engines start easier in sub-zero temperatures.



| Specifications                                        | 5W-30 | 10W-30 | 0W-40 | 5W-40 | 15W-40 |
|-------------------------------------------------------|-------|--------|-------|-------|--------|
| API CK-4 ,CJ-4, CI-4+, CF                             | ✓     | ✓      | ✓     | ✓     | ✓      |
| ACEA E9, E7                                           | ✓     | ✓      | -     | ✓     | ✓      |
| MB 228.31                                             | ✓     | ✓      | -     | ✓     | ✓      |
| Caterpillar ECF-3, ECF-2, ECF-1-a                     | ✓     | ✓      | ✓     | ✓     | ✓      |
| Chrysler MS 10902                                     | -     | -      | ✓     | ✓     | ✓      |
| Cummins CES20086, CES 20081                           | ✓     | ✓      | ✓     | ✓     | ✓      |
| Detroit Diesel DFS 93K222, DDC 93K218, 93K215, 93K214 | ✓     | ✓      | -     | ✓     | ✓      |
| Deutz DQC III-10 LA                                   | ✓     | ✓      | -     | ✓     | ✓      |
| Ford WSS-M2C171-F1                                    | ✓     | ✓      | ✓     | ✓     | ✓      |
| Jaso DH-2                                             | ✓     | ✓      | -     | ✓     | ✓      |
| Mack EOS-4.5, EO-0                                    | ✓     | ✓      | ✓     | ✓     | ✓      |
| MAN 3575                                              | ✓     | ✓      | -     | ✓     | ✓      |
| MTU Type 2.1, Type I & II                             | ✓     | ✓      | -     | ✓     | ✓      |
| Volvo VDS-4.5, VDS-4, VDS-3                           | ✓     | ✓      | ✓     | ✓     | ✓      |
| Renault RLD-4, RLD-3                                  | ✓     | ✓      | -     | ✓     | ✓      |

| TYPICAL PROPERTIES                       |            | 5W-30     | 10W-30     | 0W-40      | 5W-40      | 15W-40     |
|------------------------------------------|------------|-----------|------------|------------|------------|------------|
| Kinematic Viscosity @ 100°C, cSt         | ASTM D445  | 12.0      | 11.9       | 15.4       | 15.3       | 15.4       |
| Kinematic Viscosity @ 40°C, cSt          | ASTM D445  | 67.5      | 79.4       | 91.6       | 91.5       | 113.2      |
| Viscosity Index                          | ASTM D2270 | 177       | 145        | 179        | 177        | 142        |
| Cold Crank Simulator, cP                 | ASTM D5293 | 5739 (-3) | 5650 (-25) | 5800 (-35) | 5725 (-30) | 5050 (-20) |
| Flash Point °C (°F) (COC)                | ASTM D92   | 228 (442) | 228 (442)  | 224 (435)  | 224 (435)  | 240 (464)  |
| Fire Point °C (°F) (COC)                 | ASTM D92   | 256 (493) | 250 (482)  | 238 (460)  | 234 (453)  | 250 (482)  |
| Pour Point °C (°F)                       | ASTM D97   | -43 (-45) | -38 (-36)  | -47 (-53)  | -41 (-42)  | -38 (-36)  |
| Noack (% wt loss)                        | ASTM D5800 | 7.1       | 4.7        | 11.0       | 9.8        | 4.8        |
| Four-Ball Wear Test, scar, mm            | ASTM D4172 | 0.47      | 0.46       | 0.47       | 0.47       | 0.46       |
| Total Base Number (TBN)                  | ASTM D2896 | 10.0      | 10.0       | 10.0       | 10.0       | 10.0       |
| High-Temperature/High-Shear Viscosity, c | ASTM D5481 | 3.6       | 3.6        | 4.1        | 4.1        | 4.6        |
| Sulfated Ash, (wt %)                     | ASTM D874  | 1.0       | 1.0        | 1.0        | 1.0        | 1.0        |