

Diesel Fuel Tests

Gold bullets indicate ISO/IEC 17025:2017 Accreditation

| Method | Test Description | Sample Size |
|---------------------|---|-------------|
| ASTM D86 Mod. | Distillation by Gas Chromatograph | 400 mL |
| • ASTM D93 | Flash Point, Pensky-Martins Closed Cup | 250 mL |
| • ASTM D97 | Pour Point | 100 mL |
| • ASTM D130 | Copper Strip Corrosion | 100 mL |
| ASTM D189 | Carbon Residue, Conradson | 50 mL |
| ASTM D240 | Gross Heat of Combustion (Specify BTUs/Gallon) | 50 mL |
| ASTM D240 | Gross Heat of Combustion (Specify BTUs/Pound) | 50 mL |
| ASTM D323 | Reid Vapor Pressure | 125 mL |
| • ASTM D445 | Kinematic Viscosity, 40°C or 100°C, New Oil | 125 mL |
| ASTM D482 | Total Ash | 80 g |
| ASTM D524 | Carbon Residue, Ramsbottom | 50 mL |
| ASTM D613 | Cetane Number | 1 L |
| • ASTM D664 | Acid Number | 50 mL |
| ASTM D893 | Insolubles, Pentane | 25 mL |
| ASTM D974 | Acid Number | 50 mL |
| ASTM D976 & D4737 | Cetane Index (Calculated from D1298 and D86) | 500 mL |
| ASTM D1298 | Density / API Gravity, Hydrometer | 350 mL |
| ASTM D1500 | Color | 150 mL |
| ASTM D2274 | Oxidation Stability (Petroleum Fuel Oil) | 2 L |
| ASTM D2500 | Cloud Point | 100 mL |
| ASTM D2622 | Sulfur by XRF - Wavelength Dispersive | 30 mL |
| ASTM D2624 | Electrical Conductivity | 1000 mL |
| ASTM D2709 | Water and Sediment | 100 mL |
| • ASTM D2887 | Gas Chromatography - Carbon Distribution | 10 mL |
| • ASTM D5133 | Scanning Brookfield Viscosity (-5°C to -40°C) | 50 mL |
| • ASTM D5185 | Elemental Analysis by Inductively Coupled Plasma (No S) | 10 mL |
| ASTM D5186 | Aromatics in Diesel Fuel | 150 mL |
| ASTM D5291 | Carbon, Hydrogen and Nitrogen Content | 30 mL |
| ASTM D5291 | Nitrogen - Carlo Erba | 30 mL |
| • ASTM D5453 | Sulfur | 10 mL |
| • ASTM D5453 & 5762 | Sulfur and Nitrogen Package | 20 mL |
| ASTM D6079 | Lubricity by HFRR | 10 mL |
| ASTM D6217 | Particulate Contamination for Diesel Fuels | 1 L |
| • ASTM D6304 | Water by Karl Fischer | 100 mL |
| ASTM D6371 | Cold Filter Plug Point | 150 mL |
| ASTM D7213 | Boiling Range Distribution of Petroleum Distillates, 100°C to 615°C | 10 mL |
| ASTM D7321 | Particulate Contamination for Biodiesel Fuels | 1 L |
| ASTM D7371 | FAME Fatty Acid Methyl Esters Content in Diesel Fuel Oil | 100 mL |
| • ASTM D7412 | FTIR Analysis, In-Service Fluid, Phosphate Anti-Wear | 50 mL |
| • ASTM D7414 | FTIR Analysis, In-Service Fluid, Oxidation | 50 mL |
| • ASTM D7415 | FTIR Analysis, In-Service Fluid, Sulfate Content | 50 mL |
| ASTM D7462 | Oxidation Stability (Biodiesel) | 2 L |
| ASTM D7462 | Oxidation Stability (Biodiesel - B100 Option) | 2 L |
| ASTM E659 | Auto-Ignition Temperature, Liquid Chemicals | 10 mL |
| EN 14078 | FAME Fatty Acid Methyl Esters Content in Diesel Fuel Oil | 100 mL |
| EN 14112 | Oxidation Stability (Biodiesel & Petroleum Blends) Rancimat | 100 mL |
| EN 15751 | Oxidation Stability (Bio-based FAME Only) Rancimat | 100 mL |



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