



Specification of High Speed Diesel

| Properties | Unit | Test Method | Specification of HSD 0.5% <i>s</i> | Result of HSD 0.5% <i>s</i> | Specification of HSD 0.7% <i>s</i> | Result of HSD 0.7% <i>s</i> |
|-------------------------------------|--------|---------------------|------------------------------------|-----------------------------|------------------------------------|-----------------------------|
| Appearance | - | Visual | Clear | Clear | Clear | Clear |
| ASTM Color | - | ASTM D 1500 | 2.0 Max | 0.5 | | |
| Color Visual | - | Visual | | | Green | Light Yellow |
| Distillation | - | - | | | | |
| 50 % Recovered * | °C | ASTM D 86 | Report | 244.0 | | |
| 50 % Recovered | °C | ASTM D 86 | | | Report | 248.0 |
| 90 % Recovered * | °C | ASTM D 86 | 370 Max | 342.1 | | |
| 90 % Recovered | °C | ASTM D 86 | | | 370 Max | 348.1 |
| Flash Point, Procedure A * | °C | ASTM D 93 | 52 Min | 63.0 | | |
| Flash Point, Procedure A | °C | ASTM D 93 | | | 52 Min | 64.0 |
| Density @ 15 °C | g / ml | ASTM D 4052 | Report | 0.8229 | Report | 0.8255 |
| Specific Gravity @ 60 / 60 °F | - | ASTM D 4052 | 0.81 - 0.87 | 0.8233 | 0.81 - 0.87 | 0.8259 |
| API Gravity | - | ASTM D 4052 | Report | 40.36 | 31.1 - 43.2 | 39.83 |
| Ash Content ** | % wt | ASTM D 482 | | | 0.01 Max | < 0.001 |
| Micro Method carbon residue ** | % wt | ASTM D 4530 | | | 0.05 Max | < 0.05 |
| Corrosion Copper Strip (3h / 50 °C) | - | ASTM D 130 | | | No.1 Max | 1a |
| Total Sulfur Content * | % wt | ASTM D 4294 | 0.5 Max | 0.456 | | |
| Total Sulfur Content | % wt | ASTM D 4294 | | | 0.70 Max | 0.694 |
| Water and Sediment | % vol | ASTM D 2709 | | | 0.05 Max | 0.005 |
| Cetane Index * | - | ASTM D 976 | 47 Min | 50.9 | | |
| Cetane Index | - | ASTM D 976 | | | 47 Min | 51.0 |
| Kinematic Viscosity @ 40 °C | cSt | ASTM D 445 | | | 1.8 - 4.1 | 2.228 |
| Pour Point | °C | ASTM D 5950 | | | 10 Max | -9 |
| Lubricity, WS 1.4 @ 60 °C * | um | CEC F - 06 - A - 96 | | | 460 Max | 427 |
| Dye Content | mg / l | - | | | 12 Min | Undye |

HSD 0.5%*s*

The product passes the specification requirements.

Remark : The properties marked with [*] are tested from sample ID : AL3-1202006307.

HSD 0.7%*s*

To be added lubricity additive and dye on ship to meet specification.

Remark : The properties marked with [*] are tested from sample ID : AL3-1202000767, every month.

The properties marked with [**] are tested from sample ID : AL3-1201001312, every 3 months.