



FUEL, DIESEL, GENERAL PURPOSE ULTRA-LOW SULFUR DIESEL (ULSD)

WSS-M4C132-A

1. SCOPE

The material defined by this specification is a well-refined middle distillate petroleum product containing normal commercial additives.

2. APPLICATION

This specification was released originally for material used as general purpose ULSD diesel fuel for diesel engines in passenger cars and trucks.

3. REQUIREMENTS

This material must meet the requirements for ASTM D 975 Standard Specification for Diesel Fuel Oils, all pertinent local requirements, plus the following:

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 CETANE RATING

3.2.1 Cetane Number, min (ASTM D 613, ISO 5165) 40

3.2.2 Cetane Index, min (ASTM D 976, ASTM D 4737) 40

3.3 TOTAL SULFUR, max (ASTM D 5453) 15 ppm

3.4 ASH CONTENT, max (ASTM D 482 modified) target max of 0.001% mass 0.01% mass

3.5 WATER AND SEDIMENT, max (ASTM D 2709) 0.05% volume

3.6 DISTILLATION (ASTM D 86, ISO 3405)

Volume Evaporated Temperature °C, max

10% Report
50% Report
90% 282 - 338
Final boiling point Report

Date	Action	Revisions
2008 11 25	Activated	



Documents

Raney-Pablo, FNA

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3.7 KINEMATIC VISCOSITY, at 40 °C 1.9 – 4.1 mm²/S
(ASTM D 445, ISO 3104)

3.8 FLASH POINT, min 52 °C
(ASTM D 93, ISO 2719)

3.9 COPPER CORROSION, 3 hours at 50 +/- 1 °C, max 3
(ASTM D 130, ISO 2160)

3.10 COLD TEMPERATURE

Cold temperature properties should be seasonally adjusted as needed for the geographical location per ASTM D 975.

3.10.1 Cloud Point Report
(ASTM D 2500, ISO 3015)

3.10.2 Cold Filter Plugging Point Report
(ASTM D 4539, EN 116)

3.11 CARBON RESIDUE, RAMSBOTTOM, max 0.35% mass
(ASTM D 524, ISO 6615 – on 10% distillation residue)

3.12 LUBRICITY, wear scar diameter at 60 °C, max 520 µm
(ASTM D 6079, ISO 12156 – HFRR) target max of 400 µm

3.13 ODOR

The material shall have the usual characteristic odor of diesel fuel. There shall be no obvious foreign odors.

3.14 ADDITIVES

The material shall contain normal commercial additives.

3.15 COLOR

The material shall be dyed in accordance with Customs and Excise requirements.

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification.

4.1 FLAMMABILITY

This material represents a potential fire hazard. The Manufacturing Engineering Department or other responsible activity shall notify both the Security and Safety Units of its presence to assure that proper fire precautions are provided. The location in which it is used or stored shall be included in the notifications.

4.2 SAMPLING AND SUBMISSION OF SAMPLES
(ISO 3170/3171, ASTM D 4057/D 4177)

4.3 Quality Control records must be made available to Fuels and Lubricants Engineering upon request.