



FMPNo: 1012
per ASTM D 1655, latest
version

Marketing Specification

Distillate, Jet A, High Sulfur (3,000 ppm)

Marketing specification
All Terminals

Property	TestName	Units	Min	Max	Specific	Note#
Acid Number	D 3242 Acidity in Turb Fuel	mg KOH/g		0.10		
Additives - Conductivity	Conductivity Improver					840
Additives - General Note	General Note					607
Appearance	Visual		Clear & Br			229
Aromatics	D 1319 Hydrocarbon Typ by FIA	Vol%		25		
Copper Strip Corrosion	D 130 Cu Str 2 Hr @ 212 F	Rating		1b		
Density @ 15 C	D 1298 Dens, Sp Gr, API by Hyd	kg/m3	775	840		
Dist 10 Vol% Rec, corr	D 86 Dist at Atm Press	Deg F		401		
Dist 50 Vol% Rec, corr	D 86 Dist at Atm Press	Deg F	Report			
Dist 90 Vol% Rec, corr	D 86 Dist at Atm Press	Deg F	Report			
Dist End Pt, corr	D 86 Dist at Atm Press	Deg F		572		
Dist Loss, corr	D 86 Dist at Atm Press	Vol%		1.5		
Dist Residue	D 86 Dist at Atm Press	Vol%		1.5		
Existent Gum	D 381 Gum Content by Jet Evap	mg/100ml		7		
Flash Pt	D 56 Flash Pt by TCC	Deg F	100			
Freeze Pt	D 5972 Freeze Pt by Ph Tech	Deg C		-40		801
JFTOT Press Drop	D 3241 JFTOT@ 260 C	mm Hg		25		821
JFTOT Tube Rating	D 3241 JFTOT@ 260 C	Rating		<3		821
Mercaptan Sulfur	D 3227 Thiol Merc S by Titra	Wt%		0.003		284
MSEP	D 3948 Water Sep by MSEP	Rating	85		@ pt mfg	877
Naphthalenes	D 1840 Naphthalenes by UV	Vol%		3.0		
Net Heat of Combustion	D 3338 Net Heat of Comb	BTU/lb	18,400			834
Smoke Pt	D 1322 Smoke Pt	mm	18			
Sulfur	D 2622 S by X-ray Fluo Spec	Wt%		0.30		
Viscosity @ -4 F (-20 C)	D 445 Kinematic Viscosity	cSt		8.0		
Water Rxn Interface	D 1094 Water Rxn by manual	Rating		1b		
Other - See Note	Other Flash Pt Limits					806
Other - See Note	Referee Methods					843
Other - See Note	Test Tolerances					849

ConocoPhillips

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NoteNo **Note**

- 229 The fuel shall be visually free of undissolved water, sediment and suspended water. The odor of the fuel shall not be nauseating or irritating. No substance of known dangerous toxicity under usual conditions of handling and use shall be present, except as permitted in this specification. (ASTM D 1655, Section 7)
- 284 The Mercaptan Sulfur determination may be waived if the fuel is considered sweet by the Doctor Test described in ASTM D 4952.
- 607 Only those additives specified and within the concentrations noted in Section 5.2 through 5.2.2.1 of the current edition of ASTM D 1655 are permitted. Use of additives permitted by ASTM D 1655 must be clearly indicated on the Certificate of Analysis. The use of any other additives is prohibited.
- 801 Other freezing points may be agreed upon between supplier and purchaser. (ASTM D 1655 Table 1, Note F)
- 806 A higher minimum flash point specification may be agreed upon between purchaser and supplier. (ASTM D 1655 Table 1 Note D)
- 821 JFTOT Thermal stability test shall be conducted for 2.5 hours at a controlled temperature of 260 C (500 F). No peacock or abnormal color deposits are allowed. (ASTM D 1655, Table 1).
- 834 For all grades use either Eq 1 or Table 1 in Test Method D 4529 or Eq 2 in Test Method D 3338. Test Method D 4809 may be used as an alternative. In case of dispute, Test Method D 4809 shall be used. (ASTM D 1655 Table 1 Note H)
- 840 If electrical conductivity additive is used, the conductivity shall not exceed 450 pS/m at the point of use of the fuel. When electrical conductivity additive is specified by the purchaser, the conductivity shall be 50 to 450 pS/m under the conditions at point of delivery. $1 \text{ pS/m} = 1 \times 10^{(-12)} \text{ ohms}^{(-1)} \text{ m}^{(-1)}$
(ASTM D 1655 Table 1 Note L)
- 843 Referee Methods for Jet A are as follows:
Distillation, ASTM D 86; Flash Point, ASTM D 56; Freeze Point, ASTM D 5972 (pending change); Net Heat of Combustion, ASTM D 4809. (ASTM D 1655, section 10 and Table 1)
- For a product satisfying both ASTM D 1655 for Jet A and ASTM D 975 for #1 Diesel Fuel Oil, ASTM D 56 is considered the more severe test method for Flash Point and is the referee method.
- 849 Test results shall not exceed the maximum or be less than the minimum values specified (herein). No allowance shall be made for the precision of the test methods. To determine conformance to the specification requirement, a test result may be rounded to the same number of significant figures as in Table 1 using Practice E 29. Where multiple determinations are made, the average result, rounded in accordance with Practice E 29, shall be used. (ASTM D 1655 Table 1 Note A, cf Section 6.2)
- 877 MSEP requirement at point of manufacture is 70 min if electrical conductivity additive is used (source ASTM D 1655, Table 1)