



Attock Refinery Limited

AFQRJOS Issue 30 (November 2018)

a) British Ministry of Defense Standard DEF STAN 91-091/Issue 10 dated 28 SEP 2018

b) ASTM D1655-16a, Jet A-1.

Sr.No.	Test Description	Unit	Test Method	Specifications	Min / Max
1	Appearance	-	Visual	* Clear & Bright	-
2	Color, Saybolt	-	D156	Report	-
3	Particulate Contamination	mg/L	D5452	1.0	Max.
4	Particulate, ISO Code and Individual Channel count				
	≥4 μm (c)	-	IP565	Report	-
	≥6 μm (c)	-		Report	-
	≥14 μm (c)	-		Report	-
	≥21 μm (c)	-		Report	-
	≥25 μm (c)	-		Report	-
	≥30 μm (c)	-		Report	-
5	Total Acidity	mg KOH/gm		D3242	0.015
6	Aromatics	% v/v	D1319	25	Max.
7	Sulfur Total	% m/m	D4294	0.30	Max.
8	Mercaptan Sulfur	% m/m	D3227	0.0030	Max.
9	Refinery Components at point of manufacture				
	Non Hydroprocessed Components	% v/v	-	Report	-
	Mildly Hydroprocessed Components	% v/v		Report	-
	Severely Hydroprocessed Components	% v/v		Report	-
	Synthetic Components	% v/v		Report	-
Fatty Acid Methyl Ester (FAME)	mg/Kg	D7797		50	Max.

11	Distillation				
	IBP			Report	-
	10% Vol rec			205	Max.
	50% Vol rec	°C	D86	Report	-
	90% Vol rec			Report	-
	End Point			300	Max.
	Residue	% v/v		1.5	Max.
	Loss	% v/v		1.5	Max.
12	Flash Point	°C	IP170	38	Min.
13	Density at 15°C	Kg/m3	D1298	775.0 min to 840.0 max	-
14	Freezing Point	°C	D2386	- 47	Max.
15	Viscosity at -20°C	cSt	D445	8	Max.
16	Specific Energy, net	MJ/Kg	D3338	42.80	Min.
17	Smoke Point	mm	D1322	18	Min.
18	Naphthalenes	% v/v	D1840	3.0	Max.
19	Corrosion, Copper strip, classification (2 hrs at 100 °C)	-	D130	1	Max.
20	Thermal Stability (JFTOT)				
	Control Temperature	°C	D3241	260	Min.
	Filter Pressure Differential,	mm Hg		25	Max.
	Tube Rating (Visual),	-		Less than 3	
Peacock or Abnormal color deposits	-	None		-	
21	Existent Gum	mg/100ml	D381	7	Max.
22	Water separometer Index Without SDA	-	D3948	85	Min.
	Water separometer Index With SDA	-		70	Min.
23	Static Dissipator Additive, Stadis450	mg/l	-	3.0	Max.
24	Electrical Conductivity	pS/m	D2624	50 min to 600 max	-
*	Clear, bright and visually free from solid matter and un-dissolved water at ambient fuel temperature				