

APPENDIX 2
Decree of the Director General of Oil and Gas No. 28.K / 10 / DJM.T / 2016
Regarding the Standards and Quality (Specifications) of the 48 types of diesel oil
fuel that is marketed domestically

No	Test Parameter	Unit	Result limit		Method
			Min	Max	
1	Cetane number/Cetane index		48	-	ASTM D 613 ASTM D 4737
			45	-	
2	Density (at 15°C)	kg/m ³	815	870	ASTMD4052 ASTMD1298
3	Viscosity (at 40°C)		2,0	4,5	ASTM D 445
4	Sulphur Content	%-m/m	-	0,35 ¹⁾ 0,30 ²⁾ 0,25 ³⁾ 0,05 ⁴⁾ 0,005 ⁵⁾	ASTMD4294 ASTMD5453
5	Distillation: 90% Evaporation Volume	°C	-	370	ASTM D 86
6	Flash point	°C	52	-	ASTM D 93
7	Fog Point	°C	-	18	ASTM D 2500
8	Pour Point	°C	-	18	ASTM D 97
9	Carbon Residue	%-m/m		0,1 ⁶⁾	ASTM D 189
10	Water Content	mm/kg	-	500	ASTM D 6304
11	FAME Content	°C	-	20 ⁷⁾	ASTMD7806 ASTMD7371
12	Corrosion Copper Strip	%-massa	-	Kelas 1	ASTM D 130
13	Ash Content	%-m/m		0,01	ASTM D 482
14	Sediment	%-m/m	-	0,01	ASTM D 473
15	Strong Acid Number	mg KOH / g	-	0	ASTM D 664
16	Total Acid Number	mg KOH / g	-	0,6	ASTM D 664
17	Visual Appearance		-	-	-
18	Colour	No. ASTM	96,5	3,0	ASTM D 1500
19	Lubricity (HFRR wear scar dia. @60°C)	mikron		460 ⁸⁾	ASTM D 6079
20	Oxidation Stability	hour	35		EN 15751

General note :

1. Additives must be compatible with engine oil (does not add to the dirtiness of the engine / crust). Additives containing ash forming components are not permitted
2. Handling must be done well to reduce contamination (dust, water, other fuels, etc.)
3. Labeling at the pump must be adequate and defined.

NOTE :

- 1) Limitation of 0.35% m / m, equivalent to 3500 ppm, valid in 2015
- 2) Limitation of 0.30% m / m, equivalent to 3000 ppm, valid on January 1, 2016
- 3) Limitation of 0.25% m / m, equivalent to 2500 ppm, valid on January 1, 2017
- 4) Limitation of 0.05% m / m, equivalent to 500 ppm, valid from January 1, 2021
- 5) Limitation of 0.005% m / m, equivalent to 50 ppm, valid in 2025
- 6) With max FAME 20% v / v, ref: WWFC
- 7) Permen ESDM 12/2015 and its amendments
- 8) This quality parameter applies if sulphur content is less than equal to 500 ppm