

## Spesifikasi MFO 180 (HSFO)

No.	CHARACTERISTICS	UNIT	MIN. LIMIT	MAX. MAX	TEST METHOD
1	Density @ 15°C	kg/m <sup>3</sup>	-	991	ASTM D1298
2	Viscosity @ 50°C	mm <sup>2</sup> /dt	-	180	ASTM D445
3	Sulfur	% m/m	-	4.5	ASTM D1552 / ASTM D2622
4	Pour Point	°C	-	30	ASTM D97
5	Flash Point	°C	60	-	ASTM D93
6	Micro Carbon Residue	% m/m	-	16	ASTM D189
7	Ash	% m/m	-	0.10	ASTM D482
8	Total Sediment Potential	% m/m	-	0.10	ASTM D473
9	Water	% v/v	-	1.0	ASTM D95
10	Vanadium	mg/kg	-	200	AAS
11	Aluminium + Silicon	mg/kg	-	80	ASTM D5184 / AAS

**Reference :**  
*Decree of the Director General of Oil and Gas No.14496K/14/DJM/2008 dated August 21st 2008 concerning Standards and Quality (Specifications) of Fuel Oil Types Marketed Domestically.*

## Spesifikasi MFO 380 (HSFO)

No.	CHARACTERISTICS	UNIT	MIN. LIMIT	MAX. MAX	TEST METHOD
1	Density @ 15 °C	kg/m <sup>3</sup>	-	991	ASTM D1298
2	Viscosity @ 50 °C	mm <sup>2</sup> /dt	-	380	ASTM D445
3	Sulfur	% m/m	-	5.0	ASTM D1552 / ASTM D2622
4	Pour Point	°C	-	40	ASTM D97
5	Flash Point	°C	60	-	ASTM D93
6	Micro Carbon Residue	% m/m	-	20	ASTM D189
7	Ash	% m/m	-	0.15	ASTM D482
8	Total Sediment Potential	% m/m	-	0.10	ASTM D473
9	Water	% v/v	-	1.0	ASTM D95
10	Vanadium	mg/kg	-	300	AAS
11	Aluminium + Silicon	mg/kg	-	80	ASTM D5184 / AAS

**Reference :**  
*Decree of the Director General of Oil and Gas No.14496K/14/DJM/2008 dated August 21st 2008 concerning Standards and Quality (Specifications) of Fuel Oil Types Marketed Domestically.*