

## MARINE DISTILLATE FUELS

Parameter	Unit	Limit	DMX	DMA	DMZ	DMB
Viscosity at 40°C	mm <sup>2</sup> /s	Max	5.500	6.000	6.000	11.00
Viscosity at 40°C	mm <sup>2</sup> /s	Min	1.400	2.000	3.000	2.000
Micro Carbon Residue at 10% Residue	% m/m	Max	0.30	0.30	0.30	-
Density at 15°C	kg/m <sup>3</sup>	Max	-	890.0	890.0	900.0
Micro Carbon Residue	% m/m	Max	-	-	-	0.30
Sulphur <sup>a</sup>	% m/m	Max	1.00	1.50	1.50	2.00
Water	% V/V	Max	-	-	-	0.30 <sup>b</sup>
Total sediment by hot filtration	% m/m	Max	-	-	-	0.10 <sup>b</sup>
Ash	% m/m	Max	0.010	0.010	0.010	0.010
Flash point	0°C	Min	43.0	60.0	60.0	60.0
Pour point, Summer	0°C	Max	-	0	0	6
Pour point, Winter	°C	Max	-	-6	-6	0
Cloud point	°C	Max	-16	-	-	-
Calculated Cetane Index		Min	45	40	40	35
Acid Number	mgKOH/g	Max	0.5	0.5	0.5	0.5
Oxidation stability	g/m <sup>3</sup>	Max	25	25	25	25 <sup>c</sup>
Lubricity, corrected wear scar diameter (wsd 1.4 at 60°C <sup>d</sup> )	um	Max	520	520	520	520 <sup>c</sup>
Hydrogen sulphide <sup>e</sup>	mg/kg	Max	2.00	2.00	2.00	2.00
Appearance			Clear & Bright <sup>f</sup>			<sup>b, c</sup>
<sup>a</sup>	A sulphur limit of 1.00% m/m applies in the Emission Control Areas designated by the International Maritime Organization. As there may be local variations, the purchaser shall define the maximum sulphur content according to the relevant statutory requirements, notwithstanding the limits given in this table.					
<sup>b</sup>	If the sample is not clear and bright, total sediment by hot filtration and water test shall be required.					
<sup>c</sup>	Oxidation stability and lubricity tests are not applicable if the sample is not clear and bright.					
<sup>d</sup>	Applicable if sulphur is less than 0.050% m/m.					
<sup>e</sup>	Effective only from 1 July 2012.					
<sup>f</sup>	If the sample is dyed and not transparent, water test shall be required. The water content shall not exceed 200 mg/kg (0.02% m/m).					

Source: ISO 8217 Fourth Edition 2010-06-15

Petroleum products - Fuels (class F) - Specifications of marine fuels