

**ISO 8217 FUEL STANDARD, THIRD EDITION 2005,  
FOR MARINE DISTILLATE FUELS & FOR MARINE RESIDUAL FUELS**

**MARINE DISTILLATE FUELS**

Parameter	Unit	Limit	DMX	MGO	DMB	DMC
Density at 15 °C	kg/m <sup>3</sup>	Max	-	890.0	900.0	920.0
Viscosity at 40 °C	mm <sup>2</sup> /s	Max	5.5	6.0	11.0	14.0
Viscosity at 40 °C	mm <sup>2</sup> /s	Min	1.4	1.5	-	-
Micro Carbon Residue at 10% Residue	% m/m	Max	0.30	0.30	-	-
Micro Carbon Residue	% m/m	Max	-	-	0.30	2.50
Water	% V/V	Max	-	-	0.3	0.3
Sulfur <sup>c</sup>	% (m/m)	Max	1.0	1.5	2.0	2.0
Total Sediment Existent	% m/m	Max	-	-	0.10	0.10
Ash	% m/m	Max	0.01	0.01	0.01	0.05
Vanadium	mg/kg	Max	-	-	-	100
Aluminium + Silicon	mg/kg	Max	-	-	-	25
Flash point	°C	Min	43	60	60	60
Pour point, Summer	°C	Max	-	0	6	6
Pour point, Winter	°C	Max	-	-6	0	0
Cloud point	°C	Max	-16	-	-	-
Calculated Cetane Index		Min	45	40	35	-
Appearance			Clear & Bright		-	-
Zinc <sup>d</sup>	mg/kg	Max	-	-	-	15
Phosphorus <sup>d</sup>	mg/kg	Max	-	-	-	15
Calcium <sup>d</sup>	mg/kg	Max	-	-	-	30
<sup>c</sup>	A sulfur limit of 1.5% m/m will apply in SO <sub>x</sub> Emission Control Areas designated by the International Maritime Organization, when its relevant Protocol comes into force. There may be local variations					
<sup>d</sup>	The Fuel shall be free of ULO. A Fuel is considered to be free of ULO if one or more of the elements are below the limits. All three elements shall exceed the limits before deemed to contain ULO.					