

Characteristics		Unit	Limit	Category ISO -F -				Test Method Reference
				DMX	DMA	DMZ	DMB	
Kinematics Viscosity at 40°C ^a		mm ² /s	max	5,500	6,000	6,000	11,000	ISO 3104
			min	1,400	2,000	3,000	2,000	
Density at 15°C		kg/m ³	max	-	890,0	890,0	900,0	ISO 3675 or ISO 12185
Cetene Index		-	min	45	40	40	35	ISO 4264
Sulfur ^b		mass %	max	1,00	1,50	1,50	2,00	ISO 8754 or ISO 14596
Flash Point		°C	min	43,0	60,0	60,0	60,0	ISO 2719
Hydrogen		mg/kg	max	2,00	2,00	2,00	2,00	IP 570
Acid Number		mg KOH/g	max	0,5	0,5	0,5	0,5	ASTM D664
Total Sediment By Hot Filtration		mass %	max	-	-	-	0,10 ^d	ISO 10307 - 1
Oxidation Stability		g/m ³	max	25	25	25	25 ^e	ISO 12205
Micro Carbon Residue at 10% Residue (% m/m)		mass %	max	0,30	0,30	0,30	-	ISO 10370
Micro Carbon Residue		mass %	max	-	-	-	0,30	ISO 10370
Cloud Point		mass %	max	-16	-	-	-	ISO 3015
Pour Point (Upper) ^c	Winter Quality	°C	max	-	-6	-6	0	ISO 3016
	Summer Quality	°C	max	-	0	0	6	ISO 3016
Appearance		-	-	Clear and Bright ^h			^{d, e, f}	-
Water		Volume %	max	-	-		0,30 ^d	ISO 3733
Ash		mass %	max	0,010	0,010	0,010	0,010	ISO 6245

a 1 mm²/s = 1 cSt

b Notwithstanding the limits given, the purchaser shall define the maximum sulfur content in accordance with relevant statutory limitations.

c Purchasers should ensure that this pour point is suitable for the equipment on board, especially if the ship operates in cold climates.

d If the sample is not clear and bright, the total sediment by hot filtration and water tests shall be required.

e If the sample is not clear and bright, the test cannot be undertaken and hence the oxidation stability limit shall not apply.

f If the sample is not clear and bright, the test cannot be undertaken and hence the lubricity limit shall not apply.

g This requirement is applicable to fuels with a sulfur content below 500 mg/kg (0.050 mass %).

h If the sample is dyed and not transparent, then the water limit and test method as per guided by international inspection company (SGS equivalent)