

ANEKSI 1

Specifikimet teknike të produktit HFO sipas ISO 8217 2017 (ISO RME)

Përmbajtje e sqfurit e lejuar: **max. 0.5%**

Testimet e kampioneve: **sipas standardit të referuar**

ISO 8217 2017 FUEL STANDARD

ISO 8217 2017 Fuel Standard
for marine residual fuels

REQUIREMENTS FOR MARINE RESIDUAL FUELS

Characteristic	Unit	Limit	Category ISO-F-											Test method reference
			RMA	RMB	RMD	RME	RMG				RMK			
			10	30	80	180	180	380	500	700	380	500	700	
Kinematic viscosity at 50 °C	mm ² /s ^a	Max	10,00	30,00	80,00	180,0	180,0	380,0	500,0	700,0	380,0	500,0	700,0	ISO 3104
Density at 15 °C	kg/m ³	Max	920,0	960,0	975,0	991,0	991,0				1010,0			ISO 3675 or ISO 12185; see 6.1
CCAI	–	Max	860	860	860	860	870				870			see 6.2
Sulfur ^b	mass %	Max					Statutory requirements							ISO 8754 or ISO 14596 or AS M D4284; see 6.3
Flash point	°C	Min	60,0	60,0	60,0	60,0	60,0				60,0			ISO 2719; see 6.4
Hydrogen sulfide	mg/kg	Max	2,00	2,00	2,00	2,00	2,00				2,00			IP 570; see 6.5
Acid number ^c	mg KOH/g	Max	2,5	2,5	2,5	2,5	2,5				2,5			ASTM D664; see 6.6
Total sediment – Aged	mass %	Max	0,10	0,10	0,10	0,10	0,10				0,10			ISO 10307-2; see 6.8
Carbon residue – Micro method	mass %	Max	2,50	10,00	14,00	15,00	18,00				20,00			ISO 10370
Pour point (upper) ^d	winter	°C	0	0	30	30	30				30			ISO 3018
	summer	°C	6	6	30	30	30				30			
Water	volume %	Max	0,30	0,50	0,50	0,50	0,50				0,50			ISO 3733
Ash	mass %	Max	0,010	0,070	0,070	0,070	0,100				0,150			ISO 6245
Vanadium	mg/kg	Max	50	150	150	150	350				450			IP 501, IP 470 or ISO 14597; see 6.14
Sodium	mg/kg	Max	50	100	100	50	100				100			IP 501, IP 470; see 6.15
Aluminium plus silicon	mg/kg	Max	25	40	40	50	60				80			IP 501, IP 470 or ISO 10478; see 6.16
Used lubricating oil (ULO): – Calcium and zinc; or – Calcium and phosphorus	mg/kg	–					Calcium > 30 and zinc > 15 or Calcium > 30 and phosphorus > 15							IP 501 or IP 470, IP 500; see 6.17

^a 1 mm²/s = 1 cSt

^b The purchaser shall define the maximum sulfur content in accordance with relevant statutory limitations. See Introduction.

^c See Annex E.

^d Purchasers should confirm that this pour point is suitable for the ship's intended area of operation.