



HSFO

The alternative to using marine fuels with such low sulfur content in ECAs is the use of scrubbers. This technology involves injecting water into the exhaust stream to reduce sulfur and other emissions. However, refitting a ship with this technology costs several million euros and means that the ship is docked for a period of time, which leads to a loss in revenue and income for the ship owners. On the other hand, a scrubber allows higher-sulfur marine fuels to be used. In this context, such heavy fuel oils are designated as high-sulfur fuel oils (HSFO), which have a maximum sulfur content of 3.5% as permitted under ISO 8217.

TYPICAL SPECIFICATION			
CHERCTRISTICS	UNIT	SPECIFICATION	TEST METHODE
Density at 15 ° C	kg/L	max 0.9910	IP 385
Kinematic Viscosity at 50 ° C (122 ° F)	CST	max 380	ASTM D445
Total Sulfur Content	% (m/m)	MAX 3.50	ASTM D4294
Flash Point by PMCC	% v/v	min 60	ASTM D95
Pour Point	° C	Max 30	ASTM D93
Carbon Residue- Micro Methode	° C	Max 18	ASTM D97
Ash	% (m/m)	Max 0.10	ASTM D4530
Potential Total Sediment	% (m/m)	Max 0.10	ASTM D482
Vanadium	% (m/m)	max 350	IP 390 Procedure A
Aluminium	mg/kg	...	IP 501
Silicon	mg/kg	...	IP 501
Aluminium + Silicon	mg/kg	max 60	IP 501
Zinc	mg/kg	max 15	IP 501
Phosphorus	mg/kg	max 15	IP 501
Calcium	mg/kg	max 30	IP 501
Sodium	mg/kg	max 100	IP 501
Calculated Carbon Aromaticity Index (CCAI)	mg/kg	max 870	Calculation
Acid Number (inflection end-point)	mg KOH/g	max 2.5	ASTM D664 (Methode A)
Hydrogen Sulfide Content - (Procedure A)	mg/kg	max 2.0	IP 570