BUNKERIST
Global Fueling and Lubricating Specialist

Marine fuel oil ISO 8217:2012

Test	Unit	Test method			Limits	Grade										
		ASTM	IP	ISO		RMA 10	RMB 30	RMD 80	RME 180	RMG 180	RMG 380	RMG 500	RMG 700	RMK 380	RMK 500	RMK 700
Viscosity at 50°C	mm^2/s (cSt)	D445	71	3104	max.	10.00	30.00	80.00	180.0	180.0	380.0	500.0	700.0	380.0	500.0	700.0
Density at 15°C	kg/m^3	D1298	160	3675 or 12185	max.	920.0	960.0	975.0	991.0	991.0	991.0	991.0	991.0	1010.0	1010.0	1010.0
CCAI	–	Calculated			max.	850	860	860	860	870	870	870	870	870	870	870
Sulfur	mass %	D4294	336	8754, 14596	max.	Statutory requirements										
Flash point	°C	D93	34	2719	min.	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Hydrogen sulfide	mg/kg	–	570	–	max.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Acid number	mg KOH/g	D664	–	–	max.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total sediment aged	mass %	–	390	10307-2	max.	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Carbon residue, micro	mass %	D4530	398	10370	max.	2.50	10.00	14.00	15.00	18.00	18.00	18.00	18.00	20.00	20.00	20.00
Pour point Winter quality Summer quality	 °C °C	 D97 D97	 15 15	 3016 3016	 max. max.	 0 6	 0 6	 30 30	 30 30	 30 30	 30 30	 30 30	 30 30	 30 30	 30 30	 30 30
Water	volume %	D95	74	3733	max.	0.30	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Ash	mass %	D482	4	6245	max.	0.040	0.070	0.070	0.070	0.100	0.100	0.100	0.100	0.150	0.150	0.150
Vanadium	mg/kg	–	501, 470	14597	max.	50	150	150	150	350	350	350	350	450	450	450
Sodium	mg/kg	–	501, 470	–	max.	50	100	100	50	100	100	100	100	100	100	100
Aluminium + silicon	mg/kg	D5184	501, 470	10478	max.	25	40	40	50	60	60	60	60	60	60	60
Used lubricating oil Calcium + zinc Calcium + phosphorus	 mg/kg mg/kg	 – –	 501 or 470 500	 – –	 – –	The fuel shall be free of ULO. A fuel shall be considered to contain ULO when either one of the following conditions is met: Calcium > 30 and zinc > 15 or calcium > 30 and phosphorus > 15										

Specifications

Bunkerist Trading and Brokering Ltd. supply marine fuels against the above mentioned specifications in case of a request which apply to fuels manufactured by the local storing and blending plants, physical suppliers. These specifications are regularly reviewed to encompass both equipment-builder and industry requirements, including standard setting organizations such as ASTM and ISO. These specifications comply with ISO 8217:2012. Therefore, please note that these specifications are subject to change without notice. In addition, local conditions may require deviation from published specifications or may offer a higher quality, but without guarantee. Please contact your Bunkerist Trading and Brokering representative regarding current typical qualities at your nominated bunker port. Final product quality specifications are subject to order confirmation details. This document is supplied for information only and is not part of any contract for the supply of marine fuels. Any warranties as to the quality of marine fuels supplied will be set out separately in a contract with the relevant Bunkering Trading and Brokering.

Test methods

The test methods are bound to local storing and blending plants, physical suppliers worldwide where physical bunker supply takes place. The methods are similar, but not necessarily identical to those in the ISO specifications.

Density

All densities are in units of kg/m3 at 15ºC. To convert these units to kg/L divide by 1000. Viscosity Local practice may dictate viscosity measurement at other temperatures with conversion to 50ºC.

Dispute

In case of dispute, the method stated by the physical supplier will be used to confirm the original measurement. Original measurement temperature will be used in the case of dispute. Calculated values properties of interest to operators may be approximated by calculation from measured specification properties. These include calculated energy content and CCAI. Bunkerist Trading and Brokering Ltd. does not calculate these values and does not recognize calculated energy content as a specification.

Sampling

Sampling and delivery Bunkerist Trading and Brokering Ltd. suggests continuous drip samplers as the preferred method for obtaining representative samples of a marine fuel oil delivery.

Survey

Purchasers may wish to use the services of an independent survey at delivery. Quantity measurement is according to the T/Cs of the Bunkerist Trading and Brokering's sated on the website www.bunkerist.com