

Residual & Distillate Marine Fuels - ISO Fuel Standard 8217:2017 (E)

| Parameter | Unit | Limit | IF500 | | IF380 | | IF180 | | MGO | | |
|--|--------------------|---------|---|--------|--------|--------|--------|--------|------------------|---------|-----|
| | | | RMG500 | RMK500 | RMG380 | RMK380 | RME180 | RMG180 | DMA/DFA* | DMX | |
| Density - at 15°C | kg/m ³ | max | 991 | 1010 | 991 | 1010 | 991 | | 890 | - | |
| Viscosity - at 50°C - at 40°C | mm ² /s | max | 500 | | 380 | | 180 | | - | - | |
| | | min/max | - | | - | | - | - | 2.0/6.0 | 1.4/5.5 | |
| CCAI | - | max | 870 | | 870 | | 860 | 870 | - | - | |
| Flash Point | °C | min | 60 | | 60 | | 60 | | 60 | 43 | |
| Pour Point - Winter - Summer | °C | max | 30 | | 30 | | 30 | | -6 | - | |
| | | | 30 | | 30 | | 30 | | 0 | - | |
| Carbon Residue - Micro Method - Micro Method | mass% | max | 18 | 20 | 18 | 20 | 15 | 18 | - | - | |
| | | | - | - | - | - | - | - | - | - | |
| Carbon Residue - Micro Method on 10% | mass% | max | - | - | - | - | - | - | 0.3 | | |
| Ash | mass% | max | 0.1 | 0.15 | 0.1 | 0.15 | 0.07 | 0.1 | 0.01 | | |
| Water | volume % | max | 0.5 | | 0.5 | | 0.5 | | - | - | |
| Sulfur | mass% | max | | | | | | | | 1.0 * | 1.0 |
| Vanadium | mg/kg | max | 350 | 450 | 350 | 450 | 150 | 350 | - | - | |
| Sodium | mg/kg | max | 100 | | 100 | | 50 | 100 | - | - | |
| Sediment - Total Sediment Aged - Total Sediment by Hot Filtration | mass% | max | 0.1 | | 0.1 | | 0.1 | | - | - | |
| | | | - | - | - | - | - | - | - | - | |
| Aluminium plus Silicon | mg/kg | max | 60 | | 60 | | 50 | 60 | - | - | |
| Hydrogen Sulfide | mg/kg | max | 2.0 | | 2.0 | | 2.0 | | 2.0 | | |
| Acid Number | mg KOH/g | max | 2.5 | | 2.5 | | 2.5 | | 0.5 | | |
| Oxidation Stability | g/m ³ | max | - | - | - | - | - | - | 25 | | |
| Fatty Acid Methyl Ester (FAME)* | volume % | max | - | - | - | - | - | - | - / 7.0 * | -* | |
| Lubricity | µm | max | - | - | - | - | - | - | 520 | | |
| Cetane Index | - | min | - | - | - | - | - | - | 40 | 45 | |
| Cloud Point* - Winter* - Summer* | °C | max | - | | - | | - | | report * | -16 * | |
| | | | - | | - | | - | | -* | -16 * | |
| Cold Filter Plugging Point* - Winter* - Summer* | °C | max | - | | - | | - | | report * | -* | |
| | | | - | | - | | - | | -* | -* | |
| Appearance | - | - | - | - | - | - | - | - | Clear and Bright | | |
| Used Lubricating Oil (ULO) calcium and zinc; or calcium and phosphorus | mg/kg | - | The fuel shall be free from 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 | | | | | | | | |

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* Denotes changes to the last edition

