

# **Delivery Specification SF - 43**

## Standard Diesel

#### **Foreword**

This document has been prepared taking into consideration OMV Petrom's strategy relating to products quality and based on the European Standard EN 590:2022 – Automotive fuels – Diesel – Requirements and test methods.

This is version number twelve of the document OMV Petrom Delivery Specification SF - 43.

The change between this version and the previous one relates to technical and editorial changes aligned to EN 590.

#### 1. Scope

1.1 This Standard specifies requirements and test methods for automotive diesel fuel for use in diesel engine vehicles designed to run on automotive diesel fuel containing up to 7.0 % (V/V) Fatty Acid Methyl Ester.

On the domestic market the fuel will be distributed under the commercial names "Standard Diesel".

- **1.2** For the purposes of this Standard, the terms "% (m/m)" and " % (v/v)" are used to represent respectively the mass fraction and the volume fraction.
- 1.3 The addition of an adequate additive allows reach the limit for electrical conductivity.

### 2. Normative references

This Standard incorporates provisions from other publications. These normative references are cited at the appropriate places in the text. The latest edition of the referenced document applies.

# 3. Sampling

Samples shall be taken as described in EN ISO 3170 or EN ISO 3171, and/or in accordance with the requirements of national standards or regulations.

### 4. Requirements and test methods

- **4.1** The use of dyes and markers is allowed.
- 4.2 In order to improve the performance quality the use of additives is allowed.
- 4.3 Rules used to certify product quality
- 4.3.1 Test methods are indicated in Table 1.

The National Standard applicable presents the correspondence between international or European test methods nominated in this document.

4.3.2 In order to certify product quality for each batch will be issued the Conformity Certificate.

According to ISO 3170: 2004, point 3.4, a batch "containing a product of a single type and composition and of a single manufactured lot, or of a single delivery".

When tested, the product must be in accordance with all the limits specified in Table 1.

Otherwise, the batch will be rejected and it is not allow issue the Conformity Certificate.



Table 1. Requirements and test methods - Standard Diesel

Property	Unit	Limits		
		minimum	maximum	Test method <sup>a</sup>
Cetane number		51.0	_	EN ISO 5165 (litigation method) EN 17155
Cetane index		46.0	_	EN ISO 4264
Density at 15 °C	kg/m³	820,0	845,0	EN ISO 12185 (litigation method) EN ISO 3675
		815,0 <sup>b</sup>		
Polycyclic aromatic hydrocarbons	% (m/m)	-	8,0	EN 12916
Sulfur content	mg/kg	_	10,0	EN ISO 20846 (litigation method) EN ISO 20884
Manganese content	mg/l	-	2,0	EN 16576
Flash point	°C	above	55,0	EN ISO 2719
Carbon residue (on 10 % distillation residue)	% (m/m)	-	0.30	EN ISO 10370
Ash content	% (m/m)	_	0.010	EN ISO 6245
Water content	% (m/m)	_	0.020	EN ISO 12937
Total contamination	mg/kg	_	24	EN 12662
Copper strip corrosion (3 h at 50 °C)	rating	clas	s 1	EN ISO 2160
Oxidation stability	g/m³	_	25	EN ISO 12205
	h	20,0	_	EN 15751
Lubricity, wear scar diameter (WSD) at 60 °C	μm	1	460	EN ISO 12156 - 1
Viscosity at 40 °C	mm²/s	2.000	4.500	EN ISO 3104
Distillation  ➤ recovered at 250 °C  ➤ recovered at 350 °C  ➤ 95%(V/V) recovered at	%(V/V) %(V/V °C	- 85 -	<65 - 360,0	EN ISO 3405
Fatty acid methyl ester (FAME) content °	%(V/V)	to be reported		EN 14078
Cold filter plugging point, CFPP				
> summer: 1 May - 30 September		-	5	
> transition: 15 March - 30 April and 1 October - 15 November	°C	-	<u>D</u> <u>E</u> -10; - 15	EN 116
> winter: 16 November - 14 March		-	<u><b>F</b></u> -20	
Electrical conductivity	pS/m	50	-	ASTM D 2624 (litigation method) ASTM D 4308

# Legend Table 1

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<sup>&</sup>lt;sup>a</sup> All test methods referred to in this Standard include a precision statement. In cases of dispute, the procedures for resolving the dispute and interpretation of the results based on test method precision, described in EN ISO 4259, shall be used.

Reduction of the minimum density limit for Grades D, E and F from 820.0 Kg/m³ to 815 Kg/m³ (see CFPP property).

<sup>&</sup>lt;sup>c</sup> FAME shall meet the requirements of EN 14214. Biofuel content required by national legislation in force at the time of batch manufacture are fulfilled.