

EFIX DIESEL ^{3,4,7,9}

USE: AS FUEL FOR DIESEL ENGINES

PROPERTY	UM	LIMITS		TEST METHOD					
		Min.	Max.						
Density at 15 °C	kg/m ³	820 800 ⁵	845 845 ⁵	ASTM D 4052-09 ² /ASTM D 1298-99(05) ² /SR EN ISO 3675:02 ² SR EN ISO 3675:02 ² /C91:05 ² /EN ISO 3675:98 ² /ISO 3675:98 ² SR EN ISO 12185:02 ² /EN ISO 12185:96 ² /ISO 12185-96 ²					
Cetane number		51,0	-	ASTM D 613-08 ² /SR EN ISO 5165:01 ² EN ISO 5165:98 ² /ISO 5165:98 ²					
Cetane index		46,0	-	SR EN ISO 4264-08 ² /EN ISO 4264-07 ² /ISO 4264-07 ² ASTM D 4737-09 ²					
Flash point	°C	>55	-	SR EN ISO 2719:03 ² /EN ISO 2719:02 ² /ISO 2719:02 ² ASTM D 93-10a ²					
Cold filter plugging point (CFPP), maxim:	Class	All CFPP grades						ASTM D 6371-05 ²	
		°C	A	B	C	D	E		F
		- Summer ¹	+5	0	-5	-10	-15		-20
		- Intermediate ¹	-	-	-	D	E		-
- Winter ¹	°C	-	-	-	-10	-15	EN 116:97 ²		
	Class,	-	-	-	E	F	0 ¹	1 ¹	
	°C	-	-	-	-15	-20	-20	-26	
Sulfur content	mg/kg	-	10,0	SR EN ISO 20846-04 ² /EN ISO 20846-04 ² /ISO 20846-04 ² SR EN ISO 20884-11 ² /EN ISO 20844-11 ² /ISO 20884-11 ² ASTM D 2622-08 ² /ASTM D 5453-09 ²					
Water content	mg/kg	-	200	SR EN ISO 12937:01 ² /SR ISO 760-94 ²					
Viscosity at 40°C	mm ² /s	2,00 1,50 ⁵	4,50 4,00 ⁵	ASTM D 445-09 ² /SR EN ISO 3104:02 ² /SR EN ISO 3104:02/AC:02 ² /EN ISO 3104-96 ² /ISO 3104-94 ²					
Distillation:									
%(v/v) recovered at 180 °C ⁵	%(v/v)	-	10	ASTM D 86-10a ²					
%(v/v) recovered at 250 °C	%(v/v)	-	<65	SR EN ISO 3405:11 ²					
%(v/v) recovered at 340 °C ⁵	%(v/v)	95	-	EN ISO 3405:11 ²					
%(v/v) recovered at 350 °C	%(v/v)	85	-	ISO 3405:11 ²					
95 % (v/v) recovered at	°C	-	360						
Ash content	%(m/m)	-	0,01	SR EN ISO 6245:03 ² /ASTM D 482-07 ²					
Copper strip corrosion (3 hrs. at 50°C)	rating		class 1	ASTM D 130-04 ² /SR EN ISO 2160:03 ² /EN ISO 2160:98 ² ISO 2160:98 ²					
Carbon residue (in 10% distillation residue)	%(m/m)	-	0,30	SR EN ISO 10370:02 ² /ASTM D 4530-07 ²					
Polycyclic aromatic hydrocarbons	%(m/m)	-	8	SR EN 12916:06 ² /EN 12916-06 ²					
Total contamination	mg/kg	-	24	SR EN 12662:08 ²					
Oxidation stability	g/m ³ h	-	25	ASTM D 2274-03a(2008) ² /SR EN ISO 12205:99 ²					
		20 ⁸	-	SR EN 15751-09 ² /EN 15751-09 ²					
Lubricity, corrected wear scar diameter (wsd 1,4) at 60°C	µm	-	460	ASTM D 6079-04 ² /SR EN ISO 12156-1:07 ²					
Fatty acid-methyl ester (FAME) content	%(v/v)	6)	7	SR EN 14078-10 ²					
Cloud point ⁵ :	°C								
Class 0		-	-10	ASTM D 2500-05 ² /SR EN 23015-97 ²					
Class 1		-	-16	EN 23015-94 ² /ISO 3015-92 ²					

NOTES: **1)** Summer: May 1st – September, 30; Intermediate: October 1st – November 15 and March 15 – April 30; Winter: November 16 – March 14; Class 0: November 16 – March 14; Class 1: November 16 – March 14 **2)** Accredited test by RENAR **3)** During the Winter time, the product will supplementary contain additive against wax deposition **4)** The product contains a set of multipurpose additives which prevent deposits on valves and injection nozzles, having favourable effects upon the fuel consumption and emissions. **5)** Specific for 0 and 1 classes (according to SR EN 590+A1:2010- tabel 3 - arctic climates or with severe winters) **6)** According with GO 935//2011. **7)** Certified product by RAR. **8)** This condition is guaranteed by the manufacturing technology and is checked monthly on an average tanks sample. **9)** Name at the distribution pump: **Efix Diesel**, SR EN 590 and, only for classes 0 and 1, **Efix Winter Diesel**, SR EN 590.

Quality control: control is done on lot.

Each batch will have max. 7,500 tones for delivery in tank wagons or tank capacity for pipelines. The lot will have product of same type.

During testing, the product must comply with all parameters depicted in standard specification for corresponding product/type. If not, the batch is rejected.

In case of litigious, the quality control will be done using the samples kept for these cases, sampling being done in accordance with the sampling procedure.

NOTE: A sample is analyzed in the supplier laboratory and the second is kept for three months after delivery, at buyer's disposal, for an eventual control.

Sampling procedure: according to SR EN ISO 3170:2004 / SR EN ISO 3170:2004/C91:05/ASTM D 4057- 06

Informations about handling, transportation and storage: according to "Safety Data Sheet" FDS-2.6 T.

Quality-environment-safety integrated Management System is certified by Germanischer Lloyd Certification according to the following standards:

- ISO 9001:2008
- ISO 14001:2004
- BS OHSAS 18001:2007

The test lab is accredited by RENAR, in compliance with SR EN ISO/CEI 17025:2005.

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