

## EFIX S 55 DIESEL 3, 4, 8, 9

### USE: AS FUEL FOR DIESEL ENGINES

PROPERTY	UM	LIMITS		TEST METHOD
		Min.	Max.	
Cetane number		55,0 53,0 <sup>5</sup>	-	ASTM D 613-17b <sup>2</sup> / SR EN ISO 5165:01 <sup>2</sup> EN ISO 5165:98 <sup>2</sup> / ISO 5165:98 <sup>2</sup>
Cetane index		46,0	-	SR EN ISO 4264-08/A1:13 <sup>2</sup> / EN ISO 4264-07 <sup>2</sup> ISO 4264-07 <sup>2</sup> / ASTM D 4737-10(16) <sup>2</sup>
Density at 15 °C	kg/m <sup>3</sup>	820,0 800,0 <sup>5</sup>	845,0 845,0 <sup>5</sup>	ASTM D 4052-16 <sup>2</sup> / ASTM D 1298-12b/SR EN ISO 3675:02 / SR EN ISO 3675:02 / C91:05 / EN ISO 3675:98 ISO 3675:98 / SR EN ISO 12185:03 <sup>2</sup> / EN ISO 12185:96 <sup>2</sup> ISO 12185-96 <sup>2</sup>
Polycyclic aromatic hydrocarbons	% (m/m)	-	8,0	SR EN 12916:16 <sup>2</sup> / EN 12916-16 <sup>2</sup>
Sulfur content	mg/kg	-	10,0	SR EN ISO 20846-12 <sup>2</sup> / EN ISO 20846-11 <sup>2</sup> / ISO 20846-11 <sup>2</sup> SR EN ISO 20884-11 <sup>2</sup> / EN ISO 20844-11 <sup>2</sup> / ISO 20884-11 <sup>2</sup> ASTM D 2622-16 <sup>2</sup> / ASTM D 5453-16e1 <sup>2</sup>
Manganese content <sup>7</sup>	mg/l	-	2,0	IP 592-11 <sup>2</sup>
Flash point	°C	Above 55,0	-	SR EN ISO 2719:16 <sup>2</sup> / EN ISO 2719:16 <sup>2</sup> / ISO 2719:16 <sup>2</sup> ASTM D 93-16a <sup>2</sup>
Carbon residue (in 10% distillation residue)	% (m/m)	-	0,30	SR EN ISO 10370-15 <sup>2</sup> / EN ISO 10370-14 <sup>2</sup> / ISO 10370-14 <sup>2</sup> ASTM D 4530-15 <sup>2</sup>
Ash content	% (m/m)	-	0,010	SR EN ISO 6245:03 <sup>2</sup> / EN ISO 6245-02 <sup>2</sup> / ISO 6245-01 <sup>2</sup> ASTM D 482-13 <sup>2</sup>
Water content	% (m/m)	-	0,020	SR EN ISO 12937:01 <sup>2</sup> / SR EN ISO 12937:01 <sup>2</sup> / C91-2014 <sup>2</sup> EN ISO 12937:00 <sup>2</sup> / ISO 12937:00 <sup>2</sup>
Total contamination	mg/kg	-	24	SR EN 12662:14 <sup>2</sup> / EN 12662:14 <sup>2</sup>
Copper strip corrosion (3 h at 50°C)	rating		class 1	ASTM D 130-12 / SR EN ISO 2160:03 <sup>2</sup> / EN ISO 2160:98 <sup>2</sup> ISO 2160:98 <sup>2</sup>
Fatty acid-methyl ester (FAME) content	%(v/v)	<sup>6)</sup>	7	SR EN 14078-14 <sup>2</sup>
Oxidation stability	g/m <sup>3</sup> h	- 20 <sup>7</sup>	25 <sup>7</sup> -	SR EN ISO 12205:99 <sup>2</sup> / EN ISO 12205:96 <sup>2</sup> / ISO 12205:95 <sup>2</sup> SR EN 15751-14 <sup>2</sup> / EN 15751-14 <sup>2</sup>
Lubricity, wear scar diameter (wsd 1,4) at 60 °C	µm	-	460	SR EN ISO 12156-1:16 <sup>2</sup> / EN ISO 12156-1:16 <sup>2</sup> ISO 12156-1:16 <sup>2</sup> / ASTM D 6079-11(16) <sup>2</sup>
Viscosity at 40°C	mm <sup>2</sup> /s	2,000 1,500 <sup>5</sup>	4,500 4,000 <sup>5</sup>	ASTM D 445-17a <sup>2</sup> / SR EN ISO 3104:02 <sup>2</sup> / SR EN ISO 3104:02 / AC:02 <sup>2</sup> / EN ISO 3104-96 <sup>2</sup> / ISO 3104-94 <sup>2</sup>
Distillation:				
% (v/v) recovered at 180 °C <sup>5</sup>	% (v/v)	-	10	ASTM D 86-17 <sup>2</sup>
% (v/v) recovered at 250 °C	% (v/v)	-	<65	SR EN ISO 3405:11 <sup>2</sup>
% (v/v) recovered at 340 °C <sup>5</sup>	% (v/v)	95	-	EN ISO 3405:11 <sup>2</sup>
% (v/v) recovered at 350 °C	% (v/v)	85	-	ISO 3405:11 <sup>2</sup>
95 % (v/v) recovered at	°C	-	360	

Cold filter plugging point (CFPP), maxim:	All CFPP grades							
	Class,	A	B	C	D	E		F
- Summer <sup>1</sup>	°C	+5	0	-5	-10	-15	-20	ASTM D 6371-17a <sup>2</sup>
- Intermediate <sup>1</sup>	Class,	-			D	E	SR EN 116:16 <sup>2</sup>	
	°C	-			-10	-15	EN 116:15 <sup>2</sup>	
- Winter <sup>1</sup>	Class,	-		E	F	0 <sup>1</sup>		
	°C	-		-15	-20	-20		
Cloud point <sup>5</sup> :								
Class 0	°C	-		-10		ASTM D 2500-17a <sup>2</sup> / SR EN 23015-97 <sup>2</sup>		
Class 1		-		-16		EN 23015-94 <sup>2</sup> / ISO 3015-92 <sup>2</sup>		

**NOTES:** 1) Summer: May, 1st – September, 30th; Intermediate October, 1st – November 15th and March, 15th – April 30th; Winter: November 16th – March, 14th; Class 0: November, 16th – March, 14th; 2) Accredited test by RENAR 3) During the Winter time, the product will supplementary contain additive against wax deposition 4) Certified product by RAR 5) Specific for 0 class (according to EN 590 +A1 - tabel 3 – arctic climates or with severe winters) 6) According with in force legislation for Romanian market; according to contract requirements for external market 7) 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 8) This condition is guaranteed by the manufacturing technology and it is checked weekly 9) Trade name: Efix S Diesel 55, SR EN 590 and, for Winter period, Efix S Winter Diesel 55, SR EN 590.

**Quality control:** control is done on lot/batch.

Each batch will be tank size (max. 7,500 tones). The lot (batch) 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.

**Sampling procedure:** SR EN ISO 3170:2004/SR EN ISO 3170:2004/C91:05/ASTM D 4057-12

Information about handling, transportation and storage: according to Safety Data Sheet 2.6 T.

**The integrated Quality-Environment-Occupational Health and Safety Management System** is certified by DNV-GL according to the following standards:

- ISO 9001
- ISO 14001
- BS OHSAS 18001

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

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