

EFIX GASOLINE ^{3, 4, 6, 7}

USE: FUEL FOR SPARK IGNITION ENGINES

PROPERTY	MU	LIMITS		TEST METHOD
		Min.	Max.	
Density at 15 °C	Kg/m ³	720	775	ASTM D 4052-09 ² / ASTM D 1298-99(05) ² SR EN ISO 3675:02 ² / SR EN ISO 3675:02 / 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
Antiknock value:				ASTM D 2699-09 ² / ASTM D 2700-09 ²
RON		95.0	-	SR EN ISO 5164:06 ² / EN ISO 5164:05 ² / ISO 5164:05 ²
MON		85.0	-	SR EN ISO 5163:06 ² / EN ISO 5163:05 ² / ISO 5163:05 ²
Lead content	mg/l	-	5	SR EN 237:05 ² / EN 237:04 ² / ASTM D 3237-06 ²
Benzene content	% (v/v)	-	1.00	SR EN 12177:01 ² / SR EN 12177:01 / AC:02 ² EN 12177:98 ² / SR EN 22854:09 ² / ASTM D 6839-02(07)
Type of hydrocarbons content:				
- Olefins	% (v/v)	-	18.0	SR EN 15553:07 ² / EN 15553:07 ² / SR EN 22854:09 ²
- Aromatics		-	35.0	ASTM D 1319-08 ² / ASTM D 6839-02(07)
Distillation:				
Evaporated at 70 °C (E70)	% (v/v)			
- Summer ¹		20.0	48.0	
- Winter ¹		22.0	50.0	ASTM D 86-09 ²
- transition ¹		20.0	50.0	SR EN ISO 3405:11 ²
Evaporated at 100 °C (Summer, Winter, transition)	% (v/v)	46.0	71.0	EN ISO 3405:11 ² ISO 3405:11 ²
Evaporated at 150 °C (Summer, Winter, transition)	% (v/v)	75.0	-	
Final boiling point	°C	-	210	
Residue of distillation	% (v/v)	-	2	
Vapour Pressure				
- Summer ¹	kPa	45.0	60.0	SR EN 13016-1:08 ² / EN 13016-1:07 ²
- Winter ¹	kPa	60.0	90.0	ASTM D 5191-07 ² / ASTM D 6378-08
- transition ¹	kPa	45.0	90.0	
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 20884-11 ² / ISO 20884-11 ² ASTM D 5453-09 ² / ASTM D 2622-08 ²
Oxidation stability	minutes	360	-	SR EN ISO 7536:01 ² / EN ISO 7536:96 ² / ISO 7536:94 ² ASTM D 525-05 ²
Copper strip corrosion rating (3 hrs at 50 °C)			class 1	SR EN ISO 2160-03 ² / EN ISO 2160-98 ² / ISO 2160-98 ² ASTM D 130-04 ²
Actual gums content (washed with solvents)	mg/100 ml	-	5	SR EN ISO 6246:00 ² / EN ISO 6246:97 ² / ISO 6246:95 ² ASTM D 381-09 ²
Volatility Index, VLI				Calculated
- Summer ¹		-	-	
- Winter ¹		-	-	
- transition ¹		-	1150	
Aspect		clear and transparent		Visual inspection
Oxygen content	% (m/m)	-	2.7	SR EN 1601:00 ² / EN 1601:97 ² / SR EN 22854:09 ² SR EN 13132:01 ² / EN 13132:00 ² / DIN EN 13132:02 ²
Oxygenate compounds content	% (v/v)			
Methanol		-	3.0	
Ethanol ⁵		-	5.0	SR EN 1601:00 ² / EN 1601:97 ² / SR EN 22854:09 ²
Iso propil alcohol		-	10.0	SR EN 13132:01 ² / EN 13132:00 ² / DIN EN 13132:02 ²
Iso butyl alcohol		-	10.0	
Tert butyl alcohol		-	7.0	ASTM D 6839-02(07)
Ethers (5 or more C atoms)		-	15.0	
Other oxygenates		-	10.0	
Bio-component				to be reported

NOTES: **1)** Summer - from May, 1 to September, 30; Transition: March 16 to April 30, October 1 to November 15; Winter - from November, 16 to March, 15 **2)** Accredited test by RENAR **3)** 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 **4)** Certified product by RAR **5)** According to SR EN 15376:2010 **6)** The product is in accordance to GO 935/2011 **7)** Name at the distribution pump: **Efix**, SR EN 228.

Quality control: control is done on lot.

Each batch will have max. 2,000 tones for delivery in tank wagons or autotrucks or tank capacity for piping delivery. 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-2.1 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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