

Ministry of Agrarian Policy and Food

Concern "Ukrspirt"

State enterprise "Gaisin Ethanol Plant"

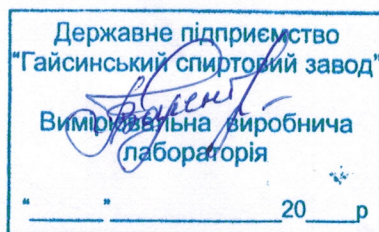
Attestation Certificate ПУ-0084/15, actual to 04.08.2018

FUEL ETHANOL SPECIFICATION

Property	Units	Norms		In fact
		Grade A	Grade B	
1. Appearance and color		Clear, colorless or light yellow		conform
2. Density at (20±1)°C	kg/m ³	787 - 792		789
3. Involatile material content, max	mg/dm ³	100		29,0
4. Water content	% v/v		0,2	0,058
5. Ethanol content + organic oxygen-containing compounds, min	% v/v	97,8	98,3	98,639
6. Methanol, max	% v/v	1		0,114
7. Cyclohexane, max	% v/v	0,5	--	-
8. Total acidity (expressed as acetic acid), max	% m/m	0,007		0,002
9. Higher (C3-C5) alcohols content, max	g/l	12		0,041
10. Automotive petrol	% v/v	1,0 – 1,5		1,303
11. Sulfur content, max	mg/kg	10		
12. Phosphorus content, max	mg/l	0,5		
13. Copper content, max	mg/kg	0,1		
14. Inorganic chloride content, max	mg/l	20,0		

Note 1. If product should be exported, item 10 is determined in Sale and Purchase Agreement.

Head of Laboratory



V. M. Frankevich