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ISO 9001:2015 Quality Management System Certificate No. 31100440 QM15
Certificate validity period: through 29.06.2024

QUALITY CERTIFICATE NO. 29865
Liquefied fuel hydrocarbon gases
of technical propane-butane (PBT) grade
according to GOST R 52087-2018

EAEU Declaration of Conformance No. RU D-RU.AB 04.B.00754/19
Valid through 19.06.2022

Document establishing product specifications:
Technical Regulations of the Eurasian Economic Union TR EAEU 036/2016
Technical Specifications for liquefied hydrocarbon gases to be used as fuel (Resolution of the Eurasian Economic Union Commission dated 09.08.2016 No. 68) (Appendix).
GOST R 52087-2018 "Liquefied hydrocarbon fuel gases. Technical specifications."
OKPD 2 Code 19.20.31
Batch number: 29865
Date of manufacture: 30.12.2021
Batch size: 81 m³
Sampling location (according to GOST 14921-2018): tank No. E-688
Date of sampling: 30.12.2021
Testing date: 30.12.2021
The tests were performed: Shop No. 10 Testing Laboratory -
Central Factory Laboratory
The certificate was issued based on the quality analysis dd 30.12.2021 No. 11838



Item No.	Indicator	Testing method	EAEU TR 036/2016 standard	GOST 52087-2018 standard	Actual value
1	Mass fraction of components, %: - total amount of methane, ethane and ethylene	GOST-10679-2019	-	Not standardized Definition required	2.669
	- total amount of propane and propylene		-	Not standardized Definition required	50.980
	*including: - propane		-	-	50.735
	- propylene		-	-	0.245
	- total amount of butanes and butylenes		-	no more than 60	46.351
	*including: - total amount of butanes		-	-	46.323
- total amount of butylenes	-	-	0.028		
2	Volume fraction of liquid residue at 20 °C, %	GOST R 52087-2018, p. 8.2	no more than 1,8	no more than 1.6	absent
3	Excess pressure of saturated vapors, MPa, at: plus 45 °C	GOST-28656-2019	no more than 1,6	no more than 1.6	1.17
4	Mass fraction of hydrogen sulfide and mercaptan sulfur, % including hydrogen sulfide, %	GOST 22985-2017	no more than 0.013 no more than 0.003	no more than 0.013 no more than 0.003	0.0074 less than 0.0002
5	Availability of free water and alkali	GOST R 52087-2018, p. 8.2	absent	absent	absent
6	Odor intensity, scores	GOST-22387 5-2014	no less than 3	no less than 3	3

* determining indicators in order to identify and classify liquefied hydrocarbon gases in accordance with the Customs Union Commodity Classification for Foreign Economic Activity (letter No. C3-73-80672 dd 14.08.2014).

Note: Indicator 3 "Pressure of saturated lars is excessive at minus 20 °C. MPa" should only be determined in winter period (from October 1 through April 1) according to p. 1 of the Appendix EAEU TR 036/2016 , and p. 3 of the note to Table 2 GOST P 52087-2018.

Conclusion: Hydrocarbon liquefied fuel gases of propane-butane technical (PBT) grade according to GOST P 52087-2018, **meet the technical specifications of:**

- The Technical Regulations of the Eurasian Economic Union, EAEU TR 036/2016, "Technical specifications for liquefied hydrocarbon gases to be used as fuel" (Resolution of the Council of the Eurasian Economic Commission No. 68 dd 09.08.2016) (Appendix).

- GOST R 52087-2018, Liquefied hydrocarbon fuel gases. Technical specifications.

Information on the availability of an odorant in the fuel:

No industrial odorant is added to fuel.

Additional Information:

- marking, transportation and storage - according to GOST R 52087-2018, section 9;

- warranty period of storage is 6 months from the date of manufacture

L.S.

Shift process engineer, shop No. 11
(Power of attorney No. 381 dated 18.12.2020)
Quality certificate issue date 30.12.2021 22:36

D.A. Glebov

signature