



JSC Ryazan Refining Company
Legal address and production site address:
Russian Federation, Ryazan city
390011, Ryazan, Southern Promuzel District, 8
e-mail: RNPk@rnpk.rosneft.ru, tel.: +7 (4912) 93-32-40, fax: +7 (4912) 93-30-84

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

QUALITY CERTIFICATE NO. 24779

Liquefied fuel hydrocarbon gases of propane-butane automobile (PBA) type according to GOST 52087-2018

EAEU Declaration of Conformance No. RU D-RU.AB 04.B.00754/19
Valid through July 19, 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: 24779
Date of manufacture: 26.07.2021
Batch size: 81 m³
Sampling location (according to GOST 14921-2018): tank No. E-687
Date of sampling: 26.07.2021
Test date: 26.07.2021
The tests were performed: Shop № 10 Testing Laboratory - Central Factory Laboratory
The certificate was issued based on the quality analysis dd 26.07.2021 № 6469



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 - propane - total amount of butanes and butylenes - total amount of unsaturated hydrocarbons - propylene - *total of butanes - *total amount of butylenes	GOST-10679-2019	- - - no more than 6.0 - - -	not standardized Definition required 50 ±10 not standardized Definition required no more than 6.0 - - -	2.48 47.29 50.05 0.20 0.18 50.03 0.02
2	Volume fraction of liquid residue at 20 °C, %	GOST R 52087-2018, p. 8.2	no more than 1,6	no more than 1.6	absent
3	Excess pressure of saturated vapors, MPa, at: plus 45 °C minus 20 °C	GOST-28656-2019	no more than 1,6 no less than 0,07	no more than 1.6 no less than 0.07	1.12 -
4	Mass fraction of hydrogen sulfide and mercaptan sulfur, % including hydrogen sulfide, %	GOST-22985-2017	no more than 0,01 no more than 0,003	no more than 0.01 no more than 0.003	0.0072 less than 0.0002
5	Availability of free water and alkali	GOST R 52087-2018, p. 8.2	absent	absent	absent
6	Odor	GOST EN 589 2014 (appendix A)	Unpleasant distinct smell at airborne concentration making 20 % of the lower flammable limit	Unpleasant distinct smell at airborne concentration making 20% of the lower flammable limit	Unpleasant distinct smell at airborne concentration making 20 % of the lower flammable limit
7	Octane number	GOST EN 589-2014 (Appendix B)	no less than 89,0	no less than 89	94.2

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

Note: Indicator 3 "Excessive pressure of saturated vapors 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 automobile (PBA) grade according to GOST P 52087-201, 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. 58 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)
Certificate issue date 26.07.2021 12:45

signature

D.A. Glebov