

Testing Laboratory "QuantTest"
 Certificate ROSS RU.31578.04OJH0.IJI32
 Validity period from 25.08.2023 to 24.08.2026
 Address: 142600, Moscow region, city of Orekhovo-Zuevo, Likinskoe Highway, 2v

Approved by:
 Head of Laboratory
 /signed/ Antonov N.P.
 dd. 13.02.2024

Round seal: Testing Laboratory "QuantTest" ROSS RU.31578.04OJH0.IJI32
 Moscow region, city of Orekhovo-Zuevo

TEST REPORT
No. 001/Y-13/02/24 dated 13.02.2024

Customer of the test, address of the customer ¹	LOZA, LLC. Address: 454031, Russia, Chelyabinsk region, city of Chelyabinsk, 50-letiya VLKSM Street, bldg. 18B, office 32
Name of test object ¹	Blocks from stromatolite limestone of the Annovskoye deposit for the production of facing, architectural, memorial and other products of the Riphean Story trademark
Manufacturer ¹	LOZA, LLC. Address: 454031, Russia, Chelyabinsk region, city of Chelyabinsk, 50-letiya VLKSM Street, bldg. 18B, office 32
Sampling plan (method) ¹	Sampling was performed in accordance with GOST R 58972-2020, sampling act No. 003/J-15/02/24
Sample identification number	No. 001/Y-13/02/24
Tests have been carried out for conformity with the requirements	Technical Conditions TU 5714-002-78821620-2013

TEST RESULTS

Test Engineer: Popov P.S.

Table 1

Indicator (characteristic)	Methods of testing	Standardized value	Test result
1	2	3	4
Blocks by type of face surface	Technical Conditions TU 5714-002-78821620-2013	are sawn. At least four faces of the block are formed by sawing.	Conforms to the requirement
Color of blocks	Technical Conditions TU 5714-002-78821620-2013	dark brown, dark cherry brown, light gray, bluish gray, greenish gray.	Conforms to the requirement
Blocks	Technical Conditions TU 5714-002-78821620-2013	shall have the shape of a rectangular parallelepiped or close to it with dimensions: length more than 0.4 m; width and height more than 0.2 m. The volume of blocks should be within the range from 0.1 m ³	Conforms to the requirement

Table 2

Indicators of physical and mechanical properties of rocks of the payload strata	Unit of measurement	Variation of values		Average for the deposit	Requirements of GOST 9479-2011 Technical Conditions TU 5714-002-78821620-13
		from	to		
1	2	3	4	5	6
Average density	g/cm ³	2,67	2,71	2,69	Not less than 2,60
Water absorption	%	0,14	0,35	0,23	Not more than 0,75
True density	g/cm ³	2,70	2,75	2,72	No
Porosity	%	1,09	1,84	1,25	No
Compressive strength in dry condition	MPa	83,06	119,2	105,34	Not less than 50,0

¹ Information provided by the customer

Test Protocol No. 001/Y-13/02/24 dated 13.02.2024
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Testing Laboratory "QuantTest"
Certificate ROSS RU.31578.04OJH0.IJ132
Validity period from 25.08.2023 to 24.08.2026
Address: 142600, Moscow region, city of Orekhovo-Zuevo, Likinskoe Highway, 2v

Indicators of physical and mechanical properties of rocks of the payload strata	Unit of measurement	Variation of values		Average for the deposit	Requirements of GOST 9479-2011 Technical Conditions TU 5714-002-78821620-13
		from	to		
1	2	3	4	5	6
Compressive strength in water-saturated condition	MPa	66,70	100,8	86,83	No
Compressive strength after frost resistance test	MPa	60,86	93,78	80,20	No
Decrease in compressive strength of rock during water saturation	%	16,03	20,49	17,76	Not more than 30
Decrease in strength after frost resistance tests	%	6,96	8,76	7,75	Not more than 20
Abrasion resistance on the LKI-3 wheel	g/cm ²	0,71	0,92	0,79	Not more than 2,0
Impact resistance on the KI pile driver	cm	30	30	30	Not less than 20
Acid resistance	%	0,70	0,90	0,79	Not more than 1
Frost resistance	Grade	F-200	F-200	F-200	Not less than F-15

Table 3

No.	Sample No.	Name of sample type	Specific activity, Bq/kg			Effective specific activity, Bq/kg
			40k	226Ra	232Th	
1	RAD-1	Limestone	90 ± 40	<10	<10	<48
2	RAD-2	Limestone	90 ± 40	<10	<10	<48
3	RAD-3	Limestone	150 ± 44	<10	17±5	46 ± 12
4	RAD-4	Limestone	100 ± 42	<10	<10	<49
5	RAD-5	Limestone	100 ± 35	<10	<10	<49
6	RAD-6	Limestone	100 ± 44	<10	<10	<49
7	RAD-7	Limestone	100 ± 36	<10	<10	<48
8	RAD-8	Limestone	180 ± 40	<10	<10	39 ± 17
9	RAD-9	Limestone	100 ± 33	<10	<10	<49
10	RAD-10	Limestone	150 ± 40	<10	<10	37 ± 17
Normative length of construction materials of class I						<370

Observations:

1. The Test Report applies only to the samples that have been tested. The test results refer to the samples provided by the Customer.
2. The Test Protocol may not be partially reproduced without written authorization of the testing laboratory.
3. The Methods of testing are included in the List of standards containing the rules and methods of research (tests) and measurements, including the rules of sampling, necessary for the application and fulfillment of the requirements of technical regulations.

END OF TEST REPORT

Test Protocol No. 001/Y-13/02/24 dated 13.02.2024

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Translation from Russian into English is performed by the certified translator Antipyeva Veronika Yuryevna.

Перевод с русского языка на английский язык выполнил дипломированный переводчик Антипьева Вероника Юрьевна.

Антипьева Вероника Юрьевна

Российская Федерация
Город Челябинск Челябинской области
Девятого августа две тысячи двадцать четвёртого года

Я, Третьяков Сергей Викторович, нотариус нотариального округа Челябинского городского округа Челябинской области, свидетельствую подлинность подписи переводчика Антипьевой Вероники Юрьевны.

Подпись сделана в моем присутствии.

Личность подписавшего документ установлена.

Зарегистрировано в реестре: № 74/69-н/74-2024-10-140.

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С.В.Третьяков

