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中国认可国际
互认检测
TESTING
CNAS L4679

Inspection And Detection Report

Report number:OLT26KD76392

Employing organization: Russian Practical Mineral Development Company

Sample name: Natural river sand

Testing category: Commissioned testing

Eurolab Testing Technology Services (Shanghai) Co., Ltd.

Report number: OLT26KD76392

Sample name	Natural river sand	Trademark	/
Sample submission method	send sample	Specifications and models	medium-coarse sand
Client	Russian Practical Mineral Development Company		
Employer address	Apt 208, 59 Shelest Street, Khabarovsk, Russia		
Production unit	/		
Production unit address	/		
Sample status	intact	lot identification mark	/
Sample size	50kg	Sample collection date	08 March 2026
Date of manufacture	/	Detection cycle	March 8, 2026 – March 15,2026
Detection basis	JIS A 5308 "Ready-mixed Concrete" GB/T 14684-2022 "Sand for Construction" GB 6566-2010 "Limits of Radionuclides in Building Materials"		
Test conclusion	Upon inspection, the tested items of the sample comply with standard requirements and are deemed qualified. (Special Seal for Inspection and Testing) Issued on: March 15,2026		
Remarks	Information related to the samples is either explicitly labeled on the samples or provided by the entrusting institution.		

Prepared by: Reviewed by: Approved by:

Detection result ；

Routine program testing

order number	surveillance project	experimental method	Standard Requirements	detection result	judge
1	oven-dry density	JIS A 1109	≥2.55g/cm³	2.58g/cm³	Qualified
2	water absorption	JIS A 1109	≤2.0%	1.7%	Qualified
3	moisture content	JIS A 1111	Small and stable fluctuations	2. 78	Qualified
4	surface water content	JIS A 1112	——	1.30%	Qualified
5	particle size distribution	JIS A 1102	Center and smooth curve	Center and smooth curve	Qualified
6	Fineness Modulus (F.M.)	JIS A 1102 Calculation	2.5 to 3.0 (range ±0.15)	2. 91	Qualified
7	fine particle content	JIS A 1103	≤3.0%	1.68%	Qualified
8	clay lump content	JIS A 1137	≤0.5%	0.06%	Qualified
9	organic impurities	JIS A 1105	Significantly lighter than the standard color	meet the requirement	Qualified
10	Weak lithoclasts	——	≤0.25%	0.2%	Qualified
11	Shell content	——	Does not include	0	Qualified
12	chloride content	JIS A 5308 Appendix C	≤0.02%	0.007%	Qualified
13	alkali-silica reactivity (ASR)	JIS A 1145/A 1146	Should meet non-hazardous standards	A	Qualified
14	soundness	JIS A 1122	≤5%	3.8%	Qualified
15	Methylene blue value (MB)	GB/T 14684-2022	≤1.0	0.68	Qualified
16	mass per unit volume	JIS A 1104	High and stable	1. 472	Qualified

Sieve Analysis Results

Sieve size (mm)	Individual retained (%)	Cumulative retained (%)
5.0	3.68	3.68
2.5	11.22	14.9
1.25	13.0	27.9
0.63	27.2	55.1
0.315	38.0	93.1
0.16	5.8	98.9
<0.16	1.1	100

Detection of Radioactive Nuclides in Building Materials

detection device

device name	model	number	Calibration validity period
Low-background multi-channel gamma spectrometer	BH1224	JC-GP-001	2026.12.31
electronic balance	FA2004	JC-TB-015	2026.09.30

sample preparation

According to Article 4.2 of GB 6566-2010: Randomly select samples weighing no less than 1 kg, crush and grind the samples to a particle size less than 0.16 mm, place them into sample boxes with geometric morphology identical to the standard samples, weigh (accurate to 1 g), seal the samples, and allow them to stand for testing.

Detect environmental conditions

ambient temperature	relative humidity	Testing site
(22 ± 3) ℃	(55 ± 10) %RH	Radioactivity Detection Room

detection result

1 Results of radionuclide specific activity measurement

surveillance project	Radium-226 (Ra-226)	Thorium-232 (Th-232)	Potassium-40 (K-40)
Radioactive specific activity (Bq/kg)	28.5	19.2	485.6
Measurement uncertainty (K=1)	± 3.2 Bq/kg	± 2.8 Bq/kg	± 18.5 Bq/kg

2 Calculation of Internal Radiation Index and External Radiation Index

Internal radiation index: IRa = CRa/200 = 28.5/200 = 0.14

External radiation index: Ir = (CRa/370 + CTh/260 + CK/4200) = (28.5/370 + 19.2/260 + 485.6/4200) = 0.27

3 Summary of Detection Results

Evaluation Items	detection result	Standard Limit Value	Single-item assessment	remarks
Internal radiation index IRa	0.14	≤ 1.0	Qualified	---
External irradiation index Ir	0.27	≤ 1.0	Qualified	---

Test conclusion

Testing results showed that the river sand sample had an internal radiation index (IRa) of 0.14 and an external radiation index (Ir) of 0.27, both meeting the requirements for building main materials specified in GB 6566-2010 "Limitation of Radioactive Nuclides in Building Materials" (IRa ≤ 1.0 and Ir ≤ 1.0).

Conclusion: The radionuclide detection results of this sample are qualified and can be used for the main structure and decoration of various construction projects (Category A).

Sample image

Report End

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