

TESTING CENTRE

UralstroiTest

Accreditation Certificate No. POCC RU 0001.21CA04

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APPROVED

Head of UralstroiTest Testing Centre

 A.I. Shestakov

November 18, 2013

Stamp here

Stamp: Limited Liability Company "UralstroiTest", Russian Federation, Yekaterinburg city, Primary State Registration Number (OGRN) 1056602745506.



Specimen products proof test report No. 1949

of December 18, 2013

Basis for carrying out of testing / Agreement No. 1477 of 28.10.2013

Product description: Radiation-exposed concrete test cubes with a dimension of 100 x 100 x 100 mm (supplied by the customer); radiation-exposed concrete test cubes with a dimension of 100 x 100 x 100 mm with Penetron Admix sealant (test cubes were exposed to gamma-radiation (^{60}Co radionuclide) under standard conditions within the period from 12.04.2013 to 07.10.2013 at the branch of the Federal State-owned Unitary Enterprise "Karpov Institute of Physical Chemistry" with the use of KCB-500 radiation plant. The absorbed dose is $1000 \pm 10\%$ mrad).

Test cubes are produced from class B22.5 concrete.

Actual materials consumption per 1m^3 of concrete: PTs-500D0 (ПЦ-500Д0) portland cement (manufactured by ZAO Neviyansk cement plant) – 462,5 kg, sand after crushed stone screening (Monetary Shchebenochny zavod) – 525 kg, crushed stone with a fraction size of 5 – 20 mm (Monetary Shchebenochny zavod) – 1275 kg, water – 237,5 kg (as per customer's information).

Test cubes with the sealant are made of B22.5 concrete with the same composition plus Penetron Admix sealant amounting to 4,6 kg (as per customer's information).

Customer: ZAO "Group of companies "Penetron-Russia", 1, Zhukovsky Square, Yekaterinburg, 620076, Russia.

Date of specimen acquisition: October 28, 2013. Date of Sampling report – October 21, 2013. Laboratory No. K-229/13.

Testing procedure: GOST 10180-2012.

Date of specimen testing: November 18, 2013.

Test conditions: Tests were performed under standard climatic conditions – at an air temperature of 20 ± 5 °C and a relative humidity not less than 55%.

Tests were performed with the use of hydraulic press PGM-1000MG4 (ПГМ-1000МГ4) No. 231. Range of measurement – 100 t.

Accuracy of measurements does not exceed $\pm 1\%$.

Testing results: Results of testing are given on page 1. Total number of pages is 1.

Radiation-exposed concrete test cubes crushing strength, MPa	Radiation-exposed test cubes with Penetron Admix sealant crushing strength, MPa
37,82; 36,51	38,50; 42,15
Average value – 37,17	Average value – 40,33

Note: Testing results refer to tested specimens only. Full or partial reproduction of the report requires the permission of UralstroiTest Testing Centre head.

Specialist responsible for testing: 

E.N. Vlasova