

Municipal Unitary Enterprise MUP "KAZMETROSTROJ"
CENTRAL PRODUCTION-AND-BUILDING TEST LABORATORY

Attestation certificate No. 107-08
Valid till 10.10.2011r.

THE REPORT
on testing concrete cylinder samples for water resistance

The customer: limited liability company OOO "PENETRON - Kazan".

The name of the products (structures) made from the concrete from which the samples have been taken: stone concrete, cement=270 kg/m³ of the grade ПЦ500-Д0-Н, without additives.

The class (the grade) of the concrete with respect to compressive strength is B15. $R_{actual76days}=221 \text{ kg/cm}^2$.

Project grade of the concrete with respect to water resistance is W2.

The date of reception of the samples for the test is 30.09.08.

Laboratory number 5 (the log No. 25).

The date of the beginning of the test: 15.12.2008.

The method of determination of water resistance — by "wet" spot.

GOST 12730.5-84.

The results of testing the samples

Test date	Age of the sample (days)	No. of the sample	Test results						
			P=0,2 MPa	P=0,4 MPa	P=0,6 MPa	P=0,8 MPa	P=1,0 MPa	P=1,2 MPa	P=1,4 MPa
9.12-14.12.08	76	1	There is water at the edges	Water has seeped	Have not been tested				
		2	No water spots	No water spots					
		5	There is water at the edges	Water has seeped					
		4	No water spots	Water has seeped					
		5	No water spots	Water has seeped					
		6	No water spots	No water spots					

Conclusion: Complies with the grade W2; at water pressure 0,2 MPa — 4 of 6 samples was dry; at water pressure 0,4 MPa — water has seeped through 4 samples.

Note: The tests were carried out at six-slot installation (h and d of sample cylinders = 150mm). Water pressure was controlled by means of two manometers МТП-100 (verification mark — the 3rd quarter of 2008).

The head of the laboratory

Uspenskaja L.L.

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on testing concrete cylinder samples for water resistance

The customer: limited liability company OOO "PENETRON - Kazan".

The name of the products (structures) made from the concrete from which the samples have been taken: stone concrete, cement=270kg/m³ of the grade ПЦ500-Д0-Н, Penetron-Admix – 1 %.

The class (the grade) of the concrete with respect to compressive strength is B15. $R_{actual65days}=290 \text{ kg/cm}^2$.

Project grade of the concrete with respect to water resistance is as tested.

The date of reception of the samples for the test is 4.10.08.

Laboratory number 4 (the log No. 25).

The date of the beginning of the test: 9.12.2008.

The method of determination of water resistance — by "wet" spot.

GOST 12730.5-84.

The results of testing the samples

Test date	Age of the sample (days)	No. of sample	Results of tests						
			P=0,2 MPa	P=0,4 MPa	P=0,6 MPa	P=0,8 MPa	P=1,0 MPa	P=1.2 MPa	P-1.4 MPa
9.12-14.12.08	65	1	No water spots	No water spots	No water spots	No water spots	No water spots	No water spots	Have not been tested
		2	No water spots	No water spots	No water spots	No water spots	No water spots	There is water at the edges	
		3	No water spots	No water spots	No water spots	No water spots	No water spots	No water spots	
		4	No water spots	No water spots	No water spots	No water spots	No water spots	No water spots	
		5	No water spots	No water spots	No water spots	No water spots	No water spots	Water has seeped	
		6	No water spots	No water spots	No water spots	No water spots	No water spots	No water spots	

Conclusion: Complies with the grade not lower than W12; the sample No.5 has water seepage over all the height of the sample; in the other samples, the water has seeped into the concrete for 5 – 10 cm.

Note: The tests were carried out at six-slot installation (h and d of samples cylinders = 150mm). Water pressure was controlled by means of two manometers МТП-100 (verification mark — the 3rd quarter of 2008).

The head of the laboratory

Uspenskaja L.L.