

Department of Civil Engineering and Architecture RESEARCH AND TESTING LABORATORY OF BUILDING MATERIALS Accredited by the Estonian Accreditation Centre reg nr L004

Customer:

AS Uninaks

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Experimental Report N° 812A/25

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Assignment: Testing of dry mix

Product designation: Dry mix **UNINAKS Jootebetoon NAKS JC70, 08.03.25 liin 06** Forwarded to the laboratory by costumer on 20.05.2025, 50 kg.

Test method: EN 12390-3 and EN 13057*).

Fresh concrete was prepared on 01.07.2025 in accordance with manufacturer's instructions using the water / product ratio 0.18 specified by manufacturer.

For determination compressive strength the test specimens with dimensions 100x100x100 mm were prepared. Curing regime of test specimens: 24 h in the mould and 27 days under water (20±2) °C. The results are given in Table 1.

Capillary absorption was determined following the requirements of EN 13057. Resistance to capillary absorption was measured on the trowelled upper face of 100 mm diameter cylindrical specimens of mortar, with a thickness of 20 mm. Curing regime of test specimens: 24 h in the mould and 27 days under water (21 ± 2) °C. The specimens were dried to constant mass at a temperature (40 ± 2) °C for seven days and conditioned in a standard laboratory climate of (21 ± 2) °C and (60 ± 10) % RH. Specimens were weighed and placed in the shallow tray with their test face down and immersed in water to a depth of (2 ± 1) mm. The specimens were weighed after 12 min, 30 min, 1 h, 2 h, 4 h and 24 h immersion. The results are given in Table 2 and Figure 1.

Test results:

Table 1: 28 days compressive strength of dry mix concrete marked as "UNINAKS Jootebetoon NAKS JC70, 08.03.25 liin 06" according to EVS-EN 12390-3

Designation		Testing date	Dimensions, mm			A, cm ²	Mass, kg	Density, kg/m ³	F, kN	Compressive strength, N/mm ²	
		date	a	b	h	CIII	Kg	Kg/III	KIV	üksik	keskm
NAKS	1	29.07.25	100.0	98.0	100.0	98.0	2.144	2190	700	71.4	71.4
JC70	2		100.0	98.0	99.5	98.0	2.152	2210	701	71.5	
3370	3		100.0	98.0	99.5	98.0	2.160	2210	699	71.3	

^{*} This test method does not belong to the accreditation scope of laboratory.

Table 2: The sorption coefficient of concrete marked as "UNINAKS Jootebetoon NAKS JC70, 08.03.25 liin 06" in accordance with EN 13057.

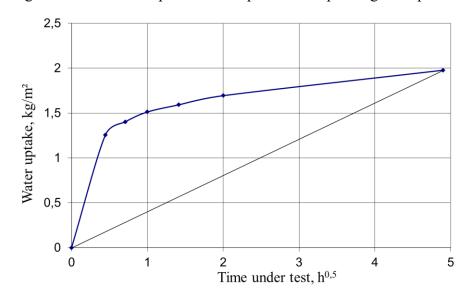
Testing time: 07.08.25-08.08.25

Nr.	Dimen	Dimensions		Mass / sorptsion coefficient after immersion								
	Ø, mm	h, mm	A, cm ²		0 min	12 min	30 min	1 h	2 h	4 h	24 h	
1	106.5	24.0	89.0	g	408.03	418.95	420.19	421.10	422.02	422.99	425.57	
1				kg/(m ² ·h ^{0.5})		2.74	1.93	1.47	1.11	0.84	0.40	
2	106.5	26.8	89.0	g	469.55	481.25	482.88	484.11	484.64	485.58	487.96	
				kg/(m ² ·h ^{0.5})		2.94	2.12	1.64	1.20	0.90	0.42	
3	106.5	25.8	8 89.0	g	463.24	474.20	475.20	476.00	476.68	477.50	480.11	
				kg/(m ² ·h ^{0.5})		2.75	1.90	1.43	1.07	0.80	0.39	

The mean value of sorptsion coefficient $S = 0.4 \text{ kg/(m}^2 \cdot h^{0.5})$

Mean waterfront after 2 hours was 13 mm.

Figure 1 Water uptake of test specimens depending on exposure time EN 13057.



The test results are valid to the described test sample only.

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