



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Testing Institute for Construction Prague

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Central laboratory – Testing department Prague

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TEST REPORT

issued by Testing Laboratory

No. 010-042221

**on test of: shear strength (bond strength to the substrate),
flexural tensile strength,
surface water absorption of unprotected sides of boards**

Ordering Party: Peshelan plaster plant, Llc
Address: Arzamas district, Nizhny Novgorod region, Peshelan, 607264 Russia
Company ID: 5202002458
Manufacturer: Peshelan plaster plant, Llc
Address: Arzamas district, Nizhny Novgorod region, Peshelan, 607264 Russia
Test sample: gypsum fibre boards GWFB-Peshelan standard and moistureproof, thickness 10 mm
Order No.: Z010190001
Number of pages of the test report incl. title page: 4 Pages of annexes: 0

Prepared by:

Jiří Novák

test technician - specialist

Approved by:

Ing. Radka Sedmidubská

head of the Testing Department

Print No.: 1

Number of prints: 3



04.02.2020, Prague

Declaration: 1) The test results in this Report relate only to the tested article and they do not substitute any other documents.
2) The Test Report must be copied as a whole only otherwise a written consent of the testing laboratory is needed.

1. Sample data

Evidence Number: Gypsum fibre boards GWFB-Peshelan, thickness 10 mm
VZ010190486-A (standard)
VZ010190486-B (moistureproof)

Order/contract: Z010190001

Date of sample delivery: 20.11.2019

Sampling place: Warehouse of the manufacturer

Sampling method: Not stated

Method of the sample preparation: Supplied slabs were cut by mechanical tools to prescribed dimensions.

Data on sampling conditions, plan and procedure of sampling and name of the person who performed sampling are stated in the Sampling Minutes that are stored in the Testing Department.

Test results apply to the samples as received.

2. Test methods

ČSN EN 15283-2+A1:2010 Gypsum boards with fibrous reinforcement – Definitions, requirements and test methods – Part 2: Gypsum fibre board

Additions, deviations or exclusions from the standard procedure or use of non-standardized methods: were not applied.

3. Test results

The tests were performed on: 06.01.2020 - 29.01.2020

Place of testing: Central laboratory – Testing department Prague

The tests were performed by: Jiří Novák

Data on the person who performed the test, test conditions and equipment used are listed in the test minutes. Apparatuses and measuring instruments used for testing have been verified pursuant to the valid plan of the Testing Department Prague.

Laboratory environment: (23±2) °C, relative humidity (50±5) %.

3.1. Determination of shear strength (bond strength to the substrate) according to ČSN EN 15283-2+A1:2010, CI.5.12

Table No. 1: Shear strength test (VZ010190486-A - gypsum fibre boards GWFB-Peshelan standard, thickness 10 mm) – test results

Sample	1	2	3	4	5	6
Thickness of the board No. 1 [mm]	10,1	10,1	10,2	10,0	10,1	10,2
Thickness of the board No. 2 [mm]	10,2	10,1	10,2	10,1	10,0	10,2
Failure load [N]	1025	1003	1077	1141	1021	1306
Shear strength [N]						1096



Table No. 2: Shear strength test (VZ010190486-B - gypsum fibre boards GWFB-Peshelan moistureproof, thickness 10 mm) – test results

Sample	1	2	3	4	5	6
Thickness of the board No. 1 [mm]	10,2	10,1	10,0	10,0	10,1	10,2
Thickness of the board No. 2 [mm]	10,1	10,0	10,0	10,1	10,0	10,0
Failure load [N]	1702	1542	1802	1422	1145	1145
Shear strength [N]						1460

3.2. Determination of flexural tensile strength (flexural strength) according to ČSN EN 15283-2+A1: 2010, Cl. 5.6

Table No. 3: Flexural tensile strength (VZ010190486-A - gypsum fibre boards GWFB-Peshelan standard, thickness 10 mm), longitudinal direction (L), deposition face down – test results

Board identification	Board No. 1		Board No. 2		Board No. 3	
Sample	1/1	2/1	1/2	2/2	1/3	2/3
Fracture load F_{max} [N]	567,6	570,2	509,3	543,3	527,2	560,6
Flexural tensile strength F_m [N]	9,6	10,0	8,8	9,4	9,0	9,8

Table No. 4: Flexural tensile strength (VZ010190486-A - gypsum fibre boards GWFB-Peshelan standard, thickness 10 mm), transverse direction (T), deposition face up – test results

Board identification	Board No. 1		Board No. 2		Board No. 3	
Sample	1/1	2/1	1/2	2/2	1/3	2/3
Fracture load F_{max} [N]	487,5	435,9	428,2	430,3	451,2	460,2
Flexural tensile strength F_m [N]	8,4	7,7	7,4	7,6	8,1	7,9

Flexural tensile strength F_m [N] mean value = 8,6 N/mm².

Table No. 5: Flexural tensile strength (VZ010190486-B - gypsum fibre boards GWFB-Peshelan moistureproof, thickness 10 mm), longitudinal direction (L), deposition face down – test results

Board identification	Board No. 1		Board No. 2		Board No. 3	
Sample	1/1	2/1	1/2	2/2	1/3	2/3
Fracture load F_{max} [N]	601,1	723,5	665,8	744,9	642,2	532,1
Flexural tensile strength F_m [N]	10,2	12,4	11,4	12,2	10,9	9,3

Table No. 6: Flexural tensile strength (VZ010190486-B - gypsum fibre boards GWFB-Peshelan moistureproof, thickness 10 mm), transverse direction (T), deposition face up – test results

Board identification	Board No. 1		Board No. 2		Board No. 3	
Sample	1/1	2/1	1/2	2/2	1/3	2/3
Fracture load F_{max} [N]	639,6	665,4	561	532,8	598,3	588,4
Flexural tensile strength F_m [N]	11,0	10,8	9,7	9,4	10,3	10,0

Flexural tensile strength F_m [N] mean value = 10,7 N/mm².



3.3. Determination of surface water absorption of unprotected sides of boards according to ČSN EN 15283-2+A1: 2010, Cl. 5.8

Table No. 7: Surface water absorption (VZ010190486-A - gypsum fibre boards GWFB-Peshelan standard, thickness 10 mm), the test was performed on the unprotected side of the boards – test results

Board identification	Board No. 1	Board No. 2	Board No. 3
Sample	1	2	3
Face side			
Surface water absorption [g/m²]	1702	1435	1279
Surface water absorption [g/m²] mean value			1472
Reverse side			
Surface water absorption [g/m²]	3056	3615	3176
Surface water absorption [g/m²] mean value			3282

Table No. 8: Surface water absorption (VZ010190486-B - gypsum fibre boards GWFB-Peshelan moistureproof, thickness 10 mm), the test was performed on the unprotected side of the boards – test results

Board identification	Board No. 1	Board No. 2	Board No. 3
Sample	1	2	3
Face side			
Surface water absorption [g/m²]	184	165	166
Surface water absorption [g/m²] mean value			171,66
Reverse side			
Surface water absorption [g/m²]	373	340	493
Surface water absorption [g/m²] mean value			402

END OF THE TEST REPORT

