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

issued by Testing Laboratory

No. 010-040186

on calculation of thermal resistance

Ordering Party: POWERCELL-ISOLATION
Address: Z.I UTIQUE, 5060 BIZERTE, Tunisian Republic

Test sample: **In-situ formed loose fill cellulose insulation product POWERBLOW**

Order No.: Z010150193

Number of pages of the test report incl. title page: 4 Number of Annexes: 2

Prepared by:

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specialist

Approved by:

Ing. Radka Sedmidubská
head of the testing department

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Prague, 05.09.2018

stamp of testing laboratory

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. Subject of calculation

Product:	In-situ formed loose fill cellulose insulation product POWERBLOW -density range 28 kg/m³ and 65 kg/m³ - the product can be applied by blowing or injection -standard package weight according to manufacturer´s declaration: 13.5 kg -technical specification: ETA(European Technical Assessment) No. 15/0445 of 10.02.2016 issued by TAB(Technical Approval Body – member of EOTA) – Technical and Test Institute for Construction Prague -declared class of settlement in cavities of walls and between rafters according to Annex B.2 of EN 15101-1: SCO (settlement ≤1%)
Order:	Z010150193
Information about the product:	see Test report No. 020-034375 of 06.01.2016, issued by Technical and Test Institute for Construction Prague, Central Laboratory – Testing Department České Budějovice

2. Standards and procedures

ČSN EN 12667	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance *Determination of thermal resistance*

Deviations from a standard procedure or the use of non-standardized methods: no

3. Results of the calculation

The calculation was carried out on: 30.08.2018
The calculation was performed by: Ing. Klára Bednářová

Calculation is based on the data coming from summarization overview table of the determination of thermal conductivity coefficients of 07.01.2016 (issued by Technical and Test Institute for Construction Prague, s.p., Central laboratory-Testing department České Budějovice) and declared thickness and weight of package submitted by the manufacturer.

3.1 Calculation of thermal resistance

a)Thermal conductivity coefficient $\lambda_{D(23;50)}$ = 0.0430 W/m.K
density 28-30 kg/m³

Thermal resistance [m²·K/W]	Thickness [m]	Thickness after settlement* [m]	Number of 13,5 kg bags per 100 m²
2.00	0.086	0.086	18
2.50	0.108	0.108	22
3.00	0.129	0.129	27
3.50	0.151	0.151	31
4.00	0.172	0.172	36
4.50	0.194	0.194	40
5.00	0.215	0.215	45
5.50	0.237	0.237	49
6.00	0.258	0.258	54
6.50	0.280	0.280	58
7.00	0.301	0.301	62
7.50	0.323	0.323	67
8.00	0.344	0.344	71
8.50	0.366	0.366	76
9.00	0.387	0.387	80
9.50	0.409	0.409	85
10.00	0.430	0.430	89
10.50	0.452	0.452	94
11.00	0.473	0.473	98

Note:
**declared class of settlement in cavities of walls and between rafters according to Annex B.2 of EN 15101-1: SCO*

b)Thermal conductivity coefficient $\lambda_{D(23;50)}$ = 0.0430 W/m.K
density 60-65 kg/m³

Thermal resistance [m²·K/W]	Thickness [m]	Thickness after settlement* [m]	Number of 13,5 kg bags per 100 m²
2.00	0.086	0.086	38
2.50	0.108	0.108	48
3.00	0.129	0.129	57
3.50	0.151	0.151	67
4.00	0.172	0.172	76
4.50	0.194	0.194	86
5.00	0.215	0.215	96
5.50	0.237	0.237	105
6.00	0.258	0.258	115
6.50	0.280	0.280	124
7.00	0.301	0.301	134
7.50	0.323	0.323	143
8.00	0.344	0.344	153
8.50	0.366	0.366	162
9.00	0.387	0.387	172
9.50	0.409	0.409	182
10.00	0.430	0.430	191
10.50	0.452	0.452	201
11.00	0.473	0.473	210

Note:
**declared class of settlement in cavities of walls and between rafters according to Annex B.2 of EN 15101-1: SCO*

4. Annexes

1. Test report No. 020-034375 of 06.01.2016, issued by Technical and Test Institute for Construction Prague, Central Laboratory – Testing Department České Budějovice

2. Summarization overview table of the determination of thermal conductivity coeffiecients of 07.01.2016 , issued by Technical and Test Institute for Construction Prague, s.p., Central laboratory-Testing department České Budějovice

END OF THE TEST REPORT

TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p. Centrální laboratoř ZÚS Zkušebna Praha