

Test Report

REPORT NO.:
23011



**DANISH
TECHNOLOGICAL
INSTITUTE**

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axs/cnni/hk
Order no. 180509

Assignor: Abeo A/S
Beredskabsvej 12
DK-2640 Hedehusene

Item: **Foam Concrete**
See details on page 2.

Sampling: The test material was forwarded by the client and received at the Danish Technological Institute on the dates given on page 2. Marking, information and the labelling are given by the assignor.

Method: See page 2.

Equipment 1) NBY horizontal GHP 270-T-2076, encapsulated in a thermostatic controlled box, 2) Thermometer for box temperature sensor 270-T-2092, 3) Shunt resistor ID140924, 4) Data logger ID6187, 5) Slide calliper 270-T-2052 and telescoping gauge, 6) Balance 270-T-2054 for weight of the sample, 7) Laboratory temperature 270-T-2070 and 8) Laboratory air humidity 270-T-2088.

Test result: The test results are given on page 2.

Terms: This test was conducted accredited in accordance with international requirements (ISO/IEC 17025:2017) and in accordance with the General Terms and Conditions of Danish Technological Institute. The test results solely apply to the tested item. This test report may be quoted in extract only if Danish Technological Institute has granted its written consent.

Place: 2023.02.10 Danish Technological Institute, Energy and Climate, Taastrup

Signature: Signed with digital signature

Test responsible
Alexander Souproun, Senior Consultant
Thermal Laboratory TELA

Danish Technological Institute
Energy and Climate
Gregersensvej
DK-2630 Taastrup
Denmark



Test results

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Manufacturer

Abeo A/S

Sampled by

-

Invoice to

Abeo A/S
Beredskabsvej 12
DK-2640 Hedehusene

Test sample

Material: Foam Concrete
Dimensions [mm]: 300 x 300 x 100
Client marking: Aircrete275
Id. no.: 228 Order reference: -
Receipt control no.: -

Table 1: Test samples

		1	2
Length	mm	299	299
Width	mm	295	298
Weight at arrival	kg	-	-
Weight before test	kg	1,904	1,919
Weight after test	kg	1,904	1,919
Change of mass during test	kg	0,000	0,000
Density during test	kg/m ³	215,7	213,9
Thickness during test	mm	100,1	100,7
Thickness before test	mm	100,1	100,7
Thickness after test	mm	100,1	100,7
Change of thickness	mm	0,0	0,0
Moisture during test	weight %	-	-

Test specimen: Two blocks

Conditioning

Dried before test at 110 °C.

Dates

Test sample manufactured: 2023.01.16
Sampled: -
Test sample received at DTI: 2023.02.02
Testing: 2023.02.07

Results

See table 2. Measurement uncertainty: ±2%

Table 2: Test results

Test no.		1
Mean surface temperature of specimen	Hot side °C	19,87
	Cold side °C	-0,13
Mean temperature difference	K	19,99
Mean temperature	°C	9,87
Temperature in cabinet	°C	8,90
Room temperature	°C	9,62
Mean thermal conductivity	W/(m·K)	0,0718
Heat flow q_{meas}	W/m ²	14,07
Thermal resistance R_{meas}	m ² ·K/W	1,399

q and R at 100,38 mm

Operator

AXS

Remarks

Relative moisture at departure: 16,54%.

Method

Test is carried out according to:

DS/EN 12667:2001	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.
ISO 8302:1991	Thermal insulation. Determination of steady-state thermal resistance and related properties. Guarded hot plate apparatus.