

Mfpa Leipzig GmbH

Leipzig Institute for Materials
Research and Testing

Testing, Inspection and Certification
Authority for Construction
Products and Constructions Types

Business Division I: Building Materials and Building Physics

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Testing laboratory accredited by DAkkS
GmbH according to DIN EN ISO/IEC
17025. The certificate can be seen on
www.mfpa-leipzig.de

Test Report No. PB 1.5/24-041-3

16 September 2024
No. Copy 1

Contracting body: Scan Underlay
Ursusvej 16
8464 Galten
Denmark

Task: Determination of the thermal conductivity
according to DIN EN 12667

Product: Acoustic Silence 1050 - 5

Samples delivery: 15/03/2024

Date of testing: 05/09/2024

Persons in charge: Dr.-Ing. Stephan Reichel
Stefan Laut, Head of Laboratory

This report consists of 4 pages.

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1 Task definition

MFA Leipzig GmbH was commissioned by co. Scan Underlay to test the thermal conductivity / thermal resistance of the sound insulation product "Acoustic Silence 1050 - 5" according to DIN EN 12667.

On 15 March 2024, four rolls of the material were delivered to MFA Leipzig GmbH. Further information on the material is not available.

For the test, several layers of the material were arranged on top of each other.



Fig. 1: Acoustic Silence 1050 - 5

2 Testing procedure and results

DIN EN 12667 2001-05	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; German version
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Conditioning: (23 ± 2) °C and (50 ± 5) % rel. hum. for 6 hours

Testing device: double-sided guarded hot plate apparatus according to DIN EN 12667
manufacturer: Taurus, Typ: TLP500 GX-1/-2

Dimensions: 250 mm x 250 mm x 44 mm (10 samples)

Procedure: According to DIN EN 12667, a central, plane plate unit which consists of a heating unit and metal cover plates is inserted between two identical test specimens in a double-sided guarded hot plate apparatus. On the other side of each test specimen, there is a plane cooling plate. During measurement, a constant heat flow is adjusted based on which and based on the surface temperatures, the thermal insulation resistance is calculated.

Contact pressure: 2.1 kPa

Table 1: Results

Date of testing: 05.09.2024	Unit	1	2
Length	[mm]	250	250
Width	[mm]	250	250
Height (10 samples)	[mm]	43.5	43.9
Density	[kg/m ³]	252	242

Mean temperature of the sample surface hot plate side	Mean temperature of the sample surface cooling plate side	Mean difference of temperature	Mean temperature of the samples	Thermal conductivity
$\theta_{w,m}$	$\theta_{c,m}$	$\theta_{w,m} - \theta_{c,m}$	$\theta_m = (\theta_{c,m} + \theta_{w,m})/2$	λ_{10}
[°C]	[°C]	[K]	[°C]	[W/(m·K)]
15.2	4.8	10.4	10.0	0.0441


An average thickness of 5 mm results in a thermal resistance $R = 0.113 \text{ m}^2\cdot\text{K}/\text{W}$

The results of the tests exclusively relate to the items tested. This document does not replace a certificate of conformity or suitability according to national and European building codes.

Leipzig, 16 September 2024



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