MFPA Leipzig GmbH

Leipzig Institute for Materials Research and Testing

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

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Work Group 4.1
Thermal Insulation

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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 4.1/25-106-1

12 August 2025
No. Copy 1

Contracting body: Scan Underlay
Ursusvej 16
8464 Galten
Denmark

Task: Testing the thermal conductivity according to EN 12667

Material: Laminate underlay

Product: Acoustic Silence 360

Delivery date: 08.07.2025

Person in charge: B.Eng. Bruno Vollmer

This report consists of 4 pages.

1 Objectives and material

MFPA Leipzig GmbH was commissioned to test the thermal conductivity according to DIN EN 12667 at 24 °C mean temperature of laminate underlay “Acoustic Silence 360”.

For the test, a roll of the material with a width of approximately 1000 mm was delivered to MFPA Leipzig GmbH on 8 July 2025. Further information on the material is not available.

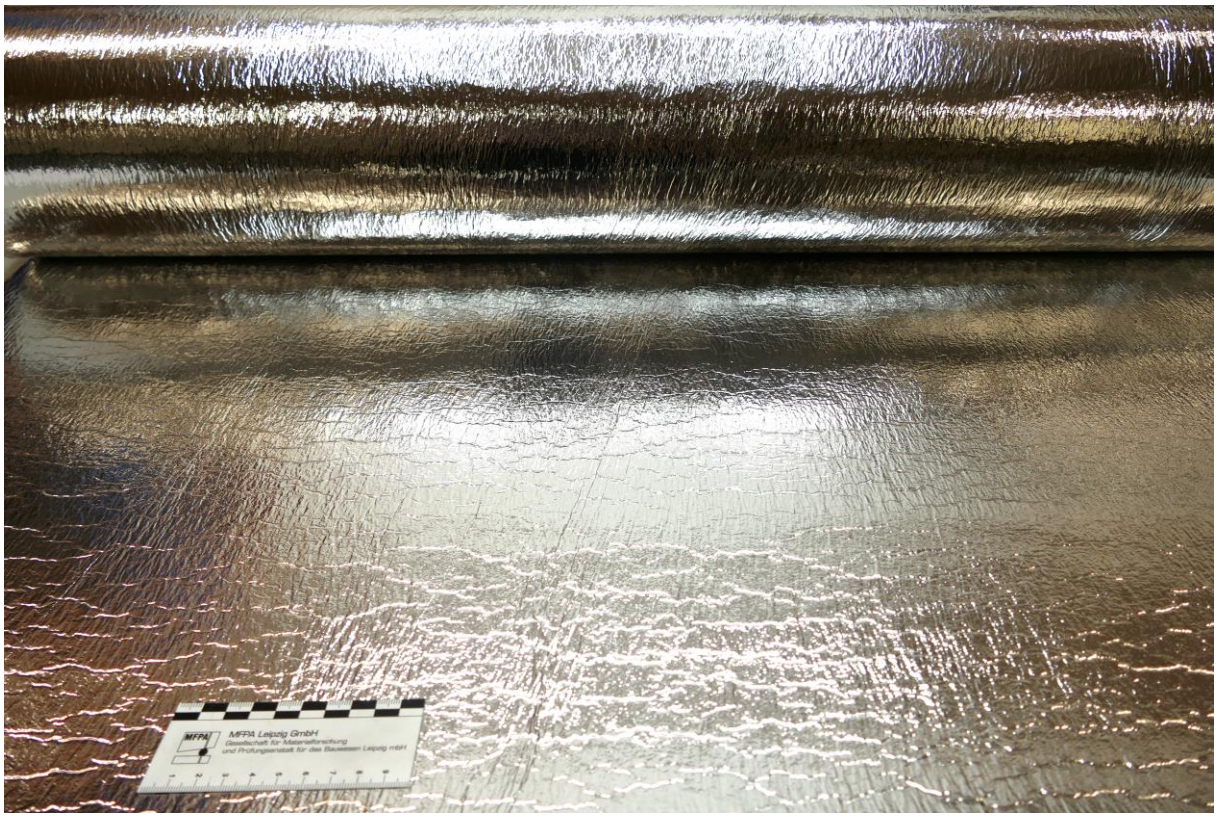

Figure 1: Delivered material

2 Thermal conductivity acc. to EN 12667

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 EN 12667:2001

Conditioning:	Storing at (23 ± 5) °C and (50 ± 5) % relative humidity for at least 6 h
Specimen:	2 specimens, 249 mm x 249 mm x 38 mm (34 layers)
Testing device:	Testing the dimensions with digital caliper Testing the mass with top pan scale Testing the thermal conductivity with the double-sided guarded hot plate apparatus according to DIN EN 12667; Taurus, Typ: TLP500 GX-1/-2
Testing temperature:	The test was carried out at a mean temperature of 24 °C.
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:	approx 1 kPa

Table 1: Thermal conductivity

Test date: 11.08.2025	Unit	Samples	
Length	[mm]	248.5	249.0
Width	[mm]	248.3	249.0
Height (34 layers)	[mm]	37.8	39.0
Density	[kg/m³]	331.4	327.9

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_{24}
[°C]	[°C]	[K]	[°C]	[W/(m·K)]
29.4	18.6	10.8	24.0	0.0520
This results in a thermal resistance R of 0.0212 [m²·K/W] for an average thickness of 1.1 mm.				

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, 12 August 2025

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