



**TURKISH STANDARDS INSTITUTE TESTING
and CALIBRATION
CENTER PRESIDENCY
BUILDING ACOUSTICS LABORATORY
DIRECTORATE**



*TURKISH STANDARDS INSTITUTION HEADSHIP
OF TEST and CALIBRATION CENTER
CONSTRUCTION MATERIALS FIRE AND ACOUSTICS LABORATORY*

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INSPECTION AND TEST REPORT
TEST REPORT

Requestor/Company :
INSULATION INDUSTRY AND TRADE

(Name, Address, City, etc.)
Requesting/Customer (Name, Adress, City etc.)

NP IZ CONSTRUCTION INTERIOR ARCHITECTURE CONSTRUCTION

LIMITED LIABILITY COMPANY
ATALAR MAH. GÖK SK. Interior Door No:5 A KARTAL ISTANBUL
25.09.2024 / 2024-262577

Test Request Date / No:
Order Date/No.

Description of Sample :
(Type, Brand, Class, Type, Type, Type, Model, etc.)
Sample Description (Type,Mark,Class,Model etc.)

2024-308561, Nishplas., 1, 1.00, set

Sample Acceptance Date :
Sample Receipt Date

03.10.2024

Date of Experiments :
Date of Test

30.09.2024 / 07.01.2025

Standard Method Applied:
Applied Standard/Method
resistance

TS EN 12086/TS EN 12086 Water Vapor Permeability, TS EN 12664/TS EN 12664
(Sheet) Thermal resistance for dry and damp products with medium and low thermal
determination of resistance

Number of pages of the report :
Number of pages of the report

5

Experiment Result :
Test Result

-

Remarks :
Remarks

The results obtained from the inspection and tests carried out in our laboratory for the sample described above are given on the following pages.
The testing and /or measurement results are given on the following pages which are part of this report.

TSE Testing and Calibration Center Directorate Testing Laboratories operating as testing laboratories accredited by TÜRKAK with AB-0001-T according to TS EN ISO/IEC 17025:2017 standard.
TSE Headship of Test and Calibration Center Testing Laboratories accredited by TÜRKAK under registration number AB-0001-T for TS EN ISO/IEC 17025:2017 as test laboratory.
TÜRKAK has signed a Multilateral Agreement with the European Accreditation Association (EA) and a mutual recognition agreement with the International Laboratory Accreditation Cooperation (ILAC) for the recognition of test reports.
TÜRKAK is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.
Test and/or measurement results, expanded measurement uncertainties (where applicable) and test methods are given in the following pages, which are an integral part of this report.
The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.



History
Date

07.01.2025

Experiment Supervisor
Person in charge of test

ENGİN YILDIZ

Controller
Reviewer

CEREN KEZBAN GÜLPINAR

Approved by
Approved by

SENCER GÜVEN

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INSPECTION - TEST RESULTS

TEST RESULTS

Request No : 2024-262577
Sample No Brand : 2024-308561
^a Sample Code ^a : "NISHPLAS."
Sample Description ^a : "-."
: "HeatSound and Moisture Insulated Wall Coating Plaster with Organic and Synthetic Cotton Fibers, Natural Mica Stone and Cellulosic Water Based Natural Binder."
Type of Examination
Laboratory Conditions : Special Review
: (23±1)°C Temperature, %(50±3) Relative Humidity.

^a: Declaration of the customer requesting the test.

Note Sample(s) collected by the customer and delivered to the laboratory.

Applied Experimental Methods	
No	Standard Name
TS EN 12664:2009	Determination of Thermal Resistance by Methods Using Protected Table Heater and Heat Flux Meter - Dry and Damp Products with Medium and Low Thermal Resistance
TS EN ISO 12572:2016	Performance of Materials and Products Used in Buildings Regarding Heat and Moisture Relationship - Water Determination of Vapor Transmission Properties - Vessel Method *

TS EN 12664: 2009 Thermal Resistance by Methods Using Protected Table Heater and Heat Flux Meter Determination - Dry and Moist Products with Medium and Low Thermal Resistance

Experiment Completion Date: 22.11.2024

CONFORMITY EVALUATION (Thermal Conductivity, λ)

By Manufacturer Declared Value, λ_D	Required by the Product Standard	Found in Value, $\lambda_{10,(23,50)}$	Eligibility Status
-	The Thermal Conductivity Value found as a result of the test should not be greater than the declared value.	0.0645 W/(m-K)	Note 4

CONFORMITY EVALUATION (Thermal ResistanceR)

Manufacturer Declared Value, R_D	Required by the Product Standard	Found Value, R_b	Eligibility Status
-	The Thermal Resistance Value found as a result of the test should not be smaller than the declared value.	0.040 m²-K/W	Note 4

^b In order to reach the minimum measurement thickness, 10 samples placed on top of each other and tested. The Thermal Resistance Value found is valid for a single sample with an average thickness of 2.57 mm.



INSPECTION - TEST RESULTS

TEST RESULTS

Details of the Experiment

Density of the Sample at the Time of Testing		Information about the Sample Stabilized in the Device			
		The Cold Side Surface Temperature	Hot Side Surface Temperature	Average Temperature Difference between Surfaces	Average Experiment Temperature
334.9 kg/m ³		5.1 °C	14.9 °C	9,9 K	10.0 °C
Conditioning of the sample: At (23±2) °C temperature and (50±5) % relative humidity constant mass.					
Product Standard to which the Sample Tested Belongs					-
Device Specifications	Type of Device (and Equipment) Used				Device with an Experimental Part
	Experimental Device Used				Heat Flow Meter (HFM)
	Method to Reduce Edge Heat Losses				Laboratory ambient air from the conditions.
	Device Orientation				Horizontal
	Position of the Hot Surface of the Test Piece				Top
	Heat Flow Direction				Down
Characteristics of Certified Standard Reference Material Used for Calibration	Type.				IRMM 440-B Glass Wool
	Certification Source				IRMM (Institute for Reference Materials and Measurements)
	Certificate Test Number				S 127 D-42
	Thermal Resistance				1,124 m ² -K/W
	Certification Date				26.02.2021
	Calibration Expiration Date				25.02.2026
	Date of Last Calibration of Meter with Reference Material				05.11.2024
Before Experiment	Width of Test Piece (mm)				498
	Length of Test Piece (mm)				502
	Thickness of the Test Piece Measured by the Instrument (m)				0,0257
	Load Applied on the Test Piece by the Plates of the Testing Machine				400 N
	From Receipt of the Test Piece to the End of Conditioning (Test Relative and Percentage Mass Change until the Beginning), $\Delta m_c / \% \Delta m_c$				0,0081 / % 0,81
	Ambient Temperature Surrounding the Device During the Experiment				(23 ± 1) °C
	Ambient Temperature Around the Edges of the Test Piece During the Experiment				(10 ± 1) °C
	Use of Contact Plates in the Experiment				Not used.
	Use of Water Vapor Tight Exteriors in the Experiment (If used, information about the sheath used)				Not used.
	Thickness of the Test Piece Measured by the Instrument				0,0257 m
End of Experiment	Relative and Relative Strength of the Test Piece During the Experiment According to the Beginning of the Experiment Percentage Mass Change, $\Delta m_w / \% \Delta m_w$				0,00067 / % 0,067
	Thickness Variation of the Test Piece During the Test				0,0 / % 0
	Volume Change of the Test Piece during the Experiment				0,0 / % 0
	Full Duration of the Experiment				2 hours 51 minutes
	Duration of the Stable Part of the Test (If Required in the Product Standard)				-
	Heat Flow Rate Density				24.78 W/m ²



INSPECTION - TEST RESULTS

TEST RESULTS

TS EN ISO 12572: 2016 Performance of Materials and Products Used in Buildings Regarding Heat and Moisture Relationship - Determination of Water Vapor Transmission Properties - Cup Method *

Experiment Completion Date: 20.12.2024

ELIGIBILITY ASSESSMENT

Declared (μ)	Required by Product Standard (μ)	Average Value Found, Water Vapor Diffusion Resistance Factor, μ	Eligibility Status
-	-	32,3	Note 4

Details of the Experiment

Feature	Symbol	RESULTS					Unit
Sample No	-	1	2	3	4	5	-
Rate of Mass Change	G_{ort}	1,79E-08	1,92E-08	2,61E-08	1,88E-08	2,02E-08	kg/s
Sample Thickness	d	4,33E-03	4,48E-03	3,96E-03	4,18E-03	4,10E-03	m
Water Vapor Flow Density (Water Vapor Transmission Flow Rate)	g	1,79E-06	1,92E-06	2,61E-06	1,88E-06	2,02E-06	kg/(m ² ·s)
Water Vapor Pressure Difference across the Test Specimen	Δ_p	1400					Pa
Water Vapor Transition	W	1,28E-09	1,37E-09	1,86E-09	1,34E-09	1,44E-09	kg/(m ² ·s·Pa)
Water Vapor Resistance	Z	7,82E+08	7,30E+08	5,37E+08	7,44E+08	6,93E+08	m ² ·s·Pa/kg
Water Vapor Permeability	δ	5,54E-12	6,13E-12	7,37E-12	5,61E-12	5,91E-12	kg/(m·s·Pa)
Water Vapor of Air Permeability	δ_{air}	1,95E-10	1,95E-10	1,95E-10	1,95E-10	1,95E-10	kg/(m·s·Pa)
Water Vapor Diffusion Resistance Factor	μ	35,21	31,83	26,47	34,80	33,00	-
Water Vapor Diffusion Equivalent Air Layer Thickness	S_d	0,15	0,14	0,10	0,15	0,14	m
	μ_{ort}	32,26					-
	S_{dort}	0,14					m

Experimental Condition = 23 °C - 0/50 RH (Experimental Set A); The external environment of the experimental setup is (23 ± 1) °C temperature and (50 ± 3) % relative humidity, the internal environment is (23 ± 1) °C temperature and (0 ± 3) % relative humidity (moisture absorbent calcium chloride (CaCl₂)).

* Not covered by accreditation.



INSPECTION - TEST RESULTS

TEST RESULTS

ABBREVIATIONS:

This test cannot be applied to the test specimen.	N/U
The test specimen meets the requirements.	G (Passed)
The test specimen does not meet the requirements.	K (Stayed)

EXPLANATIONS:

No assessment (assessment in the standard criterion is not specified).	Note 1
This experiment was not requested.	Note 2
This experiment cannot be performed with the facilities of our laboratory.	Note 3
Since no declaration/conditions are specified for this test could not be evaluated.	Note 4
This experiment could not be performed due to instrument malfunction.	Note 5

End of experiment report.