

## TEST REPORT

Document n.	n° 158/2023-B	Copy n.	1	Number of pages	6
Test item	Single-leaf door				
Product name	MULTIFRAME SECURITY				
Serial number	-				
Manufacturer	TEHNI S.A. - PANTELOS 2nd Km KIMMERIA – 67100 PIGADIA XANTHI - GREECE				
Customer	TEHNI S.A. - PANTELOS 2nd Km KIMMERIA – 67100 PIGADIA XANTHI - GREECE				
Test date	from 04/04/2023 to 04/04/2023				
Test lab	ISMES S.p.A. Via Lago dei Tartari, 3D-3E 00012 Guidonia Montecelio (RM)				
Tests performed	Thermal performance of windows, doors and shutters – Calculation of thermal transmittance				

The object under test, built in accordance with the data and characteristics provided by the customer, was subjected to a series of experimental tests in accordance with the following normative documents:  
**UNI EN ISO 10077-1:2018 General**  
**UNI EN ISO 10077-2:2018 Numerical method for frames**

The test results in this document refer to the sample(s) tested only. The results of the tests are documented by the records reported in this document. The geometrical and structural characteristics of the sample(s) are shown in the attached description, provided by the Customer, which forms an integral part of this test report. The responsibility for the conformity of each sample having the same denomination as the one tested rests with the manufacturer.

08/05/2023

Date

Test Operator

Gen. Danilo Massi



Director

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LAB N° 1923 L

The laboratory meets the requirements of the ISO/IEC 17025:2017 standard "General requirements for the competence of testing and calibration laboratories". The validity of the accreditation and the list of accredited tests can be verified on the WEB site: [www.istedil.it](http://www.istedil.it)

ISMES S.p.A.

Via Lago dei Tartari, 3D-3E  
I-00012 Guidonia, (Roma)  
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e-mail: [info@istedil.it](mailto:info@istedil.it)  
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Capitale sociale € 200.000  
interamente versato  
Trib. di Roma 1256/72-C.C.I.A.A 358813  
P.I. IT00887271005-C.F. 00422780585

Società soggetta ad attività di Direzione e coordinamento di CESI S.p.A.

**Customer's personnel present at the tests**

n.a.

**Recognition of the sample under test**

The manufacturer/customer guarantees that the tested sample is manufactured according to the presented technical data sheet. ISMES has verified that the data reported in this form adequately represent the essential details and parts of the sample tested in terms of shape and size. The technical file, identified by ISMES and numbered 158/2023-A n. 01 to 02, attached to this report, was also delivered to the Customer.

**Test results**

Standard	Test	Result
UNI EN ISO 10077-1:2018	Calculation of thermal transmittance of door	$U_d = 1,06 \text{ W/m}^2\text{k}$
The decision rule in the conformity assessment is based on the simple acceptance method according to ILAC-G8:09/2019, without taking into account the measurement uncertainties		

**Measurement uncertainties**

The indicated measurement uncertainties are determined in accordance with JCGM Publication 100 "Evaluation of measurement data - Guide to the expression of uncertainty in measurement" and are based on the standard uncertainty multiplied by a coverage factor of 2, which for a normal distribution corresponds at a confidence level of approximately 95%.

## TEST REPORT

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Customer	TEHNI S.A. - PANTELOS 2nd Km KIMMERIA – 67100 PIGADIA XANTHI - GREECE				
Test date	from 04/04/2023 to 04/04/2023				
Test lab	ISMES S.p.A. Via Lago dei Tartari, 3D-3E 00012 Guidonia Montecelio (RM)				
Tests performed	Air permeability; Water tightness; Wind load resistance.				

The object under test, built in accordance with the data and characteristics provided by the customer, was subjected to a series of experimental tests in accordance with the following normative documents:  
 Air permeability (EN 1026:2016) - Classification (EN 12207:2017);  
 Water tightness (EN 1027:2016) - Classification (EN 12208:2000);  
 Wind load resistance (EN 12211:2016) - Classification (EN 12210:2016).

The test results in this document refer to the sample(s) tested only. The results of the tests are documented by the records reported in this document. The geometrical and structural characteristics of the sample(s) are shown in the attached description, provided by the Customer, which forms an integral part of this test report. The responsibility for the conformity of each sample having the same denomination as the one tested rests with the manufacturer.

05/04/2023

Date

  
Geom. Danilo Massi  
Test Operator

  
Dott. ing. Camillo Opsi  
Director

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Società soggetta ad attività di Direzione  
e coordinamento di CESI S.p.A.

**Customer's personnel present at the tests**

n.a.

**Recognition of the sample under test**

The manufacturer/customer guarantees that the tested sample is manufactured according to the presented technical data sheet. ISMES has verified that the data reported in this form adequately represent the essential details and parts of the sample tested in terms of shape and size. The technical file, identified by ISMES and numbered 158/2023 n. 01 to 02, attached to this report, was also delivered to the Customer.

**Test results**

Standard	Test	Result
The decision rule in the conformity assessment is based on the simple acceptance method according to ILAC-G8:09/2019, without taking into account the measurement uncertainties		

**Classification according to the applicable standard**

Standard	Test	Classification
UNI EN 12207:2017	Air permeability	<b>Classe 1</b>
UNI EN 12208:2000	Water tightness	<b>Classe 2A</b>
UNI EN 12210:2016	Wind load resistance	<b>Classe C3</b>

**Measurement uncertainties**

The indicated measurement uncertainties are determined in accordance with JCGM Publication 100 "Evaluation of measurement data - Guide to the expression of uncertainty in measurement" and are based on the standard uncertainty multiplied by a coverage factor of 2, which for a normal distribution corresponds at a confidence level of approximately 95%.

Atmospheric pressure		± 1 kPa
Temperature		± 3 °C
Relative humidity (25% ÷ 75% RH)		± 5%
Air flow	flows > 1 m <sup>3</sup> /h	± 5%
Pressure (test chamber)		± 5%
Time		± 5%
Linear deformation		± 5%
Length (distance)	line of nozzles	0 - 10 mm
	space between the nozzles	± 10 mm
Angular size	method 1A and 2A	0 - 2°
	method 1A and 2A – first row	± 0,2 l/min (per nozzle)
Water flow	method 1A e 2A – additional rows	± 0,1 l/min (per nozzle)
Air permeability	value ≥ 3 m <sup>3</sup> /h	± 10%
	value < 3 m <sup>3</sup> /h	± 0,30 m <sup>3</sup> /h

## TEST REPORT

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Customer	TEHNI S.A. - PANTELOS 2nd Km KIMMERIA – 67100 PIGADIA XANTHI - GREECE				
Test date	from 04/04/2023 to 04/04/2023				
Test lab	ISMES S.p.A. Via Lago dei Tartari, 3D-3E 00012 Guidonia Montecelio (RM)				
Tests performed	Resistance to manual burglary attempt				

The object under test, built in accordance with the data and characteristics provided by the customer, was subjected to a series of experimental tests in accordance with the following normative documents:  
Resistance to manual burglary attempt (EN 1630:2016) - Classification (EN 1627:2021)

The test results in this document refer to the sample(s) tested only. The results of the tests are documented by the records reported in this document. The geometrical and structural characteristics of the sample(s) are shown in the attached description, provided by the Customer, which forms an integral part of this test report. The responsibility for the conformity of each sample having the same denomination as the one tested rests with the manufacturer.

08/04/2023

Date

  
Geom. Danilo Masini  
Test Operator

  
Dott. ing. Camillo Orsi  
Director

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LAB N° 1923 L

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e coordinamento di CESI S.p.A.

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**Customer's personnel present at the tests**

n.a.

**Recognition of the sample under test**

The manufacturer/customer guarantees that the tested sample is manufactured according to the presented technical data sheet. ISMES has verified that the data reported in this form adequately represent the essential details and parts of the sample tested in terms of shape and size. The technical file, identified by ISMES and numbered 158/2023-A n. 01 to 02, attached to this report, was also delivered to the Customer.

**Test results**

Standard	Test	Result
UNI EN 1630:2021	Resistance to manual burglary attempt	Positive
The decision rule in the conformity assessment is based on the simple acceptance method according to ILAC-G8:09/2019, without taking into account the measurement uncertainties.		

**Classification according to the applicable standard**

Standard	Test	Classification
UNI EN 1627:2021	Resistance to manual burglary attempt - Requirements and classification	<b>RC 3</b>

**Measurement uncertainties**

The indicated measurement uncertainties are determined in accordance with JCGM Publication 100 "Evaluation of measurement data - Guide to the expression of uncertainty in measurement" and are based on the standard uncertainty multiplied by a coverage factor of 2, which for a normal distribution corresponds at a confidence level of approximately 95%.

Atmospheric pressure		± 1 kPa
Temperature		± 3 °C
Relative humidity (25% ÷ 75% RH)		± 5%
Air flow	flows > 1 m <sup>3</sup> /h	± 5%
Pressure (test chamber)		± 5%
Time		± 5%
Linear deformation		± 5%
Length (distance)	line of nozzles	0 - 10 mm
	space between the nozzles	± 10 mm
Angular size	method 1A and 2A	0 - 2°
	method 1A and 2A – first row	± 0,2 l/min (per nozzle)
Water flow	method 1A e 2A – additional rows	± 0,1 l/min (per nozzle)
Air permeability	value ≥ 3 m <sup>3</sup> /h	± 10%
	value < 3 m <sup>3</sup> /h	± 0,30 m <sup>3</sup> /h

## TEST REPORT No. 410097/16615/CPR

issued by Istituto Giordano in the capacity of notified test laboratory (No. 0407)  
pursuant to Regulation 305/2011/EU of the European Parliament  
and of the Council of 9 March 2011

Customer

**TEHNI PANTELOS S.A.**  
2nd km Kimerion - 67100 PIGADION XANTHI - Greece

Item<sup>#</sup>

door named  
"Multiframe Aluminium Security Door"

Activity

laboratory measurements of the airborne sound  
insulation in accordance with standard  
**UNI EN ISO 10140-2:2021**  
with reference to harmonised standard  
**UNI EN 14351-1:2016**

Results

**$R_w (C, C_{tr}) = 35 (-2, -4) \text{ dB}$**

Order:  
97993

Item origin:  
sampled and supplied by the customer

Identification of item received:  
2023/2760 dated 16 October 2023

Activity date:  
16 October 2023

Activity site:  
Istituto Giordano S.p.A. - Strada Erbosa Uno, 78 -  
47043 Gatteo (FC) - Italy

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(#) according to that stated by the customer.

Bellaria-Igea Marina - Italy, 26 October 2023

Chief Executive Officer

(Dott. Arch. Sara Lorenza Giordano)

  
Entero firmamento di Istit. GIORDANO

This document is made up of 8 pages and shall not be reproduced except in full without extrapolating parts of interest at the discretion of the customer, with the risk of favoring an incorrect interpretation of the results, except as defined at contractual level.

The results relate only to the item examined, as received, and are valid only in the conditions in which the activity was carried out.

The original of this document consists of an electronic document digitally signed pursuant to the applicable Italian Legislation.

Chief Test Technician:

Geom. Omar Nanni

Head of Acoustics and Vibrations Laboratory:

Dott. Andrea Cucchi

Technical Director:

Dott. Ing. Giuseppe Persano Adorno

Compiler: Agostino Vasini

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