



Prüfzentrum für Bauelemente

Dipl.-Ing. (FH) Rüdiger Müller

Fenster · windows
Rollläden · shutters
Türen + Tore · doors
Fassaden · curtain walling
Baubeschläge · building hardware

August 23, 2017 WT/YA

TEST REPORT NO. 17/08-A003-B1

PfB-Internal-No. 17/08-A371

Version 1.en

This test report only certifies the specifications of the tested product and does not prejudice the specifications of similar products. The tests performed in accordance with - EN 1026 : 2000-06 "Windows and doors –Air permeability –Test method" and EN 14019 "Curtain walling –Impact resistance – performance requirements"

Order No. 17/08-A003

Applicant Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti.
Hasanağa O.S.B. HOSAB San. Cad. No:33
Nilüfer - Bursa

Product type One leaf manual operated sliding door

Product name SCHMELZ HERMETIC OPERATION THEATRE DOOR

Conducted test - Air Permeability
- Impact Resistance

Responsible test person Dipl.-Ing. (FH) Rüdiger Müller

This report consists of 5 pages. The following are included as appendix:

- 1 Data sheet air permeability (attachment 1 of 10)
- 5 Pages technical documentation (attachment 2 to 6 of 10)
- 8 Images of test sample (attachment 7 to 10 of 10)



Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en
PFB-Internal-No. 17/08-A371
Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

Content

1	Introduction and Scope	3
2	Test Sample	3
2.1	Sampling and Test Sample Labelling	3
2.2	Technical Documentation	3
2.3	Technical Data of the Test Sample	3
3	Used Test Equipment and Gauges	4
4	Test	4
4.1	Person in Charge and Date of the Test	4
4.2	Description of the Test and Test Results	4
4.2.1	Air Permeability Test according to EN 1026	4
4.2.2	Impact resistance according to EN 14019	5
5	Classification of the Test Results	5
6	General	5

Attachment

Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en
PFB-Internal-No. 17/08-A371
Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

1 Introduction and Scope

The customer Emay confirmed the order by mailing the submission form on the 21 August 2017 to **PfB** Turkey, Atatürk Oganize Sanayi Bolgesi 10045 Sokak No 7, 35620 Çiğli – Izmir, Turkey. The order includes tests for the performance of manual operated sliding door according EN 1026 and EN 14019. The former test was performed in collaboration between **PfB** Turkey and the notified Body inspection authority Prüfzentrum für Bauelemente (**PfB**) on 22 August 2017.

The tests were conducted according below standards:

- EN 1026 : 2000-06 “Windows and doors –Air permeability –Test method”
- EN 14019:2004-06 “Curtain walling –Impact resistance – performance requirements”

The test results were classified according to below standards:

- EN 12207 : 2000-06 “Windows and doors –Air permeability –Classification”;
- EN 14019 : 2004-06 “Curtain walling –Impact resistance – performance requirements“

2 Test Sample

2.1 Sampling and Test Sample Labelling

The test sample was delivered to **PfB** on 22 August 2017 by Emay. The test sample was delivered mounted in a steel sub frame. The jointing between window frame and mounting frame was sealed by practical guidance.

Test sample	Labelling by customer	Labelling by PfB
One leaf manual operated sliding door	SCHMELZ HERMETIC OPERATION THEATRE DOOR	17/08-A003-P1

2.2 Technical Documentation

On 22 August 2017 the customer completed drawings and technical fact sheets with regard to the test sample submitted by e-mail. They have been provided with a **PfB** endorsement and attached to this test report. The applicant is responsible for the correctness and accuracy of the statements. These statements were reviewed only at random by **PfB**.

- “Schmelz hermetic operation theatre door-Page 1/7” (attachment 2)
- “Schmelz hermetic operation theatre door-Page 2/7” (attachment 3)
- “Schmelz hermetic operation theatre door-Page 3/7” (attachment 4)
- “Schmelz hermetic operation theatre door-Page 4/7” (attachment 5)
- “Schmelz hermetic operation theatre door-Page 5/7” (attachment 6)

Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en
 PFB-Internal-No. 17/08-A371
 Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

2.3 Technical Data of the Test Sample

Test sample no. 17/08-A003-P1

One leaf manual operated sliding door:

Total outside dimension (w x h): 1880 mm x 2280 mm

Leaf dimensions (w x h): 1375 mm x 2100 mm

Sealing: 11 mm bottom, 10 mm sides and top EPDM

Seal length on frame: 5,50 m.

Seal length on leaf: 1,37 m.

More details of the configuration of the test sample are given in 2.2 Technical Documentation.

3 Used Test Equipment and Gauges

Following equipments are used for the mentioned tests:

- Test wall with Inventory number 35001
 (Producer: Holten-Prueftechnik GmbH) connected
 with software for data acquisition for control and application
 of air pressure, measurement of air leakage rate and water
 spray with a controlled rate.

The measurement tolerance of the test-wall is in the limits of the requirements of the standard. The latest calibrations were done on 14th May 2017.

4 Test

4.1 Person in Charge and Date of the Test

Person in charge	Rüdiger Müller
Test person	Yigit Altug
Date	22 August 2017
Person present from the customer	None

4.2 Description of the Test and Test Results

4.2.1 Air Permeability Test according to EN 1026

On the outside face of the test sample first the positive pressure (over pressure) and then the negative pressure (suction) was applied. In order to determine the air leakage rate of the test sample, the pressure was slowly increased by steps of 50 Pa up to 300 Pa after this the steps of 150 Pa were applied up to 600 Pa. The leakage rates at the pressure steps were measured and recorded for 10 seconds.

Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en
 PFB-Internal-No. 17/08-A371
 Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

The equation $V_o = V_x * 293 / (273 + T_x) * P_x / (101,3)$ according EN 1026 was applied in order to convert the air amount to the 'Normal volume' under 'Normal conditions' and atmospheric pressure, where T_x is the air temperature in the measurement column and P_x the pressure of the air pressure during the test.

The results of the tests are given in table of the Data sheet 1: Air Permeability according to EN 1026 (attachment 1).

In the mentioned data sheets the measured values are converted to 'normal conditions' and related to the joint length and the surface area. Results were represented in given charts.

4.2.2 Impact resistance according to EN 14019

The impact resistance was performed according to EN 14019. The impact resistance was performed from the inside of the door. The top hung door was separated from top carrier rail at 200 mm first step drop height impact.

5 Classification of the Test Results

Based on the test results according to paragraph 4.2.1 to 4.2.2 the following classification can be applied.

Test report no. 17/08-A003-B1 Test sample no. 17/08-A003-P1 One leaf manual operated sliding door	Air Permeability EN 12207	Impact resistance EN 14019
Tested as delivery	Class 3	Class I0

6 General

The original document will be sent to the customer. The customer also receives a copy of the document in pdf format. One copy remains with **PfB**.

The results may only be applied exclusively on the tested test sample. Test results may be used for similar doors only if structure, material, components and production procedure are the same as the tested door.

PfB declares that they can not be claimed for recourse with regard to the content of the report.



Dipl. Ing. (FH) Rüdiger Müller
Head of Institute



Stephanskirchen
August 23, 2017



Yiğit Altuğ
Responsible Official

Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en'

PfB-Internal-No. 17/08-A371

Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

DataSheet 1: Air permeability EN 1026

Sample description: One leaf manual operated sliding door

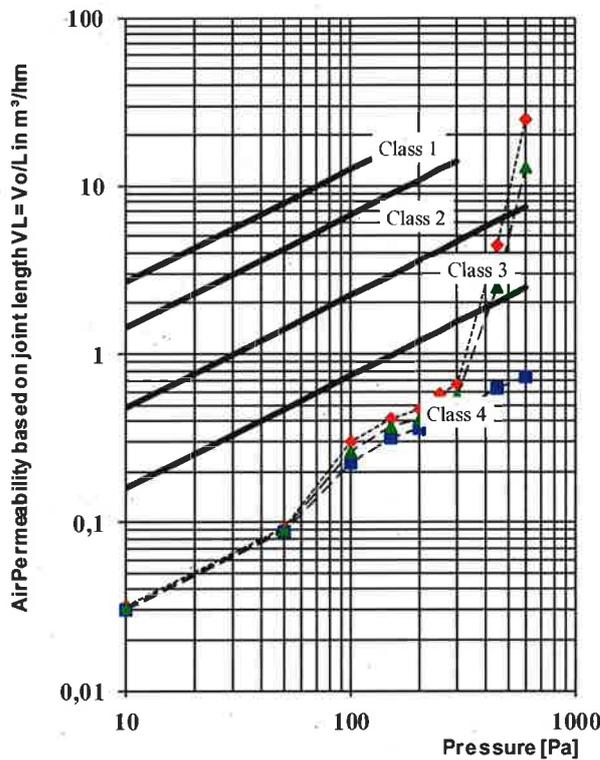
Testdate: 22.08.2017

Sample number 17/08-A003-P1 Condition: Tested as delivery

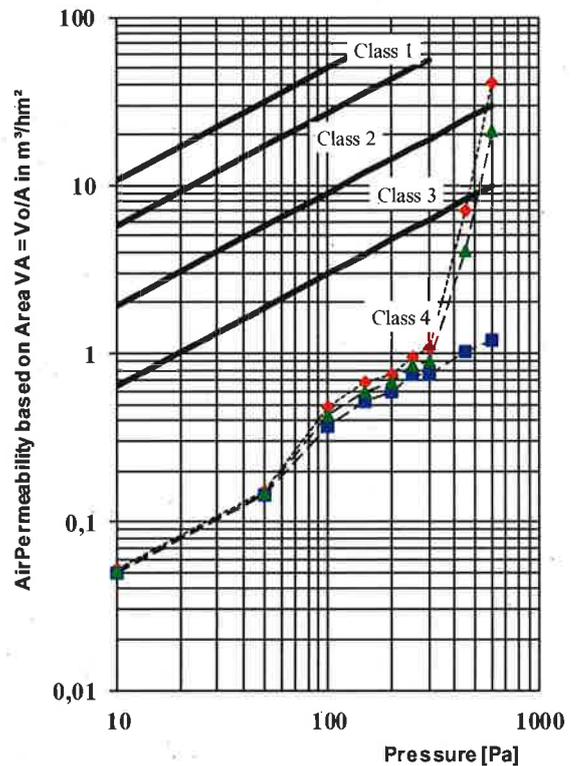
Measurements [mm]: Outer dimensions width: 1880 atmospheric pressure: 1007 hPa
Outer dimensions height: 2280 Temperature: 32 °C
Casement dimension width: 1375 Joint length L: 6,95 m
Casement dimension height: 2100 Area A: 4,29 m²

Table : airpermeability V₀ (corrected to normal conditions: 293 K, 101,3 kPa)

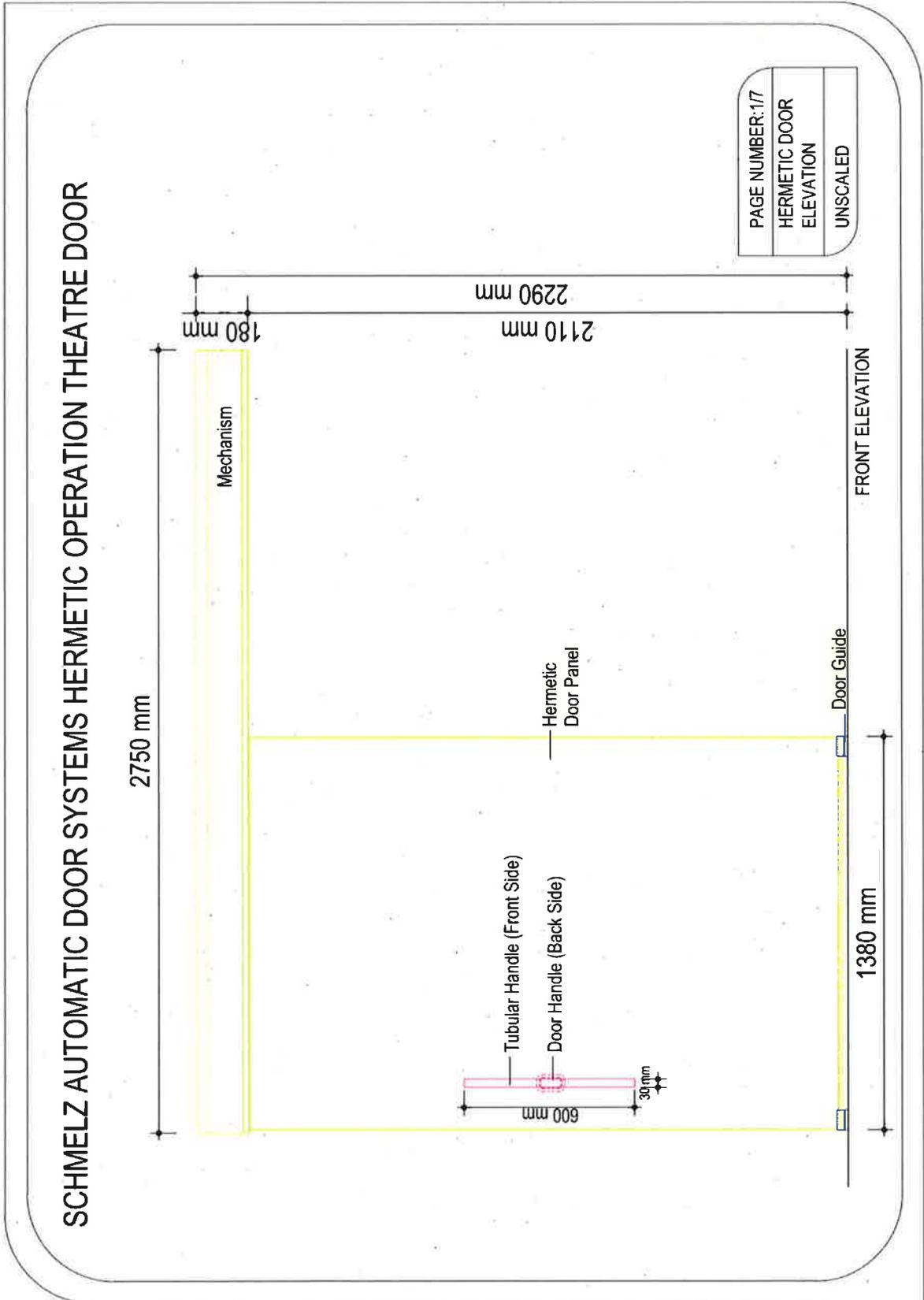
Test pressure difference (Pa)	10	50	100	150	200	250	300	450	600
V1 (pressure) (m ³ /h)	0,2	0,7	2,1	2,9	3,2	4,1	4,6	30,5	174,2
V2 (Suction) (m ³ /h)	0,2	0,6	1,6	2,2	2,5	3,3	3,2	4,4	5,1
V3 (average) (m ³ /h)	0,2	0,6	1,8	2,6	2,9	3,7	3,9	17,5	89,7
airpermeability based on jointlength									
VL1 (Druck) (m ³ /hm)	0,03	0,09	0,30	0,42	0,47	0,58	0,66	4,39	25,07
VL2 (Sog) (m ³ /hm)	0,03	0,09	0,23	0,32	0,37	0,47	0,46	0,63	0,74
VL3 (Mittelwert) (m ³ /hm)	0,03	0,09	0,26	0,37	0,42	0,53	0,56	2,51	12,90
airpermeability based on area									
VA1 (Druck) (m ³ /hm ²)	0,05	0,15	0,49	0,68	0,76	0,95	1,07	7,12	40,65
VA2 (Sog) (m ³ /hm ²)	0,05	0,15	0,37	0,52	0,59	0,76	0,75	1,02	1,20
VA3 (Mittelwert) (m ³ /hm ²)	0,05	0,15	0,43	0,60	0,67	0,85	0,91	4,07	20,92

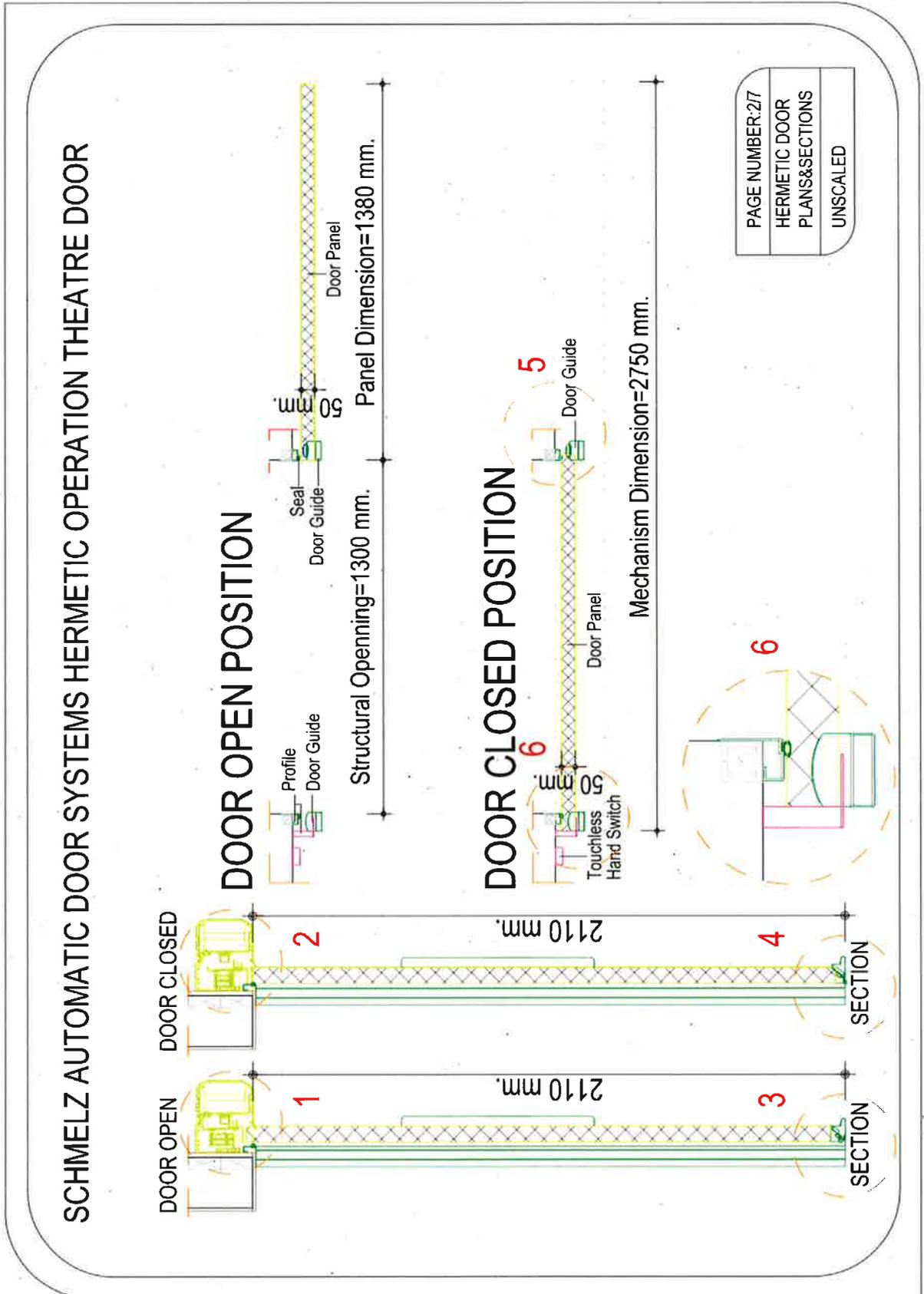


— Class 1 to Class 4 acc TS EN 12207
 - - - ● - - - VL1 (Pressure)
 - - - ■ - - - VL2 (Suction)
 - - - ▲ - - - VL3 (Average)



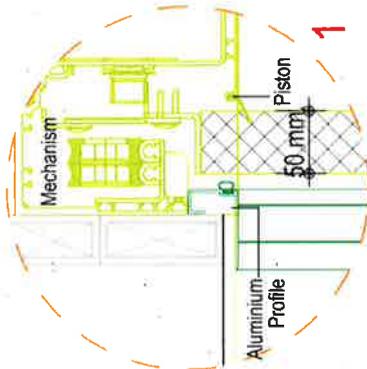
— Class 1 to Class 4 acc TS EN 12207
 - - - ● - - - VA1 (Pressure)
 - - - ■ - - - VA2 (Suction)
 - - - ▲ - - - VA3 (Average)





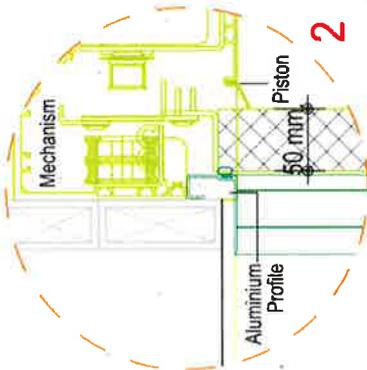
SCHMELZ AUTOMATIC DOOR SYSTEMS HERMETIC OPERATION THEATRE DOOR

DOOR OPEN POSITION



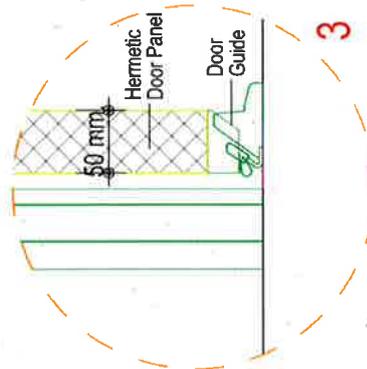
1

DOOR CLOSED POSITION



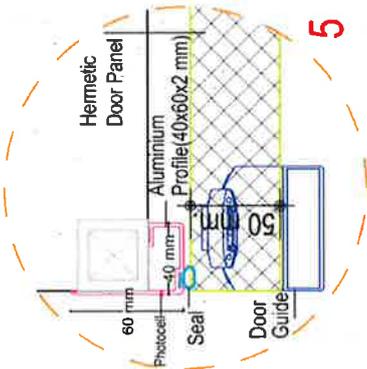
2

DOOR OPEN POSITION



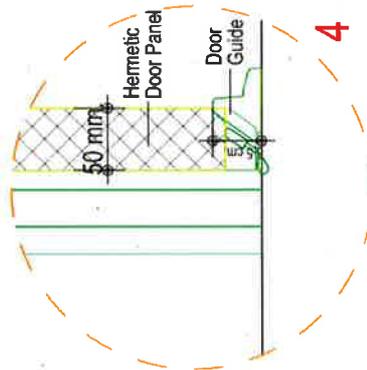
3

DOOR CLOSED POSITION



5

DOOR CLOSED POSITION

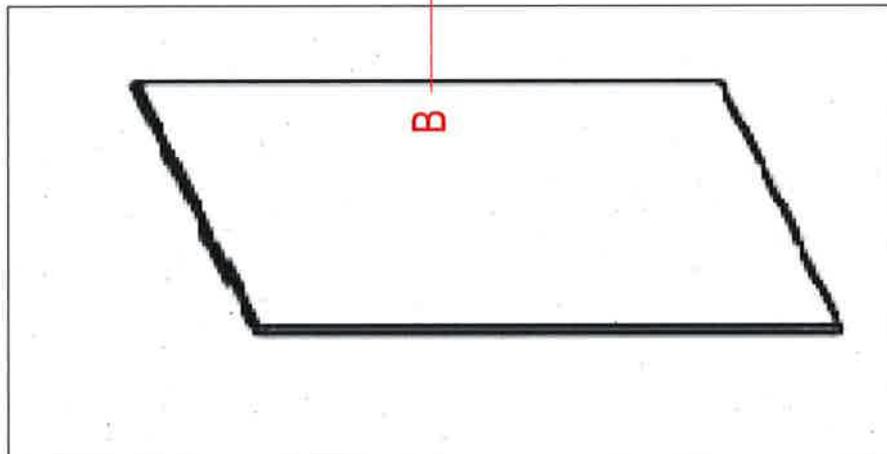


4

PAGE NUMBER:3/7
HERMETIC DOOR DETAILS
UNSCALED

SCHMELZ AUTOMATIC DOOR SYSTEMS HERMETIC OPERATION THEATRE DOOR

HERMETIC DOOR PANEL DETAILS



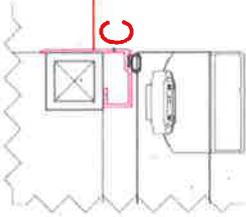
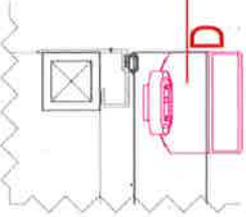
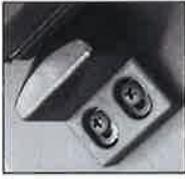
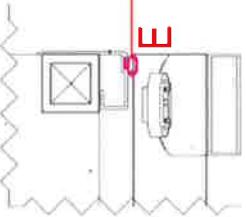
LAMINATED DOOR PANEL(50 mm)

0,4 mm	Laminate
5 mm	MDF
39,2 mm	Isolation Material
5 mm	MDF
0,4 mm	Laminate

PAGE NUMBER:47
HERMETIC DOOR PANEL
UNSCALED

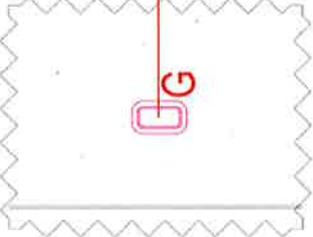
SCHMELZ AUTOMATIC DOOR SYSTEMS HERMETIC OPERATION THEATRE DOOR

ALUMINIUM&PLASTIC MATERIALS

 C	 SAMPLE PHOTO
 D	 SAMPLE PHOTO
 E	 SAMPLE PHOTO

DOOR HANDLES

SAMPLE PHOTOS

 F	 SAMPLE PHOTOS
 G	 SAMPLE PHOTOS

PAGE NUMBER:517
HERMETIC DOOR MATERIALS
UNSCALED

Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en'

PfB-Internal-No. 17/08-A371

Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

Image 1:
Test sample No.17/08-A003-P1,
on the test rig.



Image 2:
Test sample No.17/08-A003-P1,
frame sealing.



Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en'

PfB-Internal-No. 17/08-A371

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Image 3:

Test sample No.17/08-A003-P1,
bottom wing sealing.



Image 4:

Test sample No.17/08-A003-P1,
closed position.



Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en'

PfB-Internal-No. 17/08-A371

Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

Image 5:
Test sample No.17/08-A003-P1,
sliding system.

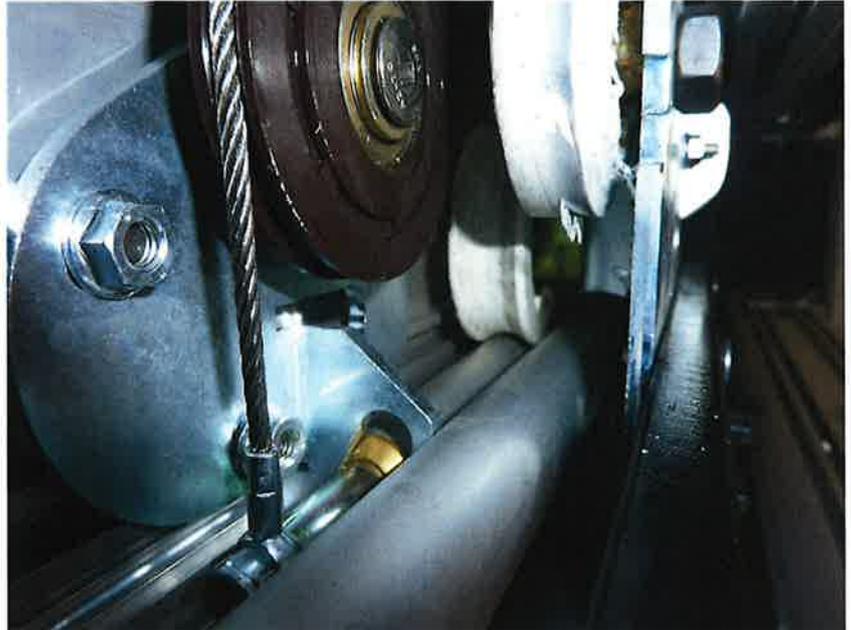


Image 6:
Test sample No.17/08-A003-P1,
opened position.



Test report No. 17/08-A003-B1 of August 23, 2017, Version 1.en'

PfB-Internal-No. 17/08-A371

Emay Metal Kalıp Mak.Müh.Asansör San.ve Tic. Ltd.Şti. Bursa

Image 7:
Test sample No.17/08-A003-P1,
sliding system.



Image 8:
Test sample No.17/08-A003-P1,
impact resistance test.

