



REI60 – Dolle

EN 1026:2016 Air permeability



**DANISH
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CPR 1235



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DOORS AND WINDOWS - TEST OF PERFORMANCE CHARACTERISTICS

Report no.: 149091

Performed for:

Dolle A/S
Vestergade 47
DK-7741 Frøstrup

Performed by:

Teknologisk Institut
Kongsvang allé 29
8000 Aarhus C

Pages: 9 (incl. frontpage & appendices)

Appendices: 1 (1 page total)

29. august 2022

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Test report

Client:	Dolle Vestergade 47 DK-7741 Frøstrup
Material:	Loft Hatch door, Model REI60, 1175 x 676 mm.
Sampling:	The test material was delivered by the client and received at the Danish Technological Institute on 2022-08-10. The test material was labelled 149091 .
Test period:	The testing was carried out on 10-08-2022.
Method:	EN 14351-1:2006 Windows and doors – Product standard, performance characteristics – +A2:2016: Part 1: Windows and external pedestrian doorsets. EN 1026:2016: Windows and doors – Air permeability – Test method
Result:	Classification of the test specimen according to EN 14351-1 4.2, 4.5 and 4.14 and the standards mentioned below: EN 1026:2016 Class 4 at ± 600 Pa Air permeability: EN 12207 - Windows and doors Air permeability - Classification
Storage:	The sample will be destroyed after 2 months if nothing else has been agreed in writing.
Terms:	Accredited testing was carried out in compliance with international requirements (EN/ISO/IEC 17025:2017) and in compliance with Danish Technological Institute's General Terms and Conditions regarding Commissioned Work accepted by Danish Technological Institute. The test results apply to the tested products only. This report may be quoted in extract only if the laboratory has granted its written consent.
Location:	2022-08-29, Danish Technological Institute, Building & Construction, Aarhus

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Description of test specimen

The test specimen is a hatch door, that consists of a wooden frame with one gasket and a white isolated doorplate, see drawings photo 1-3.

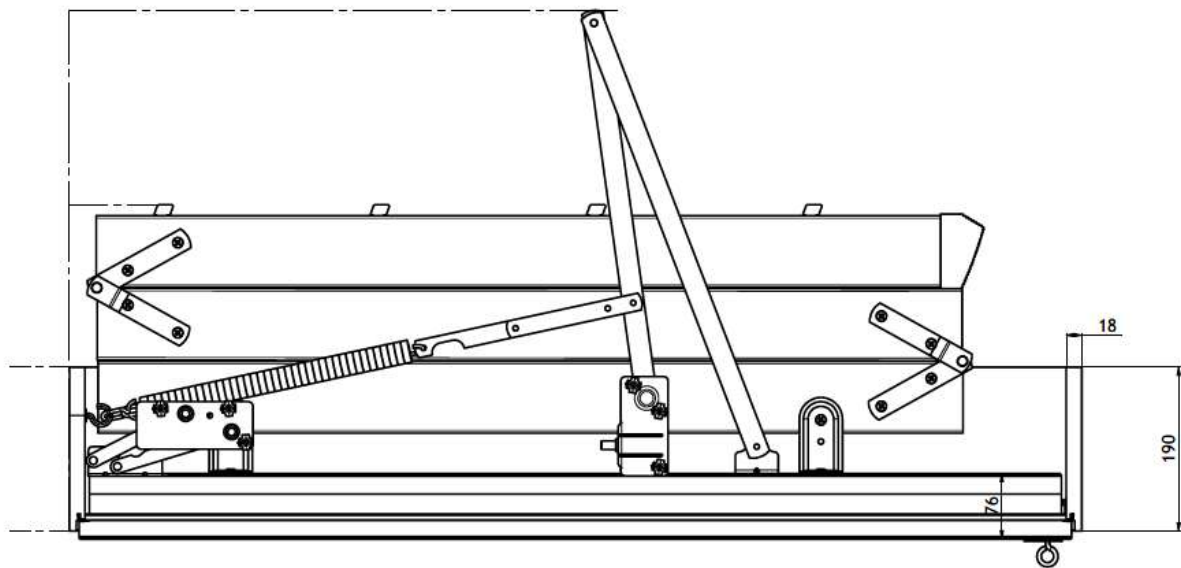


Photo 1: Drawing from Dolle

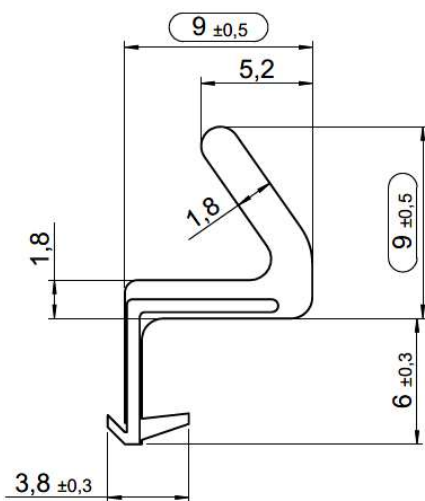


Photo 2: Drawing from Dolle

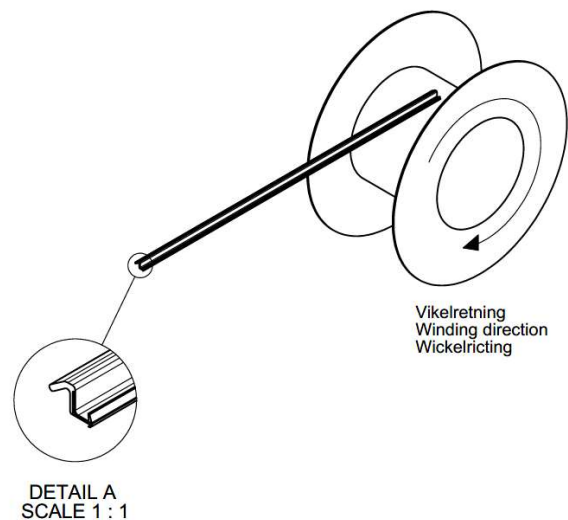


Photo 3: Drawing from Dolle



Before delivery to the laboratory the client had prepared a plywood sheet so the hatch door could be mounted in a hole in the sheet and grouted the cavities. The plywood sheet does not hinder the normal functioning of the element. The test conditions and the dimensions of the test specimen are measured by the laboratory and are given in the table below.

Closing condition, according to EN 12519 Windows and pedestrian doors - Terminology, during test: Closed

Width [mm]	Height [mm]	Area [m ²]	Length of joint [m]	Temperature [°C]	Relative humidity [%]	Atmospheric pressure [hPa]
677	1175	0.795	3.56	22.4	56.0	1025.8

The client has provided the following information about the construction of the test specimen:

Product name	REI60
Width x height	1175 x 676
Gasket	Q-LON QL3139-1-700P



Photo 1: Hatch door, open

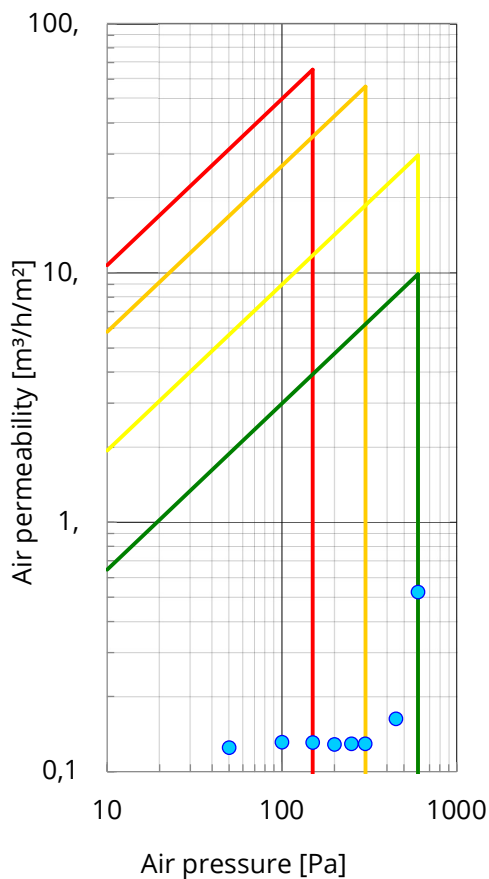


Photo 2: Gasket

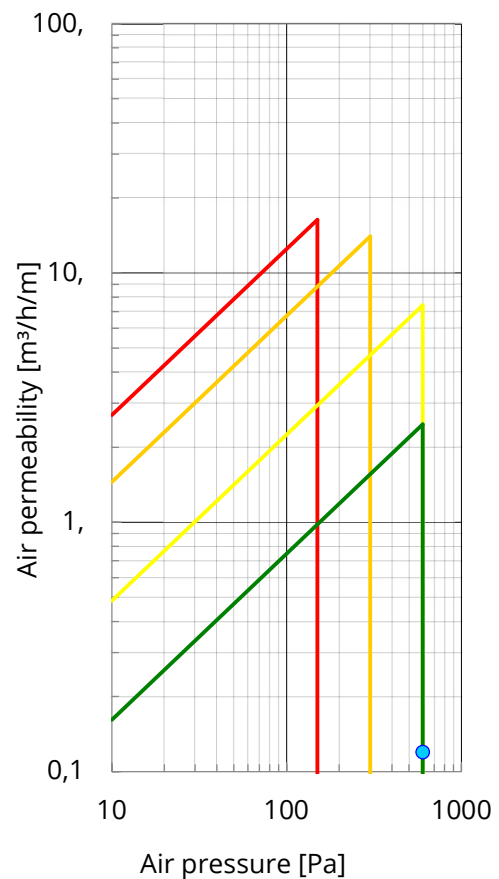


Test results – Air permeability – Positive air pressure

Air pressure [Pa]	Air flow Total [m ³ /h]	Air flow Area [m ³ /h/m ²]	Air flow Length of joint [m ³ /h/m]	Class Area [-]	Class Length of joint [-]
50	≤0.10	≤0.13	≤0.03	4	4
100	≤0.10	≤0.13	≤0.03	4	4
150	≤0.10	≤0.13	≤0.03	4	4
200	≤0.10	≤0.13	≤0.03	4	4
250	≤0.10	≤0.13	≤0.03	4	4
300	≤0.10	≤0.13	≤0.03	4	4
450	0.13	0.16	0.04	4	4
600	0.42	0.53	0.12	4	4



Air permeability related to area.



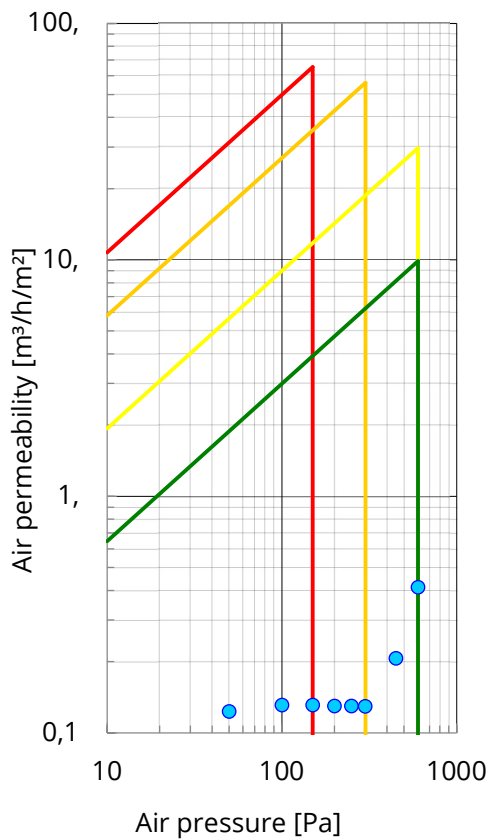
Air permeability related to length of joint.

The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red, orange, yellow and green fields respectively.

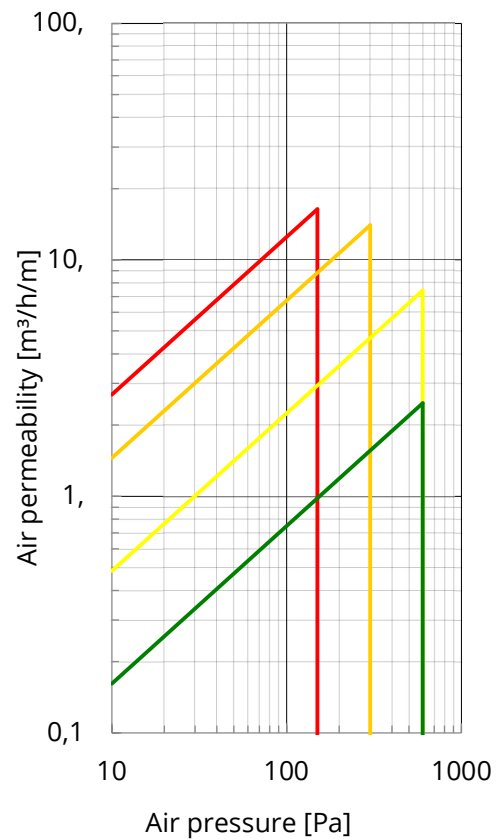


Test results – Air permeability – Negative air pressure

Air pressure [Pa]	Air flow Total [m³/h]	Air flow Area [m³/h/m²]	Air flow Length of joint [m³/h/m]	Class Area [-]	Class Length of joint [-]
50	≤0.10	≤0.12	≤0.03	4	4
100	≤0.10	≤0.13	≤0.03	4	4
150	≤0.10	≤0.13	≤0.03	4	4
200	≤0.10	≤0.13	≤0.03	4	4
250	≤0.10	≤0.13	≤0.03	4	4
300	≤0.10	≤0.13	≤0.03	4	4
450	0.16	0.21	0.04	4	4
600	0.33	0.41	0.09	4	4



Air permeability related to area.



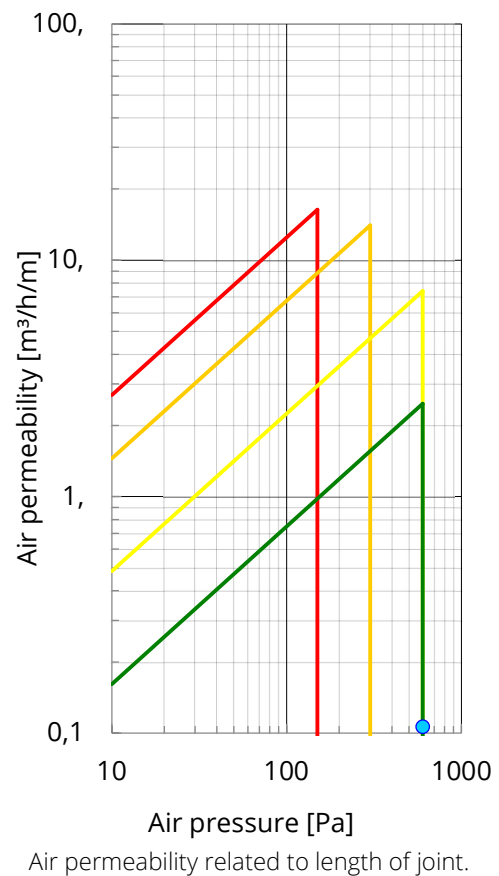
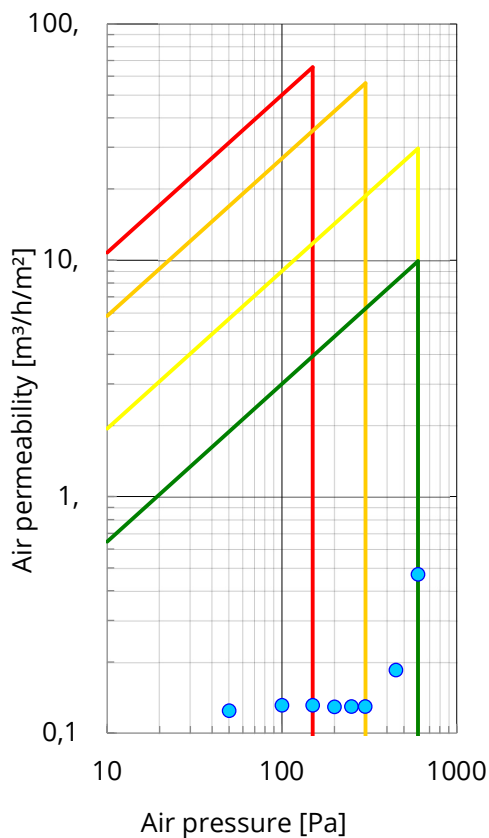
Air permeability related to length of joint.

The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red, orange, yellow and green fields respectively.



Test results – Average air permeability

Air pressure [Pa]	Air flow Total [m ³ /h]	Air flow Area [m ³ /h/m ²]	Air flow Length of joint [m ³ /h/m]	Class Area [-]	Class Length of joint [-]
50	≤0.10	≤0.12	≤0.03	4	4
100	≤0.10	≤0.13	≤0.03	4	4
150	≤0.10	≤0.13	≤0.03	4	4
200	≤0.10	≤0.13	≤0.03	4	4
250	≤0.10	≤0.13	≤0.03	4	4
300	≤0.10	≤0.13	≤0.03	4	4
450	0.15	0.19	0.04	4	4
600	0.37	0.47	0.11	4	4



The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red, orange, yellow and green fields respectively.



The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing or calibration at Danish Technological Institute and to the completion of test reports or calibration certificates within the relevant field.

Danish Accreditation (DANAK):

DANAK is the national accreditation body in Denmark in compliance with EU regulation No. 765/2008.

DANAK participates in the multilateral agreements for testing and calibration under European co-operation for Accreditation (EA) and under International Laboratory Accreditation Cooperation (ILAC) based on peer evaluation. Accredited test reports and calibration certificates issued by laboratories accredited by DANAK are recognized cross border by members of EA and ILAC equal to test reports and calibration certificates issued by these members' accredited laboratories.

The use of the accreditation mark on test reports and calibration certificates or reference to accreditation, documents that the service is provided as an accredited service under the company's DANAK accreditation according to EN ISO IEC 17025.

Construction Product Regulation:

In accordance with Regulation (EU) No. 305/2011 of the European Parliament and of the Council, the Construction Products Regulation (CPR), the test was conducted for the purpose of the assessment of the performance under AVCP System 3 as described in Regulation (EU) No. 568/2014 and in compliance with all applicable provisions of the CPR. The Danish Technological Institute is a notified body in accordance with CPR Article 48.

January 2021