



REPORT

issued by an Accredited Testing Laboratory

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Determination of air permeability, resistance to water penetration and resistance to wind load

(3 appendices)

This revision of the report is in response to a change of address.

Test object

The test object was a sectional overhead door of type TLB 40 Ribbed. The door was equipped with extension spring system.

The size of the door was 3000 mm daylight width and 2500 mm daylight height.

The door was supplied and fitted by the client in the opening of an airtight chamber, with its exterior facing inwards towards the chamber, see picture in appendix 3.

Test procedure

Air permeability

A positive air pressure was established in the chamber and the air leakage was measured at 50 Pa. The joint between the test chamber and the tracks of the door was sealed with airtight tape.

The test was done in accordance with EN 12427.

Resistance to water penetration

Water was applied through two horizontal rows of nozzles with eight nozzles in each. The upper row supplied 2 ± 0.2 l/min of water per nozzle. The lower row supplied 1 ± 0.1 l/min of water per nozzle.

The test was done in accordance with EN 12489.

Resistance to wind load

The door was tested in accordance with EN 12444 in an air pressure chamber. Before the test measures were taken to minimize air leakage in the door and its supporting construction. The air pressure in the test chamber was increased in steps in accordance with the different classes given in EN 12424.

After each step the bending of the door leaf was measured. The air pressure was then increased until the test was interrupted.

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Test results

Air permeability

Leakage at 50 Pa positive pressure: 9.4 m³/h,m²
Classification according to EN 12426: Class 2

Resistance to water penetration

The test was interrupted after 170 Pa and 55 minutes.
The result is shown more detailed in appendix 1.

Failure according to leakage H.
Classification according to EN 12425: Class 3, 150 Pa

Resistance to wind load

The door was equipped with two locking devices, one at each side of the door leaf, see picture in appendix 3.

The test was interrupted at an inner pressure of 1650 Pa.
No deformations were noted after the test.

The relation between air pressure and bending of the door leaf is shown in appendix 1.

Classification according to EN 12424: Class 5, 1200 Pa

Conditions of test

The test results refer only to the tested object.

Date of test: 2005-09-21
Date of arrival: 2005-09-20
Condition at arrival: No damage was noted
Equipment used: Test chamber no 200417, measuring equipment No. 202733, 202429 and 202735.
Estimated error margin: Air pressure difference ± 2 %, air flow ± 5 % and water flow ± 5 %
Ambient climate: Air temperature 23 °C, humidity 40 % and atmospheric pressure 1000 hPa
Water temperature: According to the requirements of the standard

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Performed by

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Appendices

- 1 Determination of resistance to water penetration
- 2 Pressure-deformation curves
- 3 Photo of the test object