

Handled by, department
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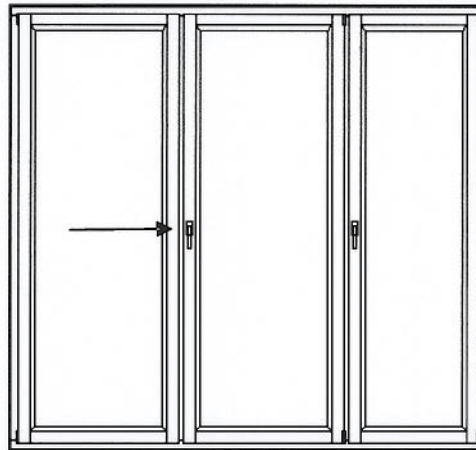
SIA "Stali"
 Kingas, Priekulu pagasts
 Priekulu novads
 LV-4126
 Latvia

Determination of air permeability, watertightness, resistance to wind load and operating forces

Test object

(see attached drawings and pictures)

Manufacturer: SIA "Stali"
 Type: Wooden patio door with a single opening section and one double opening section
 Size: 2400 x 2250 mm
 Condition at arrival: No visible damage
 Date of arrival: 2010-10-12
 Date of testing: 2010-10-14
 SP's serial number: 1212



The door was supplied by the client and installed in the test frame by SP.

Watertightness according to SS-EN 1027 method A up to 300 Pa

No leakage

The patio door meets the requirements for class 7A according to SS-EN 12208.

Resistance to wind load according to SS-EN 12211 class 3

Deflection test up to 1200 Pa

Pressure, Pa	Deflection of vertical casement section of double door (see diagram above) (measuring length 1950 mm)
0	1,4 mm
1200 positive pressure	4,4 mm
1200 negative pressure	-2,0 mm

The maximum relative frontal deflection was 1,76 per mille (requirement: <3,3 per mille according to SS-EN 12210 class C).

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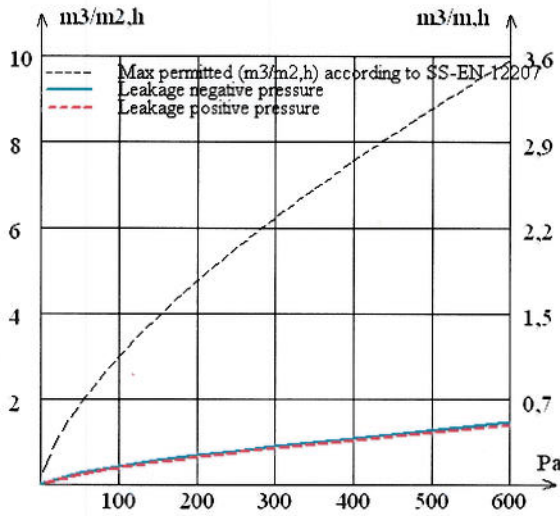
Repeated pressure test up to 600 Pa and safety test up to 1800 Pa

No damage noted.

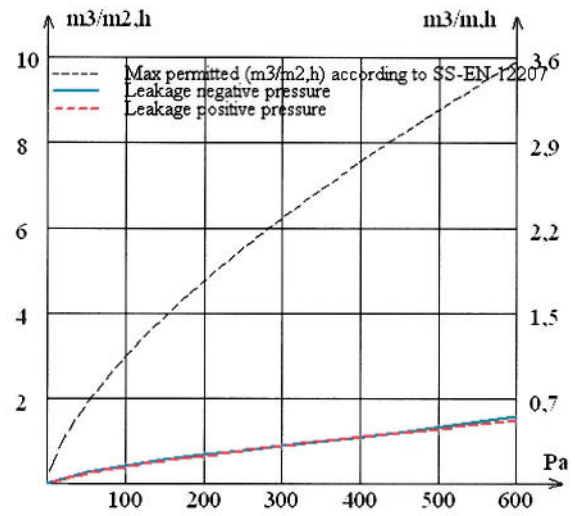
The patio door meets the requirements for class 3 according to SS-EN 12110

Air permeability according to SS-EN 1026 up to 600 Pa

Before wind loading:



After wind loading:



The patio door meets the requirements for class 4 according to SS-EN 12207 both before and after wind loading

Operating forces according to SS-EN 12046-1

Single door section: Opening force = 36 N
Closing force = 95 N

Double door section: Opening force = 59 N
Closing force = 118 N

The patio door meets the requirements for class 2 according to SS-EN 13115.

Conditions of test

The test results refer only to the tested object.

Equipment used: Test rig invnr 202206 and measuring equipment invnr 200746

Estimated error margin: Air pressure difference ± 2 Pa, air flow ± 5 %, deformation (wind load) $\pm 0,1$ mm and manoeuvrability ± 10 %

Test climate: Air temperature 20 °C, RH 40 %, air pressure 980 hPa

Water temperature: According to the standard

Conditioning: Laboratory climate after arrival to SP

SP Technical Research Institute of Sweden
Energy Technology – Building Physics and Indoor Environment



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