

In House Working Tests on IGLOO COMPACT complete range

TEST PURPOSE

- Is to certify that all the draught excluders of the series IGLOO COMPACT , conforming to the DOMATIC QUALITY STANDARD , have an operating life longer than 500,000 complete cycles . Reference is also made , in setting the tests , to the German Standard DIN 4102 .

Test Location

- EUROINVEST in house Laboratory for tests on building materials and components

Testing Machine

- TM02 , continuously cycled opened / closed door , worked by an electric motor , electronically controlled .
- Test Floor : chip – pressed wood panel , 25 mm. thick , rough surface according to German Standard DIN 4102
- Test Door speed : 400 opening and closing cycles per Hour , opening amplitude 60 degree

Settings of the Device Under Test

- Length of the IGLOO COMPACT under test : 1000 mm.
- Gap between the floor and the gasket when in resting position (opened door) : 8 mm.
- Setting of the command button projection for a resulting stroke of the gasket carrying profile of 10 mm. , when the door is completely closed .
- Command button directly operated on the door frame (aluminium) .

Features to be Tested

- 1) Gasket carrying profile properly dropping to the floor and retracting to the rest position
- 2) Gasket wear
- 3) Command button Projection
- 4) Wear of the Command Button driving head
- 5) Weakening of the return springs

Test Duration

- A first test stop is positioned at **200,000 cycles** , according to the requirement of the German Standard DIN 4102 .
- A second test stop is positioned at **500,000 cycles** , according to the Domatic Quality Control Standard .

Test Results Analysis

The testing procedure and the relevant results of the above listed features are as follows:

- 1) Gasket carrying profile properly dropping to the floor and retracting to the rest position
 - visual inspection of the proper contact of the gasket on the floor, all along the total length of the device
 - check by measure of the position of the gasket carrying profile when in resting position, door opened

Test passed, whether at 200.000, or at 500.000 cycles.

- 2) Gasket wear
 - visual inspection
 - measuring of the gasket thickness using a profile-scope

No Wear at 200.000 cycles

Thickness reduction measured from 0.9 mm. down to 0.75 mm. at 500.000 cycles

Test Passed

- 3) Command button Projection
 - measuring by digital calliper

Test passed, whether at 200.000, or at 500.000 cycles.

- 4) Wear of the Command Button driving head
 - visual inspection
 - measuring using a profile-scope.

Test passed, at 200.000 cycles

A wear corresponding to 0.15mm. has been measured at 500.000 cycles.

- 5) Weakening of the return springs
 - measuring by a load cell of the driving force for a stroke of 8 mm.

Whether at 200.000, or at 500.000 cycles, there has been no significant variation in the measured force, pointing out no weakening of the return spring.

Final consideration

From the above Test Results Analysis, it comes the statement that the Automatic Drough/ Excluder of the series IGLOO COMPACT, is still perfectly operating after 500.000 complete working cycles.

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