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29. Okt. 2014

Sommer Antriebs- und Funktechnik GmbH Hans-Böckler-Str. 21-27

D-73230 Kirchheim/Teck

Tyskland

Determination of resistance to wind load according to EN 13241-1 (1 appendix)

Test object

Client:

SOMMER Antriebs- und Funktechnik GmbH

Product name: Type of door:

DOCO SFR Tecsedo Sectional, overhead door

Daylight size:

Width 6000 mm, Height 3000 mm

The door was supplied and installed by the client in the opening of an airtight chamber, with its exterior facing inwards towards the chamber, see description and pictures in appendix 1.

During the tests was a simulated door operator connected to the top panel.

Test procedure

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.

The test was carried out in accordance with EN 12444.

Test results

After the inner pressure step of 770 Pa was the reinforcements on the panels deformed and the screws to the reinforcement have started to come loose.

No visible deformations were noted at pressure step, 620 Pa.

Classification according to EN 12424:

Class 2

Conditions of test

The test results refer only to the tested object.

Date of test:

2014-09-15

Place of test:

SOMMER test site in Kirchheim/Teck, Germany

Equipment used:

Measuring equipment no. 202429

Estimated error margin: Air pressure difference ±2 %

Ambient climate:

Air temperature 20 °C

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

Performed by

Examined by

Roger Davidsson

Börje Gustavsson

Appendix

1: Description and figures of the test object.



Appendix 1

Description and figures of the door

Manufacturer of the door DOCO

Product nameGarage door DOCO SFRType of doorOverhead, sectional doorDaylight size (wxh)6000 mm x 3000 mm

Producer and type of panel Tecsedo, fingersafe, residential

Total thickness of panel 40 mm

Thickness of sheet in panelOutside 0,6 mm / inside 0,45 mm

Type of tracks

Type of side hinges

DOCO 25734

Type of slide/roller

DOCO 25011-E

Type of intermediate hinges

DOCO 25733

Type of bottom bracket

DOCO 25056/57

Type of top sealing

DOCO 24740 series

Type of side sealing

DOCO 24740 series

Type of bottom sealingDOCO 825100Type of reinforcement on the panelDOCO 220900

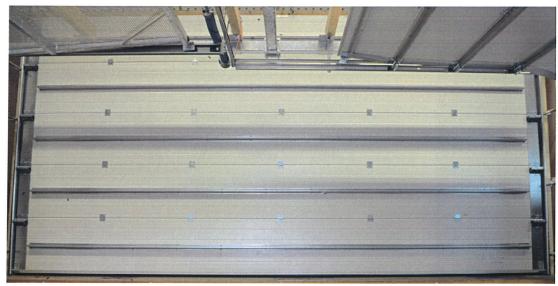


Figure 1. Door type DOCO SFR Tecsedo, mounted in the test rig, as seen from inside.



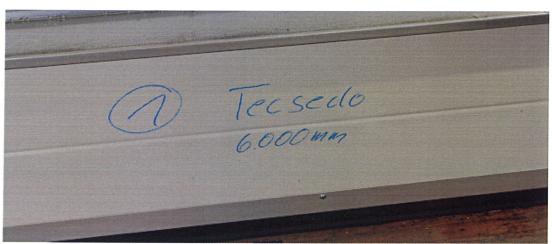


Figure 2. Marking on the test object.



Figure 3. Hinges, slides and roller.





Figure 4. The bottom bracket.

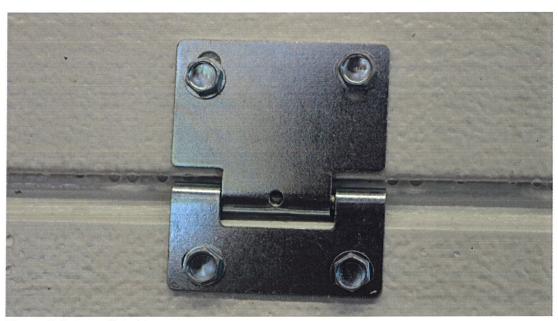


Figure 5. Intermediate hinge.



Appendix 1

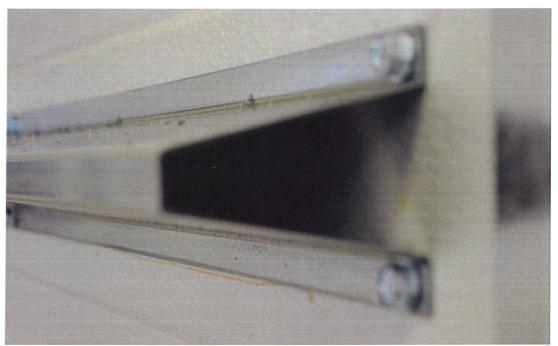


Figure 6. Reinforcement.

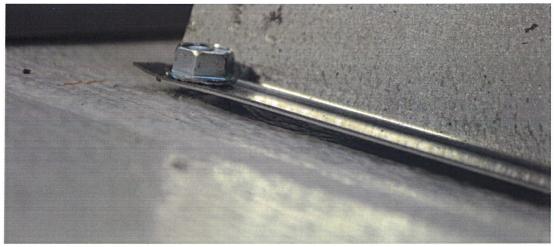


Figure 7. The screws to the reinforcement have started to come loose after pressure step at 770 Pa.