REPORT

issued by an Accredited Testing Laboratory

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9P02654

SP Testing

Preconal System AB
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Testing of burglary resistance according to SS-EN 1627:2011 RC3

(1 appendix)

Summary

A burglar resistance test of Preconal systems AB's door set 66 has been performed according to SS-EN 1627:2011 RC3.
The test object fulfilled the requirements according to SS-EN 1627:2011 RC3.

This report is not and should not be invoked as an approval of certification of the product.

1 Introduction

By commission of Preconal systems AB a burglar resistance test of door sets has been performed according to SS-EN 1627:2011 RC3. The purpose of the test was to evaluate if the test object fulfilled the requirements for classification RC3.

2 Test object

Manufacturer:	Preconal systems AB.
Tested object:	One single door.
Description of the sample:	Door classed as a group 1 product according to SS-EN 1627:2011.
Technical documentation:	See appendix 1.
Description of samples:	See appendix 1.
Drawings:	See appendix 1.
Test object arrival at RISE:	2017-12-14 and 2019-03-21.
Selection of test object:	The test object has been selected by the client without RISE's assistance.
Tested object:	The door sets were designated 66 and was manufactured of aluminium profiles with window, see drawing in appendix 1.
Width:	1285 mm
Height:	2170 mm
Type of lock:	2 x Assa 511, security grade 7 and 1 x Assa 1560.
Type of hinges:	3 hinges, DrHahn series 60.
Strikes:	RC3 Preconal 66.
Cylinder:	Assa D12 round.

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3 Test Method and performance

Test method:	Burglary resistance test according to: • SS-EN 1628:2011+A1:2016 "Pedestrian door sets, windows, curtain walling, grilles and shutters – Burglar Resistance – Test method for the determination of resistance under static load ". • SS-EN 1629:2011+A1:2016 "Pedestrian door sets, windows, curtain walling, grilles and shutters – Burglar Resistance – Test method for the determination of resistance under dynamic loading. • SS-EN 1630:2011+A1:2016 "Pedestrian door sets, windows, curtain walling, grilles and shutters – Burglar Resistance – Test method for the determination of resistance to manual burglary attempts".
Test date:	2017-12-14 and 2019-03-21.
Test facility:	RISE – Safety – Mechanics research laboratory in Borås.
Test leader:	Christian Larsson.
Time keeper:	Christian Larsson and Peter Blomgren.
Tester:	Peter Blomgren, Christian Larsson and Lars-Ove Johansson.
Ambient temperature:	20.5° C.
Relative humidity:	27 %.
Film camera:	Yes.
Photographs:	N/A.
Assessment of documents:	The documents in appendix 1 fulfil the requirement in SS-EN 1627:2011.

4 Test results

The results reported relate only to the tested object and are valid only in conditions in which the test was performed.

4.1 Static load in accordance with SS-EN 1628:2011+A1:2016

Table 1. Static load in accordance with SS-EN 1628:2011+A1:2016

Position	Pressure type	Test load [kN]	Gap gauge type	Result
F3 lock	In opening direction	6	A	OK
F3 lower hinge	In opening direction	6	A	OK
F3 Glass	In opening direction	6	A	OK
F3 filling	In opening direction	6	A	OK
F1 between locks	In opening direction	3	B	OK

The requirements in SS-EN 1627 for static load, resistance class RC3, were fulfilled.

4.2 Dynamic load in accordance with SS-EN 1629:2011+A1:2016

Table 2. Dynamic load in accordance with SS-EN 1629:2011+A1:2016

Mass of the impactor:	50 kg
Drop height [mm]	750 mm

A pendulum impactor, with a mass of 50 kg, in accordance with SS EN 1629:2011+A1:2016 was dropped from a height of 750 mm once to each corner and three times to the centre of the glass and filling. The impact direction was towards the attack side of the door. Gap gauge D could during the testing not pass through any aperture of the product when using a force of 200 N applied directly to the door blade. The requirements in SS-EN 1627:2011 for dynamic load, resistance class RC3, are fulfilled from attack side.

4.3 Manual burglary attempts in accordance with SS-EN 1630:2011+A1:2016

Table 3. Manual burglary attempts in accordance with SS-EN 1630:2011+A1:2016

Zone of attack	Used tools	Operative time [min' s'']	Description
Hinges side*	Hack saw and crowbar.	**5.43 / >20.00**	Door not forced. **Passed.**
Lock side	Screwdrivers length 375 wedges and crowbar.	**5.13 / >20.00**	Door not forced. **Passed.**
Glass	Knife and crowbar	**5.32/<20.00**	Dorr not forced. **Passed.**
Filling	Crowbar	**6.26/<20.00**	Dorr not forced. **Passed.**

*Steel beads must be mounted on the screws.

The requirements in SS-EN 1627:2011 for manual burglary attempts, resistance class RC3, were fulfilled, attack side towards the opening direction.

4.4 Classification

The test specimen was subjected to the described tests defined in SS-EN 1627:2011 and was judged to fulfil the requirements of the resistance class given below. The door is classified when constructed according to drawings in appendix 1.

EN 1627:2011 RC3

Any additional change in design / construction is only allowed upon written permission and/or testing by the testing laboratory (see SS-EN 1627:2011, Annex D).
The test results showed in this report refer only to the tested object.

5 Measuring uncertainty

The measurement uncertainty of load ≤ 1.3 % and measuring of deformation ≤ 1.6 %. Reported uncertainty corresponds to an approximate 95 % confidence interval around the measured value. The interval has been calculated in accordance with EA-4/16 (EA guidelines on the expression of uncertainty in quantitative testing), which is normally accomplished by quadratic addition of the actual standard uncertainties and multiplication of the resulting combined standard uncertainty by the coverage factor k=2.

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Appendix

1. Drawings