REPORT

issued by notified body No. 0402

Contact person RISE
Elin Granberg
Product Certification
+46 10 516 62 23
elin.granberg@ri.se

Date	Reference	Page
2019-10-29	0402-CPR-566374	1 (7)

Testing

PFI End .Kapılar ve Otom. Sis. San. Tic. A.Ş.
HACI SABANCI OSB 23 NİSAN CAD. NO:8 SARIÇAM
01310 / ADANA
The Netherlands

Assessment of performance according to AVCP 3 for Industrial Doors

RISE Research Institutes of Sweden has as Notified Body no. 0402 assessed the performance for the construction product, Industrial doors. The assessment is performed according to the harmonized standard **EN 13241:2003+A2:2016 Industrial, commercial, garage doors and gates –** Product standard, performance characteristics. This report summarise the assessment and can be used as a part of the documentation required for drawing up a *Declaration of Performance* in accordance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR).

This report is a summary of those reports and includes also results from type tests performed by other Notified Bodies. The content of this report may be used as support for an Declaration of Performance in accordance with the CPR. It shall be noted that the client shall specify all the involved Notified Bodies and their numbers in the Declaration of Performance.

Product name and description

Industrial door name/type	PFI type NL, HL, VL, FTR, FLH-CE, FHL, LHR-CE
Weight of door, maximum	700 kg
Day-light, maximum	width 8500 mm; height 7000 mm
Day-light, tested	width 4000 mm; height 3500 mm width 4000 mm; height 3400 mm (for panels Hierros Costa, Italpannelli, Gliderol, Niemetz, Epco, Marcegaglia, Sicom, International Panel Company)
Panel manufacturer (type of panel)	Tecsedo, Metecno Door Panel
Hardware Flexi-Force	**2”** tracks, code 2V - rollers 2” code 574-60, 575-100, 584-60, 585-60 - vertical angle code 9VB, 9K, 9ZR, 9VD, 9VL, 9VK - side seal code 1085, 1094-40, 1084, 1088, 1088T, 1888TF, 1088I, 1088IT - top seal code 1036-36, 1036, 1036-52, 1036D, 1036DN **3”** tracks, code 13155 and 13236 - rollers 3” code 579-11-198, 578-12-198 - vertical angle code 9K, 9VL, 9VK - side seal code 1085, 1094-40, 1088T, 1888TF, 1088I, 1088IT - top seal code 1036-36, 1036, 1036-52, 1036D, 1036DN
Machinery/ Operator	See chapter 3 in this report
Balancing system	Torsion springs
Spring break device Flexi-Force	Type 670, 670S, 675 and 675-125 (see also chapter 1.5)
Cable break device Flexi-Force	2” 440-600, 440LHR, 440REGL, 444, 440HD, 440, 440S 3” 440-3 (see also chapter 1.5)
Safety edge	See chapter 3 in this report

Project no: 9P00353

SWEDAC ACKREDITERING
Accred. No. 1002
Testing
ISO/IEC 17025

1. Test of fully assembled Door

1. 1 Resistance to wind load according to part 4.4.3 of EN 13241:2003+A2:2016

Door panel type	Wind load Class	Maximum pressure [Pa]	Test report
Tecsedo nfs covered t=40 mm	**3**	-	1
Tecsedo nfs covered t=40 mm with pass door	**1**	-	1, 10
Metecno Door Panel Monowall nfs covered	**3**	-	1
Metecno Door Panel Monowall nfs covered, with pass door	**1**	-	1, 10
Metecno Door Panel Monowall nfs, with windows	**2**	-	1
Metecno Door Panel Monowall nfs, with windows and pass door	**0**	-	1, 10
Metecno Door Panel Monowall nfs, with windows, with cylinder lock & handle/footplate 1 or handle/footplate 2	**3**	-	1

Test reports SP No:
1) P403429, 2005-08-26 2) F520020, 2005-10-24 3) P805340A, 2008-12-15
4) P805340B, 2008-12-15 5) P805340C, 2008-12-15 6) P805340D, 2008-12-15 7) P905811A, 2009-11-20
8) P905811-01A, 2009-10-01 9) P908002C, 2010-03-22 10) P900807-03B, 2010-06-02 11) PX04884A, 2010-11-01
12) PX04884C, 2010-09-15 13) PX20720-02D, 2012-07-10 14) 3P00645A, 2013-02-12 15) PX20720-03A, 2013-02-24
16) PX20720-03B, 2013-02-24 17) 3P05443B, 2013-09-02 18) 3P05443C, 2013-09-02 19) 3P05443A, 2013-09-02
20) 5P06232-1, 2015-08-24 21) 5P06232-2, 2015-08-24 22) 5P06232-3, 2015-08-24 23) 6P01821-1, 2016-04-18
24) 6P05181-2, 2016-06-16 25) 8P01001-1, 2018-03-21 26) 8P01001-2, 2018-03-21 27) 8P01001-3, 2018-03-21
Fv=full vision; fs=fingersafe; nfs=non-fingersafe; cov=covered * only stated for class 5 results

1.2 Air permeability according to part 4.4.6 of EN 13241:2003+A2:2016

1.2.1 Door test

Door panel type	Air permeability Class	Test report
Tecsedo nfs covered t=40 mm	**3**	1
Tecsedo nfs covered t=40 mm with pass door	**1**	1, 10
Metecno Door Panel Monowall nfs covered	**4**	1
Metecno Door Panel Monowall nfs covered, with pass door	**2**	1
Metecno Door Panel Monowall nfs, with windows	**3**	1
Metecno Door Panel Monowall nfs, with windows and pass door	**1**	1, 10
Metecno Door Panel Monowall nfs with windows, with cylinder lock & handle/footplate 1 or handle/footplate 2	**3**	1

Test reports SP No:
1) P403429, 2005-08-26 2) F520020, 2005-10-24 3) P805340A, 2008-12-15
4) P805340B, 2008-12-15 5) P805340C, 2008-12-15 6) P805340D, 2008-12-15 7) P905811A, 2009-11-20
8) P905811-01A, 2009-10-01 9) P908002C, 2010-03-22 10) P900807-03B, 2010-06-02 11) PX04884A, 2010-11-01
12) PX04884C, 2010-09-15 13) PX20720-02D, 2012-07-10 14) 3P00645A, 2013-02-12 15) PX20720-03A, 2013-02-24
16) PX20720-03B, 2013-02-24 17) 3P05443B, 2013-09-02 18) 3P05443C, 2013-09-02 19) 3P05443A, 2013-09-02
20) 5P06232-1, 2015-08-24 21) 5P06232-2, 2015-08-24 22) 5P06232-3, 2015-08-24 23) 6P01821-1, 2016-04-18
24) 6P05181-2, 2016-06-16 25) 8P01001-1, 2018-03-21 26) 8P01001-2, 2018-03-21 27) 8P01001-3, 2018-03-21

Fv=full vision; fs=fingersafe; nfs=non-fingersafe; cov=covered

1.2.2 Window test

FF window types tested separately. One window was tested except for window type 2230, for which the worst case is shown in the table.

Window type, No	Note	Air leakage, m^3/h	Window type, No	Note	Air leakage, m^3/h
2210	1)	**<0.01**	2430	1)	**0.02**
2225N	1)	**<0.01**	2450NA	2)	**0.01**
2230	1)	**0.77**	2460NA	2)	**0.11**
2235	1)	**<0.01**			

Test reports SP: 1) P805340K, 2008-12-15 2) P908002A, 2010-02-19

1.3 Water tightness according to part 4.4.2 of EN 13241:2003+A2:2016

1.3.1 Door test

Door panel type	Water penetration class	Maximum pressure [Pa]	Test report
Tecsedo nfs covered t=40 mm	**1**	-	1
Tecsedo nfs covered t=40 mm with pass door	**0**	-	1, 10
Metecno Door Panel Monowall nfs covered	**3**	**70**	1
Metecno Door Panel Monowall nfs covered, with pass door	**0**	**-**	1
Metecno Door Panel Monowall nfs with all windows FF No. 2400-90	**0**	-	1
Metecno Door Panel Monowall nfs with all windows FF No. 2400-90 with pass door	**0**	-	1, 10
Metecno Door Panel Monowall nfs with: window no. 2380, window no. 2390 or window no. 2400-90 window no. 2445 or window no. 2397 cylinder lock no. 637 handle/footplate no. 640T handle/footplate no. 642BL	 **0** **0** **0** **0** **3**	 **-** **-** **-** **-** **70**	1
Metecno Door Panel Monowall nfs with: window no. 2400-90 window no. 2397 or cylinder lock no. 637 handle/footplate no. 640T	 **2** **0** **3**	 **-** **-** **70**	1

Test reports SP No:
1) P403429, 2005-08-26
2) F520020, 2005-10-24
3) P805340A, 2008-12-15
4) P805340B, 2008-12-15
5) P805340C, 2008-12-15
6) P805340D, 2008-12-15
7) P905811A, 2009-11-20
8) P905811-01A, 2009-10-01
9) P908002C, 2010-03-22
10) P900807-03B, 2010-06-02
11) PX04884A, 2010-11-01
12) PX04884C, 2010-09-15
13) PX04884I, 2010-12-02
14) PX20720-02D, 2012-07-10
15) 3P00645A, 2013-02-12
16) PX20720-03A, 2013-02-24
17) PX20720-03B, 2013-02-24
18) 3P05443B, 2013-09-02
19) 3P05443C, 2013-09-02
20) 3P05443A, 2013-09-02
21) 5P06232-1, 2015-08-24
22) 5P06232-2, 2015-08-24
23) 5P06232-3, 2015-08-24
24) 5P06232-5, 2015-09-18
25) 6P01821-1, 2016-04-18
26) 6P05181-2, 2016-06-16
27) 8P01001-1, 2018-03-21
28) 8P01001-2, 2018-03-21
29) 8P01001-4, 2018-05-03

Fv=full vision; fs=fingersafe; nfs=non-fingersafe; cov=covered

* only stated for class 3 results

1.3.2 Window test

FF window types tested separately. One window was tested except for window type 2230 where 2 windows were tested for which the lowest class is given in the table below.

Window type, No	Note	Water penetration class	Maximum pressure [Pa]
2210	1)	**3**	**150**
2225N	1)	**3**	**150**
2230	1)	**0**	**-**
2235	1)	**3**	**150**
2430	1)	**3**	**150**
2450NA	2)	**3**	**110**
2460NA	2)	**3**	**110**

Test reports SP: 1) P805340K, 2008-12-15 2) P908002A, 2010-02-19

1.4 Thermal resistance according to part 4.4.5 of EN 13241:2003+A2:2016

Door panel type	(door size mm)	Note	Thermal transmittance [W/(m²K)]						
		Note	p	pw	pd	pdS	pwd	g	gd
Metecno Door Panel, Monowall	(8500x7000)	1	**0.8**	**0.9**	**0.9**	**-**	**1.0**	**-**	**-**
Tecsedo	(8500x7000)	1	**0.8**	**0.9**	**1.0**	**-**	**1.0**	**-**	**-**

p = door with covered panels only
pw = covered panels with windows
gd = glazed door with a pass door
pdS = covered and with pass door SafeStep
pwd = covered panels with windows and a pass door
g = fully glazed door (full vision),
pd = covered panels with a pass door
NPD = No Performance Determined
Fv = Full vision; fs=fingersafe; nfs=non-fingersafe; cov=covered

1) Test report SP No. P403429, 2005-08-26
2) P805340L, rev2 2013-06-06
3) P905811-02, 2009-11-04 & P905811A, 2009-11-20
4) P908002U, 2010-04-06
5) P900807-03B, 2010-06-02
6) PX04884-01A, 2010-11-01
7) PX04884-01B, 2010-11-01
8) PX26056, 2012-08-20
9) PX20720-03A, 2013-02-24
10) PX20720-03B, 2013-02-24
11) PX29005r1, 2012-12-28
12) 3P08507-3, 2014-05-05
13) 3P08507-4, 2014-05-05
14) 3P08507-6, 2014-05-05
15) 3P08507-5, 2014-05-05
16) 5P06232-02-1, 2015-12-01
17) 5P06232-02-2, 2015-12-01
18) 5P06232-02-3, 2015-12-01
19) 5P06232-02-4, 2015-12-01
20) 6P01821-1, 2016-04-18
21) 6P01642, 2016-03-18
22) 8P04914-1, 2018-06-17

1.5 Safe opening according to part 4.2.8 of EN 13241:2003+A2:2016

Component (Flexi-Force types)	**Door weight**	**Test report SP No, date**
Spring break devices		
type 670, 675 and 675-125	225 kg/ SBD	P403429, 2005-08-26
type 670S	105 kg	P900807-03B, 2010-06-02
Cable break devices		
2” type: 444	400 kg	P602685B, 2006-06-21
2” type: 440-600, 440LHR, 440REGL	750 kg	P403429, 2005-08-26
2” type: 440, 440S	750 kg	P900807-03B, 2010-06-02
2” type: 440HD	960 kg	P403429, 2005-08-26
3” type: 440-3	750 kg	P403429, 2005-08-26

1.6 Durability of water tightness, thermal resistance and air permeability against degradation according to part 4.4.7 of EN 13241:2003+A2:2016

Requirement	**Result**	**Test Report, dated**
Durability of water tightness, thermal resistance and air permeability	**Pass**	TNO 2005-BCS-R0014, Jan 11, 2005 (TNO Built Environment and Geosciences, The Netherlands)

2. Resistance to wind load, Single panel test according to part 4.4.3 of EN 13241:2003+A2:2016

2.1 Tecsedo

Door panel type **Tecsedo 40 mm** (SP No. P403429, 2005-08-26)	**Width [mm]**	**Height [mm]**	**Wind load Class**	**[Pa]***	**Maximum pressure [Pa]**
40 mm	4040	610	5	1020	1403
4 windows	4000	610	2	-	819
40 mm	6000	610	2	-	623
6 windows	6000	610	0	-	404
reinforcement profile 65S	7500	610	2	-	810
reinforcement profile 68SC **	7500	610	2	-	760
reinforcement profile 110S	8500	610	3	-	1018
7 windows, reinforcement profile 65S	7500	610	1	-	560
7 windows, reinforcement profile 68SC	7500	610	1	-	510
8 windows, reinforcement profile 110S	8525	610	2	-	829

* Only stated for class 5 ** profile type 68SC, SP PX04884-03, rev 1 2010-11-01

2.2 Metecno Door Panel

Door panel type **Metecno Door Panel 40 mm**	**Width [mm]**	**Height [mm]**	**Wind load Class**	**[Pa]***	**Maximum pressure [Pa]**
Monowall (SP No. P403429, 2005-08-26)					
non-fingersafe	4000	610	5	1075	1477
non-fingersafe, 4 windows	4000	610	2	-	842
non-fingersafe	6000	610	2	-	630
non-fingersafe, 6 windows	6000	610	0	-	314
non-fingersafe, reinforcement profile 65S	7500	610	2	-	766
non-fingersafe, reinforcement profile 68SC	7500	610	2	-	710
non-fingersafe, reinforcement profile 110S	8500	610	3	-	976
non-fingersafe, 7 windows, reinforcement profile 65S	7500	610	1	-	536
non-fingersafe, 7 windows, reinforcement profile 68SC**	7500	610	1	-	480
non-fingersafe, 8 windows, reinforcement profile 110S	8525	610	2	-	793
Secuwall (SP No. P403429 J, 2005-10-11)					
fingersafe	4000	500	5	1100	1504
fingersafe, with 4 windows	4000	500	1	-	448
fingersafe	6000	500	2	-	709
fingersafe, with 6 windows	6000	500	0	-	191
fingersafe	7500	500	1	-	448
fingersafe, reinforcement profile 113 mm	7500	500	4	-	1399
fingersafe	8500	500	0		345
fingersafe, reinforcement profile 113 mm	8500	500	3	-	1116

* Only stated for class 5
** profile type 68SC, SP PX04884-03, rev 1 2010-11-01

3. Operating forces according to part 4.3.3 of EN 13241:2003+A2:2016

The operators were tested together with the test doors using Flexi-Force vertical lift track systems, different control units and safety edges. The configurations are shown in the following tables. The operators performed in accordance with the requirements according to test reports:

3.1 – 3.2 SP No. P403429, dated 2005-08-26 and for
3.1 MFZ-STA1, SP No. P805340-01-A, dated 2009-01-20
3.2 Nice, RISE No. 7P01864B, 2017-05-15 and 8P02055, 2018-03-19

3.1 MFZ operators

Door weight	**Machinery MFZ,** type	**Control unit// Sensor**	**Safety edge**	**Speed [mm/s]**
700 kg	MFZ STA1-11-24 KU, 24 rpm	MFZ CS 300 // MFZ Opto sensor	Flexi-Force 1039-55	~183
			Flexi-Force 1039-52	~219
			MFZ P2	~219
700 kg	MFZ STA1-11-24 KU, 24 rpm	MFZ CS 300 // Flexiforce Opto sensor	Flexi-Force 1039-52	~219
700 kg	MFZ STA1-11-24 KU, 24 rpm	MFZ AS 130 // Flexiforce Opto sensor	Flexi-Force 1039-52	~207
700 kg	MFZ STA1-11-24 KU, 24 rpm	MFZ AS 130 // MFZ Opto sensor	Flexi-Force 1039-52	~195
			MFZ P2	~219
700 kg	MFZ STA1-11-24 KU, 24 rpm	MFZ AS210B // MFZ Opto sensor	MFZ P2	~219
			Flexi-Force 1039-52	~207
700 kg	MFZ STA1-12-19 KU, 19 rpm	MFZ AS210B // MFZ Opto sensor	Flexi-Force 1039-52	~193
			Flexi-Force 1039-55	~154
			MFZ P2	~193
700 kg	MFZ STA1-12-19 KU, 19 rpm	MFZ AS130 // MFZ Opto sensor	Flexi-Force 1039-52	~193
			Flexi-Force 1039-55	~154
			MFZ P2	~193

3.2 Nice operators

Door weight	Machinery	Control unit // Sensor	Safety edge	Speed [mm/s]
400 kg	Nice SDL100C [1*] Nice SDL100Q	Nice D-PRO Action // OSE-SIGNAL-LP	Flexiforce 1039-55	~195
			Flexiforce 1039-52	~243
550 kg	Nice SDL140Q [2*] Nice SDL140C	Nice D-PRO Action // OSE-SIGNAL-LP	Flexiforce 1039-52	~267
			Flexiforce 1039-55	~219
350 kg	Nice SWL070C [3*]	Nice D-PRO Action 230// OSE-SIGNAL-LP	Flexiforce 1039-55	~193
			Flexiforce 1039-52	~233
350 kg	Nice 70XQ [4*]	Nice D-PRO Automation 230V// OSE-SIGNAL-LP	Flexiforce 1039-55	~193
			Flexiforce 1039-52	~233
400 kg	Nice 100XC [5*]	Nice D-PRO Automation 380V// OSE-SIGNAL-LP	Flexiforce 1039-52	~231
550 kg	Nice 140XC [6*]	Nice D-PRO Automation 380V// OSE-SIGNAL-LP	Flexiforce 1039-55	~183
			Flexiforce 1039-52	~213

[1*] the Nice SDL100C also sold as Nice SD-100-24-KE. According to the client following operators are of same construction: Nice SD-100-24-KE, Nice SD-100-24-KU, SD-100-24-KE2 und SD-100-24E.

[2*] the Nice SDL140Q also sold as SD-140-20E. According to the client following operators are of same construction: SD-140-20-KU, SD-140-20-KE, SD-140-20-KE2 and SD-140-20E for 1 inch shaft and SD-140-20-KU, SD-140-20-KE, SD-140-20-KE2 and SD-140-20E for 1,25 inch shaft.

[3*] the Nice SWL070C also sold as Nice SW-70-20-KE. According to the client following operators are of same construction: SW-70-20-KU, SW-70-20-KE and SW-70-20-E.

[4*] According to the client following operators are of same construction: Nice 70XQ and Nice SWL070C.

[5*] According to the client following operators are of same construction: Nice 100XC and Nice SDL100C.

[6*] According to the client following operators are of same construction: Nice 140XC and Nice SDL140C.

RISE Research Institutes of Sweden AB
Certification

Performed by

Signed by: Elin Granberg
Reason: I am the author of this document
Date & Time: 2019-10-29 15:37:30 +01:00

Elin Granberg

Examined by

Signed by: Martin Tillander
Reason: I have reviewed this document
Date & Time: 2019-10-29 15:54:20 +01:00

Martin Tillander