SP REPORT
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Summary of Initial Type Testing Reports for EC Declaration of Conformity for Garage doors

SP Technical Research Institute of Sweden has as Notified Body no. 0402, performed Initial Type-Testing of the products mentioned below, according to the requirements in the harmonized standard **EN 13241-1:2003**. This report may be used as support for an EC Declaration of Conformity in accordance with the Construction Products Directive CPD, 89/106/EEC.

Product name and description

Sectional overhead Garage Door	**REN70**
Day-light, tested	Width 2500 mm, height 2500 mm
Day-light, maximum	Width 5000 mm, height 3000 mm (within a maximum area of 11 m^2) and a maximum door weight of 165 kg
Weight of door	105 – 165 kg. See chapter 1.5 and 2.
Type of panels	Thyssenkrupp-Hoesch, Marcegaglia, Technopan/ Hardways, Sicom, Metecno, Hierros Costa, Kingspan, Epco
Hardware	REN70 - Vertical track 43000 /43010, Horizontal track 43001 / 43011, Curve kit 43012
Machinery / Operators	See chapter 3
Balancing system, torsion springs	REN70 rear/ balancing springs
Spring break device	DOCO type SBD RESI 25650 and 25651, also see 1.5
Bottom rubber seal	DOCO 80042

1 Test of fully assembled Door

1. 1 Wind Load

Door/panel type **REN70 2500 x 2500 mm** (width x height)	**Wind load class**	**Maximum pressure [Pa]**	**Ref test report/s**
Thyssenkrupp-Hoesch Sectiotec Plus, 39.5 mm	**5**	**1100**	1)
Marcegaglia, covered 40 mm	**5**	**1100**	2)
Sicom, covered 40 mm	**5**	**1100**	3)
Technopan/Hardways, covered 40 mm	**5**	**1100**	4)
Metecno, covered 40 mm	**5**	**1100**	5)
Hierros Costa, covered 40 mm	**5**	**1100**	6)
Kingspan, covered 40 mm	**5**	**1100**	7)
Epco, R-serie, covered 40 mm	**5**	**1100**	8)

Ref test reports SP: 1) PX00555A, 2010-03-09 2) PX00555B, 2010-03-09 3) PX00555C, 2010-03-09
4) PX00555D, 2010-03-09 5) PX00555E, 2010-03-09 6) PX00555F, 2010-03-09 7) PX00555G, 2010-03-09
8) PX00555H, 2010-03-09

1.2 Determination of air permeability

Door/panel type **REN70 2500 x 2500 mm** (width x height)	**Air permeability class**	**Ref test report/s**
Thyssenkrupp-Hoesch Sectiotec Plus, 39.5 mm	**3**	1)
Marcegaglia, covered 40 mm	**3**	2)
Sicom, covered 40 mm	**3**	3)
Technopan/Hardways, covered 40 mm	**3**	4)
Metecno, covered 40 mm	**1**	5)
Hierros Costa, covered 40 mm	**2**	6)
Kingspan, covered 40 mm	**3**	7)
Epco, R-serie, covered 40 mm	**2**	8)

Ref test reports SP: 1) PX00555A, 2010-03-09 2) PX00555B, 2010-03-09 3) PX00555C, 2010-03-09
4) PX00555D, 2010-03-09 5) PX00555E, 2010-03-09 6) PX00555F, 2010-03-09 7) PX00555G, 2010-03-09
8) PX00555H, 2010-03-09

1. 3 Resistance to water penetration

Door /panel type **REN70 2500 x 2500 mm** (width x height)	**Water pene-tration class**	**Maximum pressure [Pa]**	**Ref test report/s**
Thyssenkrupp-Hoesch Sectiotec Plus, 39.5 mm	**3**	**150**	1)
Marcegaglia, covered 40 mm	**3**	**150**	2)
Sicom, covered 40 mm	**3**	**130**	3)
Technopan/Hardways, covered 40 mm	**3**	**190**	4)
Metecno, covered 40 mm	**3**	**90**	5)
Hierros Costa, covered 40 mm	**3**	**70**	6)
Kingspan, covered 40 mm	**3**	**190**	7)
Epco, R-serie, covered 40 mm	**3**	**110**	8)

Ref test reports SP: 1) PX00555A, 2010-03-09 2) PX00555B, 2010-03-09 3) PX00555C, 2010-03-09
4) PX00555D, 2010-03-09 5) PX00555E, 2010-03-09 6) PX00555F, 2010-03-09 7) PX00555G, 2010-03-09
8) PX00555H, 2010-03-09

1.4 Thermal resistance

Door panel type REN70 2500 x 2500 mm (width x height)	Thermal transmittance U_{door} [W/(m²K)]					
	p	pxw	pd	pwd	g	gd
NPD (No Performance Determined)	-	-	-	-	-	-

p = door with covered panels only
pxw = covered panels with x windows
pd = covered panels with a pass door
pwd = covered panels with windows and pass door
g = fully glazed door (full vision)
gd = glazed door with pass door

1.5 Safe opening

Component: Spring break device	Max. weight per spring break device	Test report SP No.
DOCO type SBD RESI 25650, 25651	150 kg	PX00397, 2010-02-15

1.6 Dangerous substances

Requirement	Result	Test Report SP No.
Dangerous substances	Pass	P901154-02A, 2010-06-14

1.7 Durability of water tightness, thermal resistance and air permeability

Requirement	Result	Test Report
Durability of water tightness, thermal resistance and air permeability	NPD	---

* *The Durability test has not been carried out*

2. Operating forces

All operators performed in accordance with the requirements, and the test defines the maximum door weight for each operator. Bottom seal used is DOCO 80042. See the following table and also chapter 1.5 Safe opening where the maximum weight is given for each spring break device.

Machinery // Control unit	Max. door weight [kg]	Ref. test report
Nice SN 6041 [1]	165	PX00397A, 2010-03-09 rev
Nice SN 6021 [2]	105	PX00397B, 2010-03-09 rev
Sommer Duo Vision 800 [3]	165	PX00397C, 2010-02-11
Sommer Duo Vision 650 [4], Duo Rapido 650	105	PX00397D, 2010-02-11
Chamberlain LM 80xx [5]	105	PX00397E, 2010-02-11
Chamberlain LM 800Axx [6], LM3850xx Chamberlain HE60xx [7], 5580xx [8]	165	PX00397F, 2010-02-11
Marantec Comfort 252.2	165	PX00397G, 2010-02-11
Marantec Comfort 220.2, 250.2	105	PX00397H, 2010-02-12
Eking KSX 550	105	PX00397I, 2010-02-12
Beninca JIM 3 // CP.J3M) Beninca JIM 3 PRO // CP.J4) Beninca JIM 4 // CP.J3M)	165	PX00397J, 2010-02-12
Bernal S101 – xx Bernal S401 – xxx Bernal Gamma xxx	165	PX00397K1 , 2010-03-09
Docomatic xxx Docomatic xxxx DocoMat xxx	165	PX00397K2 , 2010-03-09

According to the client the following machineries are similar to the tested models shown above:
[1] Nice: SN 6041 /A and SPIN 40
[2] Nice: SPIN 20 KCE, SPIN 21 KCE, SPIN 22 KCE and SPIN 23 KCE
[3] Sommer: Sprint 800 SL, Sprint evolution 800, Marathon 800 SL, Marathon tiga 800SL, Marathon tiga 800 SLX, Aperto 868 LX
[4] Sommer: Duo Vision 500, Sprint 550 SL, Sprint evolution 550, Marathon 550 SL, Aperto 868 L, Aperto Baseline
[5] Chamberlain: ML700/750/850xx, GPD 70/80xx and LM60xx.
[6] Chamberlain: LM1000Axx
[7] Chamberlain: ML 500xx, JM 60xx, GPD 60xx
[8] Chamberlain: 3780xx

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