SCHÜCO

Overview

Schueco Aluminium **Sliding** Systems

February 2024

	Sliding Systems														
	ASS 39 PD.NI	AS PD 70.NI	ASE 60	ASE 80.HI	ASS 70.HI	ASS 50	ASS 50.NI	AS SC 30.NI	AS 39 NI	AS 39 SC.NI	AS 39 SC.HP	AS ICD 50.NI	AS FD 75	ASS 70 FD NI	ASS 70 FD
Energy															
Non-Insulated	■	■					■	■	■	■	■	■		■	
Thermally insulated			■			■							■		■
Highly thermally insulated				■	■										
Design															
Basic depth of vent frame, mm	39	70	60	80	70	50	50	30	39	39	39	50	75	70	70
Total depth of double track outer frame, mm	107	192	140	180	184	120	120	68.8	108.5	85	120	127	75	80	80
Total depth of triple tack outer frame, mm	159.5	x	220	280	250	185	-	106.8	147	131	177	192	-	-	-
90° corner	■											■		■	■
Properties															
Weight capacity, kg	300	500	350	350	400	400	150	120	160	120	300	500	150	100	100
Min. glass thickness, mm	6	14	24	36	24	8	8	4	21	4	4	8	8	6	6
Max. glass thickness, mm	32	40	40	60	52	32	32	22	26	28	26	36	50	45	45
Min. height, m ↕	2.1	2.3	1.4	1.4	0.9	0.9	0.9	x	0.7	0.6	x	0.9	x	0.6	0.6
Max. height, m ↕	3.5	4.5	3.5	3.5	3.0	3.0	3.0	2.4	2.7	3.0	3.5	4.5	3.0	3.0	3.0
Min. leaf width, m ↔	1.0	0.9	0.9	0.8	0.9	0.7	0.7	x	0.5	0.4	x	0.7	x	0.6	0.6
Max. leaf width, m ↔	3.0	3.0	3.5	3.5	3.0	3.0	3.0	1.2	1.7	2.0	2.5	3.0	1.5	1.2	1.2
Moment of inertian I_x, cm^4 from	58.97	409.98	16.78	18.77	20.48	13.04	87.08	7.62	8.12	12.88	462.83	48.25	56.7	x	49.58
Moment of inertian I_x, cm^4 upto	566.52	1093.9	257.07	259.1	208.18	144.01	87.08	185.24	41.59	249.8	1049.7	2155.1	65.5	x	49.58
Test & Standards															
Thermal insulation U_f, $W/(m^2K)$ from	x	x	1.80	1.40	1.30	2.00	x	x	x	x	x	x	2.20	x	x
Weighted sound insulation index R_w, dB to	x	36	41	45	44	40	x	20	x	33	x	36	x	x	x
Wind load, up to Class	B2/C2	CE3000	B5/C5	B5/C5	B5/C5	B5	x	A5	B1	B3/C3	5200Pa	CE3000	B3	x	B3/C3
Watertightness, up to Class	7A	9A	9A	9A	E 1050	9	7A	7A	9A	9A	1000Pa	E 900	9A	8A/9A	8A/9A
Air permeability, Class	3	4	4	4	4	4	4	4	3	4	A-4	4	4	3	3
Impact resistance, Class	4	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Long term functionality, Class	3	3	1	2	2	2	x	3	x	3	x	3	x	x	x
Burglar resistance, up to Class	x	x	RC2	RC2	RC2	RC2	RC2	x	RC2	x	x	RC2	RC2	RC2	RC2
Price Comparison															
Price per set based on 2500(w) x 2500(h) mm opening, in Euro	1029.3	2906.2	1871.8	2145.9	1)	1535.4	1294.3	1)	755.04	566.77	1)	1126.4	2113	1509.4	1921.3
Percent difference based on ASS 50.NI as benchmark	-20%	125%	45%	66%	1)	19%	0%	1)	-42%	-56%	1)	-13%	63%	17%	48%
System Type															
Panorama design system	■	■													
Sliding system			■	■	■	■	■	■	■	■	■	■			
Lift-and-slide system			■	■	■	■	■		■			■			
Folding system													■	■	■

x = no figures from catalogues nor test reports are available at the moment

1) = Price cannot be calculated at the moment

Watertightness:
Class 7A = 300Pa, Class 8A = 450, Class 9A = 600 (A = unprotected)
Airtightness:
Class 3 = 600Pa (Area-related permeability at 100Pa = $9m^3/h/m^2$), Class 4 = 600Pa (Area-related permeability at 100Pa = $3m^3/h/m^2$)
Windload:
B1/C1= 400Pa, B2/C2 = 800Pa, B3/C3 = 1200Pa, B4/C4 = 1600, A5/B5/C5 = 2000Pa (Deflection: A = l/150, B = l/200, B = l/300)

- Go to Germany/UK's DocuCenter for other systems that are not availble in SEA

- Go to India's DocuCenter for TropTec™

Notes:

(a) Price comparison considering ASS 50.NI as benchmark

(b) The base comparison data is based on Schueco material cost only generated from SchueCal using platinum cost data block (HW)

(c) Price based on sliding/folding system to be applied on 2500x2500mm (w x h) opening

(d) For folding system, consider 3 panels covering the 2500mm total width

(e) Basic depth of vent frame is the depth of a single profile.

(f) Total depth of the outer frame will depends on the number of tracks.

(g) Test for ASS 50.NI is based from PSB SG, Nam Lee Pressed Metal Pte Ltd, for Hampton Court @ Draycott Park

(h) The information describes the optimum values of the entire system.
The properties of a selected design option or unit combination have to be determined on an individual basis based on the comprehensive test documentation.

(i) Test and results for AS 39 SC.HP are based on JIS A 4706 Standard

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Overview

Schueco Aluminium **Window** Systems

	Window Systems				
	AW 40.NI	AWS 50 NI	AWS 50	AWS 65	AWS 75 SI+
Energy					
Non-Insulated	■	■			
Thermally insulated			■	■	
Highly thermally insulated					■
Design					
Basic depth of vent frame, mm	40	50	50	65	75
90° corner					
Properties					
Weight capacity, kg	80	160	180	250	250
Min. glass thickness, mm	4	6	6	4	18
Max. glass thickness, mm	26	32	32	45	61
Min. height, m ↕	0.4	0.4	0.4	0.4	0.5
Max. height, m ↕	2.4	2.5	2.5	2.5	2.5
Min. leaf width, m ↔	0.4	0.5	0.5	0.5	0.5
Max. leaf width, m ↔	1.5	1.5	1.5	1.6	1.7
Moment of inertian I_x , cm^4 from	*	*	*	*	*
Moment of inertian I_x , cm^4 upto	*	*	*	*	*
Test & Standards					
Thermal insulation U_f , $W/(m^2K)$ from	x	6.00	2.50	1.90	0.90
Weighted sound insulation index R_w, dB to	34	43	43	47	48
Wind load, up to Class	C5/B5	C5/B5	C5/B5	C5/B5	C5/B5
Watertightness, up to Class	9A	9A	9A	9A	9A
Air permeability, Class	4	4	4	4	4
Impact resistance, Class	x	x	x	x	x
Long term functionality, Class	x	x	x	x	x
Burglar resistance, up to Class	x	RC1	RC1	RC3	RC3
Price Comparison					
Price based on 1000(w) x 1300(h) mm TopHung windows, in Euro	187.5	325.86	438.45	410.54	475.73
Percent difference based on AWS 50 NI as benchmark	-42%	0%	35%	26%	46%
System Type					
Turn / Tilt Fitting	■	■	■	■	■
Toplight	■	■	■	■	■
Outward Opening	■	■	■	■	■
Inward Opening	-	■	■	■	■

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Overview

Schueco Aluminium **Door** Systems

	Door Systems			
	ADS 50 NI	ADS 65 NI	ADS 65	ADS 75 SI
Energy				
Non-Insulated	■	■		
Thermally insulated			■	
Highly thermally insulated				■
Design				
Basic depth of vent frame, mm	50	65	65	75
90° corner				
Properties				
Weight capacity, kg	150	150	150	200
Min. glass thickness, mm	4	4	4	10
Max. glass thickness, mm	40	45	45	57
Min. height, m ↕	1.8	1.8	1.8	1.8
Max. height, m ↕	3.0	3.0	2.5	3.0
Min. leaf width, m ↔	0.8	0.8	0.8	0.8
Max. leaf width, m ↔	1.2	1.4	1.2	1.4
Moment of inertian I_x , cm^4 from	*	*	*	*
Moment of inertian I_x , cm^4 upto	*	*	*	*
Test & Standards				
Thermal insulation U_f , $W/(m^2K)$ from	x	x	2.20	1.60
Weighted sound insulation index R_w, dB to	x	43	43	43
Wind load, up to Class	C3	C3	C3	C3
Watertightness, up to Class	x	5A	5A	5A
Air permeability, Class	2	2	2	2
Impact resistance, Class	x	x	x	x
Long term functionality, Class	x	x	x	x
Burglar resistance, up to Class	RC2	RC2	RC3	RC3
Price Comparison				
Price based on 1000(w) x 2500(h) mm Single Leaf Door, in Euro	1169	1374.3	1372.3	1497.9
Percent difference based on ADS 65 NI as benchmark	-15%	0%	-0.1%	9%
System Type				

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- Go to Germany/UK's DocuCenter for other systems that are not availble in SEA

- Go to India's DocuCenter for TropTec™

Notes:

(a) Price comparison considering AWS 50.NI as benchmark for Windows and ADS 65 NI for doors

(b) The base comparison data is based on Schueco material cost only generated from SchueCal using platinum cost data block (HW)

(c) Price based on window system to be applied on 1000(w) x 1300(h) mm TopHung windows; for door system to be applied on 1000(w) x 2500(h) mm doors

(d) The information describes the optimum values of the entire system.
The properties of a selected design option or unit combination have to be determined on an individual basis based on the comprehensive test documentation.

x = no figures from catalogues nor test reports are available at the moment

**** = for doors and windows not necessary, unless when interlock included. In this case, please contact the FE SEA team***

Watertightness:
Class 5A = 200Pa, Class 7A = 300Pa, Class 8A = 450, Class 9A = 600 (A = unprotected)
Airtightness:
Class 3 = 600Pa (Area-related permeability at 100Pa = $9m^3/h/m^2$), Class 4 = 600Pa (Area-related permeability at 100Pa = $3m^3/h/m^2$)
Windload:
B1/C1= 400Pa, B2/C2 = 800Pa, B3/C3 = 1200Pa, B4/C4 = 1600, A5/B5/C5 = 2000Pa (Deflection: A = l/150, B = l/200, B = l/300)

OVERVIEW AIR- and WATER-TIGHTNESS, WIND RESISTANCE and OPERATING FORCES as per EN

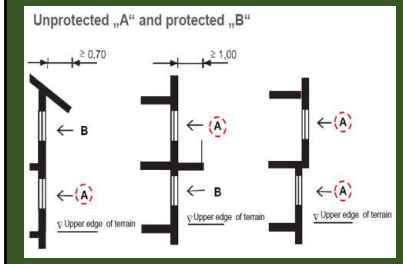
Air Permeability (EN 12207)

Class	Pressure	Area-related permeability at 100Pa in $m^3/h/m^2$	Joint-related permeability at 100Pa in $m^3/h/m^2$
1	150	50	12.5
2	300	27	6.75
3	600	9	3.3
4	600	3	0.75
AE	>600	1.5	0.5

Water Tightness (EN 12208)

Unprotected (Class Ax)		Protected (Class Bx)	
Class	**Pressure**	**Class**	**Pressure**
1A	0	**1B**	0
2A	50	**2B**	50
3A	100	**3B**	100
4A	150	**4B**	150
5A	200	**5B**	200
6A	250	**6B**	250
7A	300	**7B**	300
8A	450		
9A	600		
Exxxx	>600		

Unprotected „A“ and protected „B“



Wind Load resistance (EN 12211)

Class	Pressure P1	Pressure P2 (= 0.5*P1)	Pressure P2 (= 1.5*P1)
1	400	200	600
2	800	400	1200
3	1200	600	1800
4	1600	800	2400
5	2000	1000	3000
Exxxx	>2000		

Letter infront of the class is referring to the deflection
Class A is L/150
Class B is L/200
Class C is L/300

Operating Forces (EN 13115)

Class	Maximum window operating forces	Max.hardware operating forces by hand	Max.hardware operating forces by finger
0	>100N	> 100 N or > 10 Nm	> 50 N or > 5 Nm
1	≤ 100 N	≤ 100 N or ≤ 10 Nm	≤ 50 N or ≤ 5 Nm
2	≤ 30 N	≤ 30 N or ≤ 5 Nm	≤ 20 N or ≤ 2 Nm

100N = 10kg
10N = 1kg