



Schüco ThermoSlide SI 82

PVC-U systems







Windows and doors

Schüco product performance certificate

In accordance with DIN EN 14351-1:2016-12

No. KS1007768_EN-01
Valid until 01/02/2023

System	Schüco ThermoSlide SI 82
Special features	- / -
Product families	1. Lift-and-slide door type 01 2. Lift-and-slide door type 01 Top Alu 3. Lift-and-slide door type 02
Frame material	PVC-U

Features	Class/value
 Resistance to wind load	Up to C3 / B3
 Resistance to snow and permanent loads	Not relevant**
 Reaction to fire	Not relevant**
 Watertightness	Up to 9 A
 Dangerous substances	In accordance with EN14351-1 section 4.6
 Impact resistance	npd
 Load-bearing capacity of safety devices	npd
 Height and width	Not relevant**
 Ability to release	Not relevant**
 Sound reduction	Up to 45 dB
 Thermal transmittance	*
 Radiation properties	CE marking for glazing
 Air permeability	Class 4
 Operating forces	Class 1
 Mechanical strength	npd
 Ventilation	*
 Bullet resistance	npd
 Blast resistance	npd
 Mechanical durability test	npd
 Behaviour between different climates	npd
 Burglar resistance	RC2 / RC2N

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Basic principles

EN 14351-1 (2006-03)

Windows and external doors

The Schüco performance certificate shows the performance characteristics of the systems named with their product families as per the specifications of the product standard.

The national building regulations and contractual arrangements apply to the use of the performance characteristics.

Publication instructions

The Schüco International KG license conditions and conditions of use shall apply.

* Project-specific certification – if necessary

** Not mandatory for windows (exterior doors/roof windows only)

*** Only applies to windows with integrated ventilation devices

**** Certification in accordance with country of destination

Weißenfels, 28/1/2019

p.p.



M. Herbst

Spokesman for the Executive Management Board







p.p.



C. Fischer

Head of Technology

1. Performance matrix in accordance with product standard EN 14351-1

No.	Properties in accordance with EN 14351-1	Product family 1	Product family 2	Product family 3
				
		Lift-and-slide door Type 01	Lift-and-slide door Type 01 Top Alu	Lift-and-slide door Type 02
4.2	 Resistance to wind load	C2/B2	C3/B3	C3/B3
4.3	 Resistance to snow and permanent load	Not relevant	Not relevant	Not relevant
4.4	 Reaction to fire	Not relevant	Not relevant	Not relevant
4.5	 Watertightness	6A	9A	9A
4.6	 Dangerous substances	See EN 14351-1 section 4.6		
4.7	 Impact resistance	npd	npd	npd
4.8	 Load-bearing capacity of safety devices	npd	npd	npd
4.9	 Height and width (external doors only)	Not relevant	Not relevant	Not relevant
4.10	 Ability to release (external doors only)	Not relevant	Not relevant	Not relevant
4.11	 Sound reduction	Up to 45 (-2;-5) dB	npd	npd
4.12	 Thermal transmittance U_w (W/(m ² K))	U_w values must be calculated based on the standard dimensions 1.23 m x 1.48 m or 1.48 m x 2.18 m or for specific projects.		
4.13	 Radiation properties	Must be provided for each project by means of CE markings for the glazing.		
4.14	 Air permeability	Class 4	Class 4	Class 4
4.16	 Operating forces (with manually operated windows only)	Class 1	Class 1	Class 1
4.17	 Mechanical strength	npd	npd	npd
4.18	 Ventilation	Project-specific certification		
4.19	 Bullet resistance	npd	npd	npd
4.20	 Blast resistance	npd	npd	npd
4.21	 Resistance to repeated opening and closing	npd	npd	npd
4.22	 Behaviour between different climates	npd	npd	npd
4.23	 Burglar resistance	RC2 / RC2N	npd	npd

Note 1 npd: no performance determined

Note 2 The numerical data in brackets is for information purposes only.

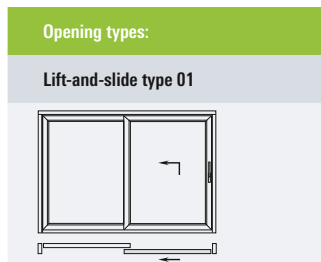
2. System features and performance characteristics of the product families

2.1 Product family 1












2.1.1 Description of system features for product family 1

Series	Schüco ThermoSlide SI 82
Variants	Lift-and-slide door type 01
Frame material	PVC-U
Profile depth	219 mm / 82 mm
Frame assembly	Lift-and-slide frame trim profile screwed with frame trim connector 28722800; vent frame mitre-cut and welded
Rebate construction	
Frame trim gasket, outside and inside	Sealing profile 28660300, EPDM, square-cut and joined Supplier: Schüco International KG
Centre joint	Sealing profile 28660100, EPDM / sealing profile 28660300, EPDM
Vent gasket, outside and inside	Sealing profile 28659900, EPDM, with TPE sealing wedge 28662800, square-cut and joined Supplier: Schüco International KG
Rebate drainage	Lift-and-slide door type 01 By means of threshold 2 slots, 5 mm x 30 mm, at the bottom of each vent
Pressure equalisation	2 drill holes, diameter 8 mm, at the top of each vent
Fittings	Tested with: Lift-and-slide door type 01 Schüco lift-and-slide Supplier: Schüco International KG
Glazing	Multi-pane insulating glass, glass thicknesses from 18 mm to 52 mm
Glazing gasket, outside	Sealing profile 25048400, EPDM, mitre-cut and joined Supplier: Schüco International KG
Glazing gasket, inside	Sealing profile 28633200, PVC-P, mitre-cut and joined Supplier: Schüco International KG
Pressure equalisation	Lift-and-slide door type 01 2 drill holes, diameter 8 mm, at the top of each vent

2.1.2 Overview of performance characteristics for product family 1



Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.2	Resistance to wind load	Lift-and-slide door with a sliding vent and fixed light Unit size: 2830 mm x 2300 mm Vent size: 1376.5 mm x 2178 mm	Test report 16-002052-PRO2 ift Rosenheim	C2/B2	Transfer to -100% of the frame width and frame height of the test specimen
4.3	Resistance to snow and permanent load			Not relevant	
4.4	Reaction to fire			Not relevant	
4.5	Watertightness	Lift-and-slide door with a sliding vent and fixed light Unit size: 2830 mm x 2300 mm Vent size: 1376.5 mm x 2178 mm	Test report 16-002052-PRO2 ift Rosenheim	6A	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.6	Dangerous substances			npd	
4.7	Impact resistance			npd	
4.8	Load-bearing capacity of safety devices			npd	
4.9	Height and width (external doors only)			Not relevant	
4.10	Ability to release (external doors only)			Not relevant	
4.11	Sound reduction	Two-part lift-and-slide door with a sliding vent Unit size: 4370 mm x 2500 mm Glazing: ▪ 6 / 16 / 6, argon gas filling Climaplus Ultra N	Test report 14-002141-PR01 ift Rosenheim	$R_w(C;C_{tr}) = 34$ dB (-1; -3)	Design in accordance with description in test reports for single-vent turn/tilt windows. Dimensions can be transferred to alternative window formats in accordance with Section B.4 from Appendix B, EN 14351-1 Glazing changed in accordance with Section B.2 from Appendix B, EN14351-1
		Glazing: ▪ 6 / 14 / 6 / 14 / 6, argon gas filling Climatop Ultra N	Test report 14-002141-PR01 ift Rosenheim	$R_w(C;C_{tr}) = 35$ dB (-1; -4)	
		Glazing: ▪ 6 / 12 / 4 / 12 / 10, argon gas filling	Test report 14-002141-PR01 ift Rosenheim	$R_w(C;C_{tr}) = 39$ dB (-2; -5)	
		Glazing: ▪ 8 LSG-SI / 12 / 4 / 12 / 6 Climatop Silence WS 42/42 Glazing: ▪ 8 LSG-SI / 12 / 4 / 12 / 8 Climatop Silence WS 44/45	Test report 14-002141-PR01 ift Rosenheim Test report 14-002141-PR01 ift Rosenheim	$R_w(C;C_{tr}) = 41$ dB (-2; -6) $R_w(C;C_{tr}) = 42$ dB (-2; -5)	
		Glazing: ▪ 8 LSG-SI / 12 / 4 / 12 / 8 LSG-SI Climatop Silence WS 50/50	Test report 14-002141-PR01 ift Rosenheim	$R_w(C;C_{tr}) = 45$ dB (-2; -5)	

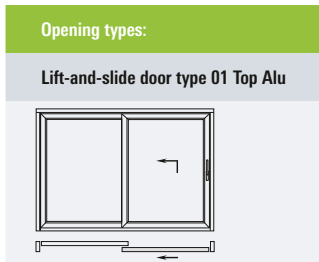
Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.12	 Thermal transmittance U_w ($W/(m^2K)$)	Cross sections with moving/fixed parts (vent/lift-and-slide frame trim profile combination and centre joint)	U_i value certificate in accordance with DIN EN 10077 Part 2	$U_i = 1.1 W/(m^2K)$	The U_w values must be calculated based on the standard dimensions 1.23 m x 1.48 m or 1.48 m x 2.18 m or for specific projects in accordance with the processes described in Point 2.12 of this document. Transfer regulations for standard dimensions: for dimensions 1.23 m x 1.48 m, U_w value for the window $\leq 2.3 m^2$ can be used; or for all windows if $U_g \leq 1.9 W/m^2K$ Standard dimensions: 1.48 m x 2.18 m U_w value for windows $> 2.3 m^2$
4.13	 Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	 Air permeability	Lift-and-slide door with a sliding vent and fixed light Unit size: 2830 mm x 2300 mm Vent size: 1376.5 mm x 2178 mm	Test report 16-002052-PRO2 ift Rosenheim	4	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.16	 Operating forces (with manually operated windows only)	Lift-and-slide door with a sliding vent and fixed light Unit size: 2830 mm x 2300 mm Vent size: 1376.5 mm x 2178 mm	Test report 12-001503-PRO1 ift Rosenheim	1	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and the same number of or fewer locking points
4.17	 Mechanical strength			npd	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and same design
4.18	 Ventilation		Project-specific certification	If required	
4.19	 Bullet resistance			npd	
4.20	 Blast resistance			npd	
4.21	 Resistance to repeated opening and closing			npd	
4.22	 Behaviour between different climates			npd	
4.23	 Burglar resistance	Lift-and-slide door with a sliding vent and fixed light Unit size: 4000 mm x 2370 mm Vent size: 1961.5 mm x 2248 mm	Test report 14-000248-PRO1 ift Rosenheim	RC2 / RC2N	See ENV 1627

2.2 Product family 2






2.2.1 Description of system features for product family 2

Series	Schüco ThermoSlide SI 82
Variants	Lift-and-slide door type 01 Top Alu
Frame material	PVC-U / aluminium cover cap, external
Profile depth	219 mm / 82 mm
Frame assembly	Lift-and-slide frame trim profile screwed with frame trim connector 28722800; vent frame mitre-cut and welded; clamped aluminium cover cap 14705000, 14701200, 14701600
Rebate construction	
Frame trim gasket, outside	Sealing profile 28660800, EPDM, square-cut and joined Supplier: Schüco International KG
Frame trim gasket, inside	Sealing profile 28660300, EPDM, square-cut and joined Supplier: Schüco International KG
Centre joint	Sealing profile 28660100, EPDM / sealing profile 28660300, EPDM
Vent gasket, outside and inside	Sealing profile 28659900, EPDM, with TPE sealing wedge 28662800, square-cut and joined Supplier: Schüco International KG
Rebate drainage	Lift-and-slide door type 01 Top Alu By means of threshold 2 slots, 5 mm x 30 mm, at the bottom of each vent
Pressure equalisation	2 drill holes, diameter 8 mm, at the top of each vent
Fittings	Tested with: Lift-and-slide door type 01 Top Alu Schüco lift-and-slide Supplier: Schüco International KG
Glazing	Multi-pane insulating glass, glass thicknesses from 18 mm to 52 mm
Glazing gasket, outside	Sealing profile 22490300, EPDM, mitre-cut and joined Supplier: Schüco International KG
Glazing gasket, inside	Sealing profile 28633200, PVC-P, mitre-cut and joined Supplier: Schüco International KG
Pressure equalisation	Lift-and-slide door type 01 Top Alu 2 drill holes, diameter 8 mm, at the top of each vent

2.2.2 Overview of performance characteristics for product family 2



Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.2	Resistance to wind load	Lift-and-slide door with a sliding vent and fixed light Unit size: 2790 mm x 2300 mm Vent size: 1356 mm x 2178 mm	Test report 13-003962-PR02 ift Rosenheim	C3/B3	Transfer to -100% of the frame width and frame height of the test specimen
4.3	Resistance to snow and permanent load			Not relevant	
4.4	Reaction to fire			Not relevant	
4.5	Watertightness	Lift-and-slide door with a sliding vent and fixed light Unit size: 2790 mm x 2300 mm Vent size: 1356 mm x 2178 mm	Test report 13-003962-PR02 ift Rosenheim	9A	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.6	Dangerous substances			npd	
4.7	Impact resistance			npd	
4.8	Load-bearing capacity of safety devices			npd	
4.9	Height and width (external doors only)			Not relevant	
4.10	Ability to release (external doors only)			Not relevant	
4.11	Sound reduction			npd	
4.12	Thermal transmittance U_w (W/(m²K))	See Point 4.12 in Table 2.1.2			
4.13	Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	Air permeability	Lift-and-slide door with a sliding vent and fixed light Unit size: 2790 mm x 2300 mm Vent size: 1356 mm x 2178 mm	Test report 13-003962-PR02 ift Rosenheim	4	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.16	Operating forces (with manually operated windows only)	Lift-and-slide door with a sliding vent and fixed light Unit size: 2790 mm x 2300 mm Vent size: 1356 mm x 2178 mm	Test report 13-003962-PR02 ift Rosenheim	1	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and the same number of or fewer locking points
4.17	Mechanical strength			npd	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and same design
4.18	Ventilation		Project-specific certification	If required	

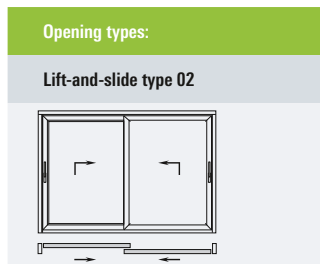
Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.19	 Bullet resistance			npd	
4.20	 Blast resistance			npd	
4.21	 Resistance to repeated opening and closing			npd	
4.22	 Behaviour between different climates			npd	
4.23	 Burglar resistance			npd	

2.3 Product family 3






2.3.1 Description of system features for product family 3

Series	Schüco ThermoSlide SI 82
Variants	Lift-and-slide door type 02
Frame material	PVC-U
Profile depth	219 mm / 82 mm
Frame assembly	Lift-and-slide frame trim profile screwed with frame trim connector 28722800; vent frame mitre-cut and welded
Rebate construction	
Frame trim gasket, outside and inside	Sealing profile 28660300, EPDM, square-cut and joined Supplier: Schüco International KG
Centre joint	Sealing profile 28660100, EPDM / sealing profile 28660300, EPDM
Vent gasket, outside and inside	Sealing profile 28659900, EPDM, with TPE sealing wedge 28662800, square-cut and joined Supplier: Schüco International KG
Rebate drainage	Lift-and-slide door type 02 By means of threshold 2 slots, 5 mm x 30 mm, at the bottom of each vent
Pressure equalisation	2 drill holes, diameter 8 mm, at the top of each vent
Fittings	Tested with: Lift-and-slide door type 02 Schüco lift-and-slide Supplier: Schüco International KG
Glazing	Multi-pane insulating glass, glass thicknesses from 18 mm to 52 mm
Glazing gasket, outside	Sealing profile 25048400, EPDM, mitre-cut and joined Supplier: Schüco International KG
Glazing gasket, inside	Sealing profile 28633200, PVC-P, mitre-cut and joined Supplier: Schüco International KG
Pressure equalisation	Lift-and-slide door type 02 2 drill holes, diameter 8 mm, at the top of each vent

2.3.2 Overview of performance characteristics for product family 3



Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.2	Resistance to wind load	Lift-and-slide door with a sliding vent and fixed light Unit size: 2900 mm x 2300 mm Vent size: 1411.5 mm x 2178 mm	Test report 13-003962-PR01 ift Rosenheim	C3/B3	Transfer to -100% of the frame width and frame height of the test specimen
4.3	Resistance to snow and permanent load			Not relevant	
4.4	Reaction to fire			Not relevant	
4.5	Watertightness	Lift-and-slide door with a sliding vent and fixed light Unit size: 2900 mm x 2300 mm Vent size: 1411.5 mm x 2178 mm	Test report 13-003962-PR01 ift Rosenheim	7A	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.6	Dangerous substances			npd	
4.7	Impact resistance			npd	
4.8	Load-bearing capacity of safety devices			npd	
4.9	Height and width (external doors only)			Not relevant	
4.10	Ability to release (external doors only)			Not relevant	
4.11	Sound reduction			npd	
4.12	Thermal transmittance U_w (W/(m ² K))	See Point 4.12 in Table 2.1.2			
4.13	Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	Air permeability	Lift-and-slide door with a sliding vent and fixed light Unit size: 2900 mm x 2300 mm Vent size: 1411.5 mm x 2178 mm	Test report 13-003962-PR01 ift Rosenheim	4	Transfer to -100% to +50% of the total area of the test specimen, in accordance with the maximum distances between locking points with the same or a similar format (ratio of height to width)
4.16	Operating forces (with manually operated windows only)	Lift-and-slide door with a sliding vent and fixed light Unit size: 2900 mm x 2300 mm Vent size: 1411.5 mm x 2178 mm	Test report 13-003962-PR01 ift Rosenheim	1	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and the same number of or fewer locking points
4.17	Mechanical strength			npd	Transfer to -100% of the total area of the test specimen with the same or a similar format (ratio of height to width) when using the same type of fittings and same design
4.18	Ventilation		Project-specific certification	If required	

















Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.19	 Bullet resistance			npd	
4.20	 Blast resistance			npd	
4.21	 Resistance to repeated opening and closing			npd	
4.22	 Behaviour between different climates			npd	
4.23	 Burglar resistance			npd	

3. Details on listed test documentation

The original test reports serve as verification. You can obtain them via the internet at: www.schueco.de

Test report No. Test institute	Date	Valid to	Type of test	Underlying standards
Test report 16-002052-PRO2 ift Rosenheim	28.11.2012	Until updated	Resistance to wind load, watertightness, air permeability, operating pressure	EN 14351-1:2006+A1:2010
Test report 14-002141-PR01 ift Rosenheim	23.02.2015	Until updated	Airborne sound reduction of building components	EN ISO 10140-1:2010 + 1:2012 + A2 2014 EN ISO 10140-2:2010 EN ISO 717-1:2013
Test report 13-003962-PR01 ift Rosenheim	25.02.2014	Until updated	Resistance to wind load, watertightness, air permeability, operating pressure	EN 14351-1:2006+A1:2010
Test report 13-003962-PR02 ift Rosenheim	08.05.2014	Until updated	Resistance to wind load, watertightness, air permeability, operating pressure	EN 14351-1:2006+A1:2010
Test report 14-000248-PR01 ift Rosenheim	22.04.2014	Until updated	Burglar resistance	EN 1627-1630

Appendix 1 Test, calculation and classification standards in accordance with EN 14351-1

No.	Properties in accordance with EN 14351-1	Test or calculation standard	Classification standard
4.2	 Resistance to wind load	EN 12211	EN 12210
4.3	 Resistance to snow and permanent load	National regulations	
4.4	 Reaction to fire	EN 13501-1	EN 13501-1
4.5	 Watertightness	EN 1027	EN 12208
4.6	 Dangerous substances	National regulations	
4.7	 Impact resistance	EN 13049	
4.8	 Load-bearing capacity of safety devices	prEN 14609 EN 948	
4.9	 Height and width (external doors only)	Measured values	
4.10	 Ability to release (external doors only)	EN 179, EN 1125, EN 1935, prEN 13633, prEN 13637	
4.11	 Sound reduction	EN ISO 140-3, EN ISO 717-1	Measured values
4.12	 Thermal transmittance U_w (W/(m ² K))	EN ISO 10077-1, prEN ISO 10077-2, EN ISO 12567-1, prEN ISO 12567-2	Measured values
4.13	 Radiation properties	EN 410, EN 13363-1, EN 13363-2	Measured values
4.14	 Air permeability	EN 1026	EN 12207
4.16	 Operating forces (with manually operated windows only)	EN 12046-1	EN 13115
4.17	 Mechanical strength	EN 14608, EN 14609, 12046-1	EN 13115
4.18	 Ventilation	EN 13141-1:2004	Measured values
4.19	 Bullet resistance	EN 1523	EN 1522
4.20	 Blast resistance	EN 13124	EN 13123
4.21	 Resistance to repeated opening and closing	EN 1191	EN 12400
4.22	 Behaviour between different climates	ENV 13420 EN 1121	EN 12219 Pending for windows
4.23	 Burglar resistance	ENV 1628, ENV 1629, ENV 1630	ENV 1627