SCHÜCO

Schüco LivIng Variant

PVC-U systems
Windows and doors

Schüco product performance certificate

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

No. KS1016339_EN-01
Valid until 01/02/2023

System	Schüco LivIng Variant
Special features	- / -
Product families	1. Turn/tilt windows and window doors 2. Double-vent windows and window doors 3. Turn/tilt windows and window doors with combination threshold 4. Double-vent windows and window doors with combination threshold 5. Parallel-opening sliding doors 6. Double-vent window and window doors with additive adhesive technology
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	Class 3
Load-bearing capacity of safety devices	npd
Height and width	Not relevant**
Ability to release	Not relevant**
Sound reduction	$R_w(C;C_{tr})$ to 47 (-1;-3) dB
Thermal transmittance	*
Radiation properties	CE marking for glazing
Air permeability	Class 4
Operating forces	Class 1
Mechanical strength	Class 4
Ventilation	*
Bullet resistance	npd
Blast resistance	npd
Mechanical durability test	Class 2
Behaviour between different climates	3A / 3D
Burglar resistance	npd

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No. KS1016339_EN-01
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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

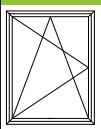
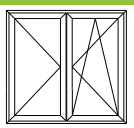
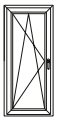
Weißenfels, 28/1/2019
p.p.

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
		 Turn/tilt windows and turn/tilt window doors	 Double-vent windows and double-vent window doors	 Turn/tilt windows and window doors with combination threshold
4.2	Resistance to wind load	C3/B3	C2/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	9A	9A	9A
4.6	Dangerous substances	See EN 14351-1 section 4.6		
4.7	Impact resistance	Class 3	* This property has been tested on the test specimen of product family 1 by way of example.	
4.8	Load-bearing capacity of safety devices	Threshold value achieved **	** This property has been tested on the test specimen of product family 2 by way of example.	
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 47 (-1;-3) dB	npd	npd
4.12	Thermal transmittance U_w (W/(m²K))	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	This property has been tested on the test specimen of product family 1/2 by way of example.
4.17	Mechanical strength	Class 4	Class 4	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	Class 2	npd	This property has been tested on the test specimen of product family 1 by way of example.
4.22	Behaviour between different climates	3A / 3D**	3A / 3D	** This property has been tested on the test specimen of product family 2 by way of example.
4.23	Burglar resistance	npd	npd	npd

Note 1 npd: no performance determined

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

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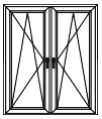
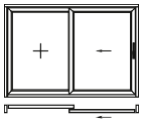
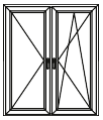
No.	Properties in accordance with EN 14351-1	Product family 4	Product family 5	Product family 6
		 Double-vent windows and window doors with combination threshold	 Parallel-opening sliding doors	 Double-vent window and window doors with additive adhesive technology
4.2	 Resistance to wind load	C2/B3	C3/B3	C2/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	Up to 9 A	9A	9A
4.6	 Dangerous substances	See EN 14351-1 section 4.6		
4.7	 Impact resistance	* This property has been tested on the test specimen of product family 1 by way of example.		
4.8	 Load-bearing capacity of safety devices	** This property has been tested on the test specimen of product family 2 by way of example.		
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	npd	npd	npd
4.12	 Thermal transmittance U_w (W/(m²K))	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)	This property has been tested on the test specimen of product family 1/2 by way of example.	Class 1	Class 1
4.17	Mechanical strength	npd	Class 4	Class 4
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	Class 2
4.22	 Behaviour between different climates	** This property has been tested on the test specimen of product family 2 by way of example.		3A / 3D
4.23	Burglar resistance	npd	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 Liv**Ing **Variant**
Variants	**Side-hung, turn/tilt, fixed light**
Frame material	PVC-U
Profile depth	82 mm
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, centre	Sealing profile, TPE, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	Single-vent turn/tilt window 4 slots, 5 mm x 35 mm; 3 slots, 5 mm x 35 mm, to the outside Single-vent turn/tilt window door 3 slots, 5 mm x 35 mm; 2 slots, 5 mm x 35 mm, to the outside
Pressure equalisation	External rebate gasket with 2 x 20 mm notch at top
Fittings	Single-vent turn/tilt window Turn/tilt fitting, Schüco VarioTec Supplier: Schüco Polymer Technologies KG Single-vent turn/tilt window door Turn/tilt fitting, Schüco VarioTec Supplier: Schüco Polymer Technologies KG
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	Single-vent turn/tilt window 4 slots, 5 mm x 35 mm, at the bottom and top in each case Double-vent side-hung / turn/tilt window door 2 slots, 5 mm x 35 mm, at the bottom and top in each case

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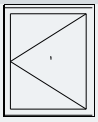
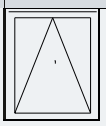
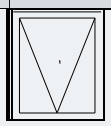
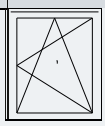
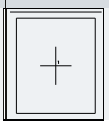
2.1.2 Overview of performance characteristics for product family 1

Opening types				
Side-hung window	Bottom-hung window	Top-hung window	Turn/tilt window	Fixed glazing
				

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	Single-vent turn/tilt window with cruciform sash bar and fixed light as spandrel Vent size: 1500 mm x 1700 mm	Test report 14-003469-PR02 ift Rosenheim	C3/B3	Transfer to -100% of the frame width and frame height of the test specimen
		Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR03 ift Rosenheim	C2/B3	
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	C3/B3	
4.3	Resistance to snow and permanent load			Not relevant	
4.4	Reaction to fire			Not relevant	
4.5	Watertightness	Single-vent turn/tilt window with cruciform sash bar and fixed light as spandrel Vent size: 1500 mm x 1700 mm	Test report 14-003469-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)
		Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR03 ift Rosenheim		
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
4.6	Dangerous substances			npd	
4.7	Impact resistance	Single-vent turn/tilt window Vent size: 1074 mm x 1074 mm	Test report 14-003469-PR08 ift Rosenheim	3	< total area of the test specimen and in accordance with the distances between locking points
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	5	
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	

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.11	 **Sound reduction**	Single-vent turn/tilt window (AS) Unit size: 1230 mm x 1480 mm Profiles: • Outer frame 19421... • Vent frame 19431... Glazing: • 10 / 12 / 4 / 12 / 6, argon gas filling • SGG Climatop Acoustic (44 mm) • R_w insulating glass 40 dB	Test report 15-003642-PR01 / PB04 ift Rosenheim	$R_w(C;C_{tr})$ = 41 (-1;-3) dB	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: • 8 / 12 / 4 / 12 8 LSG, argon gas filling • SGG Climatop Silence (44 mm) • R_w insulating glass 45 dB	Test report 15-003642-PR01 / PB05 ift Rosenheim	$R_w(C;C_{tr})$ = 45 (-1; -4) dB	
		Glazing: • 12 LSG/ 12 / 6 /12 / 8 LSG, argon gas filling • SGG Climatop Silence (50 mm) • R_w insulating glass 50 dB	Test report 15-003642-PR01 / PB03 ift Rosenheim	$R_w(C;C_{tr})$ = 47 (-1; -3) dB	
		Single-vent turn/tilt window (MD) Unit size: 1230 mm x 1480 mm Profiles: • Outer frame 19411... • Vent frame 19431... Glazing: • 10 / 12 / 4 / 12 / 6, argon gas filling • SGG Climatop Acoustic (44 mm) • R_w insulating glass 40 dB	Test report 15-003642-PR01 / PB02 ift Rosenheim	$R_w(C;C_{tr})$ = 42 (-2; -4) dB	
		Glazing: • 12 LSG/ 12 / 6 /12 / 8 LSG, argon gas filling • SGG Climatop Silence (50 mm) • R_w insulating glass 50 dB	Test report 15-003642-PR01 / PB01 ift Rosenheim	$R_w(C;C_{tr})$ = 47 (-1; -3) dB	
4.12	 **Thermal transmittance U_w ($W/(m^2K)$)**	System U_f value (AS) Cross sections as per test certificate Glazing thickness 36 mm	Test report 15-002325-PR24 ift Rosenheim	U_f= 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, Uw value for the window ≤ 2.3 m^2 can be used; or for all windows if Ug ≤ 1.9 W/m^2K Standard dimensions: 1.48 m x 2.18 m U_w value for windows > 2.3 m^2
		System U_f value (AS) Cross sections as per test certificate Glazing thickness 44 mm	Test report 15-002325-PR12 ift Rosenheim	U_f= 1.1 $W/(m^2K)$	
		System U_f value (MD) Cross sections as per test certificate Glazing thickness 36 mm	Test report 15-002325-PR23 ift Rosenheim	U_f= 1.0-1.1 $W/(m^2K)$	
		System U_f value (MD) Cross sections as per test certificate Glazing thickness 44 mm	Test report 15-002325-PR03 ift Rosenheim	U_f= 1.0 $W/(m^2K)$	
	 **Radiation properties**	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	 **Air permeability**	Single-vent turn/tilt window with cruciform sash bar and fixed light as spandrel Vent size: 1500 mm x 1700 mm	Test report 14-003469-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)
		Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR03 ift Rosenheim		
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		

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Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.16	 **Operating forces (with manually operated windows only)**	Single-vent turn/tilt window with cruciform sash bar and fixed light as spandrel Vent size: 1500 mm x 1700 mm	Test report 14-003469-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
		Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR03 ift Rosenheim		
		Single-vent turn/tilt window with cruciform sash bar Vent size: 1500 mm x 1700 mm	Test report 14-003469-PR24 ift Rosenheim		
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
4.17	 **Mechanical strength**	Single-vent turn/tilt window with cruciform sash bar and fixed light as spandrel Vent size: 1500 mm x 1700 mm	Test report 14-003469-PR02 ift Rosenheim	4	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
		Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR03 ift Rosenheim		
		Single-vent turn/tilt window, bonding of the glazing rebate base Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
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**	Single-vent turn/tilt window door Vent size: 1000 mm x 2600 mm	Test report 14-003469-PR09 ift Rosenheim	2	Transfer to -100% of the total area of the test specimen in accordance with the maximum tested vent weight, with similar W/H side ratios and when using the same type of fittings and same design
		Single-vent turn/tilt window (adhesive technology) Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
		Single-vent turn/tilt window (glass-dividing sash bar) Vent size: 1500 mm x 1700 mm	Test report 14-003469-PR24 ift Rosenheim		
4.22	 **Behaviour between different climates**			npd	
4.23	 **Burglar resistance**			npd	

2.2 Product family 2

2.2.1 Description of system features for product family 2

Series	**Schüco Liv**Ing Variant**
Variants	**Double-vent windows and window doors**
Frame material	PVC-U
Profile depth	82 mm
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, centre	Sealing profile, TPE, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	Double-vent side-hung / turn/tilt window door 6 slots, 5 mm x 35 mm; 4 slots, 5 mm x 35 mm, to the outside
Pressure equalisation	External rebate gasket recessed at the top by 2 x 35 mm
Fittings	Tested with: Double-vent side-hung / turn/tilt window door Side-hung / turn/tilt fitting, Schüco VarioTec Supplier: Schüco Polymer Technologies KG
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	Double-vent side-hung / turn/tilt window door 2 slots, 5 mm x 35 mm, at the bottom and top in each case

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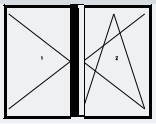
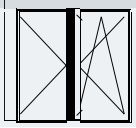
2.2.2 Overview of performance characteristics for product family 2

Opening types	
Double-vent window	Double-vent window door
	

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	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1400 mm x 1900 mm • Secondary vent: 1400 mm x 1900 mm	Test report 14-003469-PR04 ift Rosenheim	C3/B3	Transfer to -100% of the frame width and frame height of the test specimen
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	C2/B3	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim	C2/B3	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	C2/B3	
4.3	 Resistance to snow and permanent load			Not relevant	
4.4	 Reaction to fire			npd	
4.5	 Watertightness	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1400 mm x 1900 mm • Secondary vent: 1400 mm x 1900 mm	Test report 14-003469-PR04 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)
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	8A	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim	9A	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	9A	
4.6	 Dangerous substances			npd	

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.7	 Impact resistance	This property has been tested on the test specimen of product family 1 by way of example.	Test report 14-003469-PR08 ift Rosenheim	3	< total area of the test specimen and in accordance with the distances between locking points
			Test report 14-003469-PR17 ift Rosenheim	5	
4.8	 Load-bearing capacity of safety devices			npd	
4.9	 Height and width			Not relevant	
4.10	 Ability to release			Not relevant	
4.11	 Sound reduction	Type in accordance with Appendix B.2, EN 14351-1:2006	Project-specific certification	If required	
4.12	 Thermal transmittance U_w ($W/(m^2K)$)	See Point 4.12 in Table 2.1.1			
4.13	 Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	 Air permeability	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1400 mm x 1900 mm • Secondary vent: 1400 mm x 1900 mm	Test report 14-003469-PR04 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)
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	4	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim	4	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	4	
4.16	 Operating forces (with manually operated windows only)	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1400 mm x 1900 mm • Secondary vent: 1400 mm x 1900 mm	Test report 14-003469-PR04 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
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	1	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim	1	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	1	

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.17	 Mechanical strength	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1400 mm x 1900 mm • Secondary vent: 1400 mm x 1900 mm	Test report 14-003469-PR04 ift Rosenheim	4	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
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	4	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim	4	
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	4	
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	Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	2	Transfer to -100% of the total area of the test specimen in accordance with the maximum tested vent weight, with similar W/H side ratios and when using the same type of fittings and same design
4.22	 Behaviour between different climates	Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR06 ift Rosenheim	3A / 3D	All sizes
		Double-vent side-hung / turn/tilt window door with opening centre section Vent size: • Access vent: 800 mm x 2500 mm • Secondary vent: 800 mm x 2500 mm	Test report 14-003469-PR07 ift Rosenheim		
4.23	 Burglar resistance			npd	

2.3 Product family 3

2.3.1 Description of system features for product family 3

Series	**Schüco Liv**Ing **Variant**
Variants	**Side-hung, turn/tilt, with combination threshold**
Frame material	PVC-U
Profile depth	82 mm
Outer frame	19411… / 19421… outer frame 82/70 7K
Additional parts	25255500 combination threshold with cover profile 17472… Threshold connector 25264800, screw-fixed and sealed with sprayable sealing compound
Vent frame	19432… vent frame 82/110 7K
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, centre (for MD only)	Sealing profile, TPE, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	3 slots, 5 mm x 35 mm
Pressure equalisation	By means of threshold design
Fittings	Turn/tilt fitting, Schüco VarioTec Basic Supplier: Schüco Polymer Technologies KG
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	3 slots, 5 mm x 35 mm, at the bottom and top in each case

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

2.3.2 Overview of performance characteristics for product family 3

Opening types
Side-hung and turn/tilt window doors (single-vent, double-vent or multi-vent with mullion) with combination threshold


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	Single-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-000156-PR02 / PR03 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	Single-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-000156-PR02 / PR03 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	* This property has been tested on the test specimen of product family 1 by way of example.			
4.8	Load-bearing capacity of safety devices	** This property has been tested on the test specimen of product family 2 by way of example.			
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 ($W/(m^2K)$)	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	Single-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-000156-PR02 / PR03 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)	This property has been tested on the test specimen of product family 1/2 by way of example.			
4.17	Mechanical strength			npd	

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
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**	This property has been tested on the test specimen of product family 1 by way of example.			
4.22	 **Behaviour between different climates**	** This property has been tested on the test specimen of product family 2 by way of example.			
4.23	 **Burglar resistance**			npd	

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

2.4 Product family 4

2.4.1 Description of system features for product family 4

Series	**Schüco Liv**Ing **Variant**
Variants	**Double-vent windows and window doors with combination threshold**
Frame material	PVC-U
Profile depth	82 mm
Outer frame	19411… / 19421… outer frame 82/70 7K
Additional parts	25255500 combination threshold with cover profile 17472… Threshold connector 25264800, screw-fixed and sealed with sprayable sealing compound
Vent frame	19432… vent frame 82/110 7K
Meeting stile	19472… double-vent profile 82/74 5K
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, centre (for MD only)	Sealing profile, TPE, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	By means of combination threshold
Pressure equalisation	External gasket with 2 x 50 mm notch at the top
Fittings	Turn/tilt fitting, Schüco VarioTec Basic Supplier: Schüco Polymer Technologies KG
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	2 slots, 5 mm x 35 mm, at the bottom and top in each case

2.4.2 Overview of performance characteristics for product family 4

Opening types
Double-vent windows and window doors with combination threshold

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	Double-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-003200-PR01 / PR02 ift Rosenheim	C2/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	Double-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-003200-PR01 ift Rosenheim	8A	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)
			Test report 16-003200-PR02 ift Rosenheim	9A	
4.6	Dangerous substances			npd	
4.7	Impact resistance	* This property has been tested on the test specimen of product family 1 by way of example.			
4.8	Load-bearing capacity of safety devices	** This property has been tested on the test specimen of product family 2 by way of example.			
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 ($W/(m^2K)$)	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	Double-vent turn/tilt window door with combination threshold Vent size: 1000 mm x 2400 mm	Test report 16-003200-PR01 / 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)	This property has been tested on the test specimen of product family 1/2 by way of example.			
4.17	Mechanical strength			npd	
4.18	Ventilation		Project-specific certification	If required	

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

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	This property has been tested on the test specimen of product family 1 by way of example.			
4.22	 Behaviour between different climates	** This property has been tested on the test specimen of product family 2 by way of example.			
4.23	 Burglar resistance			npd	

2.5 Product family 5

2.5.1 Description of system features for product family 5

Series	**Schüco Liv**Ing **Variant**
Variants	**Parallel-opening sliding door**
Frame material	PVC-U
Profile depth	82 mm
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	Rebate space 12 mm
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, centre	Sealing profile, TPE, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	Parallel-opening sliding door 4 slots, 5 mm x 35 mm; 4 slots, 5 mm x 35 mm, to the outside
Pressure equalisation	External rebate gasket recessed at the top by 2 x 80 mm
Fittings	Tested with: Schüco VarioTec PAS Supplier: Schüco Polymer Technologies KG Max. gap between locking points 830 mm
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	Parallel-opening sliding door Vent: 3 slots, 5 mm x 35 mm, at the top and bottom of each Fixed light: 2 drill holes at the top towards the outside, diameter 8 mm; 4 slots, 5 mm x 35 mm, at the bottom towards the outside

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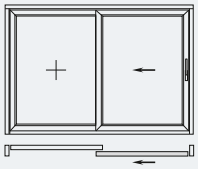
Selauer Straße 155
06667 Weißenfels, Germany

2.5.2 Overview of performance characteristics for product family 5

Opening types:
Parallel-opening sliding door



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	Parallel-opening sliding door Vent size: • Vent: 1800 mm x 2200 mm	Test report 14-003469-PR05 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			npd	
4.5	Watertightness	Parallel-opening sliding door Vent size: • Vent: 1800 mm x 2200 mm	Test report 14-003469-PR05 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	This property has been tested on the test specimen of product family 1 by way of example.	Test report 14-003469-PR08 ift Rosenheim	3	< total area of the test specimen and in accordance with the distances between locking points
			Test report 14-003469-PR17 ift Rosenheim	5	
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	Type in accordance with Appendix B.2, EN 14351-1:2006	Project-specific certification	If required	
4.12	Thermal transmittance U_w ($W/(m^2K)$)	See Point 4.12 in Table 2.1.1			
4.13	Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	Air permeability	Parallel-opening sliding door Vent size: • Vent: 1800 mm x 2200 mm	Test report 14-003469-PR05 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)	Parallel-opening sliding door Vent size: • Vent: 1800 mm x 2200 mm	Test report 14-003469-PR05 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	Parallel-opening sliding door Vent size: • Vent: 1800 mm x 2200 mm	Test report 14-003469-PR05 ift Rosenheim	4	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

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
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			npd	

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

2.6 Product family 6

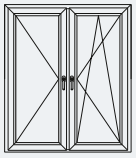
2.6.1 Description of system features for product family 6

Series	**Schüco Liv**Ing **Variant**
Variants	**Double-vent window and window doors with additive adhesive technology**
Frame material	PVC-U
Profile depth	82 mm
Frame assembly	Outer frame / vent frame mitre-cut and welded
Rebate construction	
Rebate gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate gasket, inside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Rebate drainage	Double-vent side-hung / turn/tilt window door 4 slots, 5 mm x 35 mm; 4 slots, 5 mm x 35 mm, to the outside
Pressure equalisation	External rebate gasket recessed at the top by 2 x 50 mm
Fittings	Tested with: Double-vent side-hung / turn/tilt window door Side-hung / turn/tilt fitting, Schüco VarioTec Basic Supplier: Schüco Polymer Technologies KG
Glazing	Multi-pane insulating glass, glass thicknesses from 24 mm to 52 mm, bonded in glazing rebate base (pos. 3 & 4)
Glazing gasket, outside	Sealing profile, EPDM, mitre-cut and welded Supplier: Schüco Polymer Technologies KG
Glazing gasket, inside	Sealing profile, PVC-P, mitre-cut and joined Supplier: Schüco Polymer Technologies KG
Pressure equalisation	Double-vent side-hung / turn/tilt window door 2 slots, 5 mm x 35 mm, at the bottom and top in each case

2.6.2 Overview of performance characteristics for product family 6

Opening types:

Double-vent window and window doors with additive adhesive technology



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	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	C2/B3	Transfer to -100% of the frame width and frame height of the test specimen
		Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	C3/B3	
4.3	Resistance to snow and permanent load			Not relevant	
4.4	Reaction to fire			npd	
4.5	Watertightness	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 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)
		Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
4.6	Dangerous substances			npd	
4.7	Impact resistance	Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	5	< total area of the test specimen and in accordance with the distances between locking points
4.8	Load-bearing capacity of safety devices			npd	
4.9	Height and width			Not relevant	
4.10	Ability to release			Not relevant	
4.11	Sound reduction	Type in accordance with Appendix B.2, EN 14351-1:2006	Project-specific certification	If required	
4.12	Thermal transmittance U_w ($W/(m^2K)$)	See Point 4.12 in Table 2.1.1			
4.13	Radiation properties	All test specimens	See CE marking for glazing	Project-specific certification	
4.14	Air permeability	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 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)
		Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		

Schüco Polymer Technologies KG
Selauer Straße 155
06667 Weißenfels, Germany

Extract from product standard EN 14351-1		Type, design	Proof (See 3. for details)	Value/class	Area of application
4.16	 **Operating forces (with manually operated windows only)**	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 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
		Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim		
4.17	 **Mechanical strength**	Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	4	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**	Single-vent turn/tilt window door with centre gasket Vent size: 1500 mm x 1900 mm	Test report 14-003469-PR17 ift Rosenheim	2	Transfer to -100% of the total area of the test specimen in accordance with the maximum tested vent weight, with similar W/H side ratios and when using the same type of fittings and same design
4.22	 **Behaviour between different climates**	Double-vent side-hung / turn/tilt window with opening centre section Vent size: • Access vent: 1000 mm x 2600 mm • Secondary vent: 1000 mm x 2600 mm	Test report 14-003469-PR16 ift Rosenheim	3A / 3D	All sizes
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
14-003469-PR02 ift Rosenheim	02.10.2015	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading	EN 14351-1:2006-+A1:2010
14-003469-PR03 ift Rosenheim	16.11.2015	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading	EN 14351-1:2006-+A1:2010
14-003469-PR16 ift Rosenheim	18.02.2016	Until updated	Air permeability, watertightness, resistance to wind load, operating forces, impact on climate, reveal and rebate obstruction test	ift guideline VE-08/2:2011-09
14-003469-PR17 ift Rosenheim	18.02.2016	Until updated	Air permeability, watertightness, resistance to wind load, durability, impact resistance, operating forces, mechanical loading	ift guideline VE-08/2:2011-09
15-000619-PR04 ift Rosenheim	17.12.2015	Until updated	Calculation of length-related thermal transmittance	EN ISO 10077-2:2012-02 SG 06 obligatory NB-CPD/SG06/11/083 2011-09
15-002325-PR24 ift Rosenheim	11.03.2016	Until updated	Thermal transmittance	EN 14351-1:2006-+A1:2010 EN 12412-2:2003-07
15-002325-PR12 ift Rosenheim	11.03.2016	Until updated	Thermal transmittance	EN 14351-1:2006-+A1:2010 EN 12412-2:2003-07
15-002325-PR23 ift Rosenheim	11.03.2016	Until updated	Thermal transmittance	EN 14351-1:2006-+A1:2010 EN 12412-2:2003-07
15-002325-PR03 ift Rosenheim	11.03.2016	Until updated	Thermal transmittance	EN 14351-1:2006-+A1:2010 EN 12412-2:2003-07
15-003642-PR01 / PB04 ift Rosenheim	08.03.2016	Until updated	Airborne sound insulation	EN ISO 10140-1/2:2010 EN ISO 717-1:2013
15-003642-PR01 / PB05 ift Rosenheim	08.03.2016	Until updated	Airborne sound insulation	EN ISO 10140-1/2:2010 EN ISO 717-1:2013
15-003642-PR01 / PB03 ift Rosenheim	08.03.2016	Until updated	Airborne sound insulation	EN ISO 10140-1/2:2010+A1:201+A2:2014 EN ISO 717-1:2013
15-003642-PR01 / PB02 ift Rosenheim	08.03.2016	Until updated	Airborne sound insulation	EN ISO 0140-1/2:2010+A1:2012+A2:2014 EN ISO 717-1:2013
15-003642-PR01 / PB01 ift Rosenheim	08.03.2016	Until updated	Airborne sound insulation	EN ISO 0140-1/2:2010+A1:2012+A2:2014 EN ISO 717-1:2013
14-003469-PR24 ift Rosenheim	09.09.2015	Until updated	Durability, operating forces, reveal and rebate obstruction test	EN 14351-1:2006-+A1:2010
14-003469-PR09 ift Rosenheim	09.09.2015	Until updated	Durability, operating forces, reveal and rebate obstruction test	EN 14351-1:2006-+A1:2010
14-003469-PR04 ift Rosenheim	20.10.2015	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading	EN 14351-1:2006-+A1:2010
14-003469-PR06 ift Rosenheim	13.01.2016	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading, impact on climate, weathertightniess of corner joints	ift guideline FE-13/1:2011-04
14-003469-PR07 ift Rosenheim	07.01.2016	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading, impact on climate, weathertightniess of corner joints	ift guideline FE-13/1:2011-04
14-003469-PR08 ift Rosenheim	15.09.2015	Until updated	Impact resistance	EN 14351-1:2006-+A1:2010
14-003469-PR05 ift Rosenheim	26.10.2015	Until updated	Resistance to wind load, watertightness, air permeability, operating forces, mechanical loading	EN 14351-1:2006-+A1:2010

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Test report No. Test institute	Date	Valid to	Type of test	Underlying standards
16-000156-PR02 / PR03 ift Rosenheim	08.06.2016	Until updated	Air permeability, watertightness, resistance to wind load	EN 14351-1:2006+A1:2010
16-003200-PR01 / PR02 ift Rosenheim	08.06.2016	Until updated	Air permeability, watertightness, resistance to wind load	EN 14351-1:2006+A1:2010
14-003469-PR16 ift Rosenheim	18.02.2016	Until updated	Air permeability, watertightness, resistance to wind load, operating forces, impact on climate, reveal and rebate obst-ruction test	ift guideline VE-08/1 :2011-09
14-003469-PR17 ift Rosenheim	18.02.2016	Until updated	Air permeability, watertightness, resistance to wind load, durability, impact resistance, operating forces, mechanical loading	ift guideline VE-08/1 :2011-09

Appendix 1Test, 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 ($W/(m^2K)$)	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

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