Disclaimer:

SCHÜCO

1. Facade Information

Profile system:

Vertical frame:

Vertical frame weight:

Top frame:

Top frame weight:

Bottom frame:

Bottom frame weight:

Vertical glazing bar:

Vertical glazing bar weight:

Horizontal glazing bar:

Horizontal glazing bar weight:

Insulating glass

Block distance:

Glass ID	Weight	Makeup

2. Applied Load

Peak velocity pressure(q_p)	kN/m^2			
Pressure Coefficient (c_p):	c_{pe}		c_{pi+}	c_{pi-}
Horizontal live load (q_H):	kN/m	**Horizontal live load height:**		mm
Dead load	Density of glass	$2500 kg/m^3$		
	Aluminum	$2700 kg/m^3$		
Load factors	For wind load	γ_W =		
	For horizontal live load For	γ_H =		
	dead load	γ_g =		

Load combinations:

Ultimate Limit States	Load combination 1 (LC1)	γ_W*Wind load + 0.7*γ_H*Live load
	Load combination 2 (LC2)	0.6*γ_W*Wind load + γ_H*Live load
	Load combination 3 (LC3)	γ_g*Dead load
Serviceability Limit States	Load combination 4 (LC4)	Wind load
	Load combination 5 (LC5)	Dead load

3. Codes and Specifications

[1] DIN EN 1991-1-1, Actions on structures – Part 1-1: General actions – Densities, self-weight, imposed loads for buildings, 2010-12.

[2] DIN EN 1991-1-1, National Annex – Nationally determined parameters, Actions on structures – Part 1-1: General actions – Densities, self-weight, imposed loads for buildings, 2010-12.

[3] DIN EN 1991-1-4, Actions on structures – Part 1-4: General actions – Wind actions, 2010-12.

[4] DIN EN 1991-1-4, National Annex – Actions on structures – Part 1-4: General actions – Wind actions, 2010-12.

[5] DIN EN 1999-1-1, Design of aluminum structures – Part 1-1 General structural rules, 2014-03.

[6]

4. Allowable Deflection

In out-of-plane direction (horizontal), allowable deflection follows

In in-plane direction (vertical), allowable deflection is

5. Materials

	Young's modulus (E)	Poisson's ratio (υ)	0.2% apparent limit of elasticity ($\beta_{0.2}$)	Partial factor for material property (γ_M)
Extrusion	70 GPa	0.33		1.1