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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
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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	2500kg/m ³	
	Aluminum	2700kg/m ³	
Load factors	For wind load	$\gamma_W =$	
	For horizontal live load For	$\gamma_H =$	
	dead load	$\gamma_g =$	
Load combinations:			
Ultimate Limit States	Load combination 1 (LC1)	$\gamma_W * \text{Wind load} + 0.7 * \gamma_H * \text{Live load}$	
	Load combination 2 (LC2)	$0.6 * \gamma_W * \text{Wind load} + \gamma_H * \text{Live load}$	
	Load combination 3 (LC3)	$\gamma_g * \text{Dead load}$	
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

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