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1. Facade Information

Profile system:

Facade major mullion:

Major mullion weight:

Facade minor mullion:

Minor mullion weight:

Facade transom:

Transom 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	Glass density 2500 kg/m^3	Aluminum density 2700 kg/m^3	Steel density 7800 kg/m^3
Load factors	Wind load $\gamma_W =$	Horizontal live load $\gamma_H =$	Dead load $\gamma_g =$
Load combinations			
Ultimate Limit States (ULS)	Load combination 1 (LC1)	$\gamma_W \cdot \text{Wind load} + 0.7 \cdot \gamma_H \cdot \text{Live load}$	
	Load combination 2 (LC2)	$0.6 \cdot \gamma_W \cdot \text{Wind load} + \gamma_H \cdot \text{Live load}$	
	Load combination 3 (LC3)	$\gamma_g \cdot \text{Dead load}$	
Serviceability Limit States (SLS)	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 (horizontal) direction, allowable deflection follows

In In-Plane (vertical) direction, allowable deflection is

5. Materials

	Young's modulus (E)	Poisson's ratio (ν)	0.2% apparent limit of elasticity ($\beta_{0.2}$)	Partial ratio for material (γ_M)
Extrusion	70 GPa	0.33		1.1
Reinforcement (Aluminum)	70 GPa	0.33		1.1
Reinforcement (Steel)	210 GPa	0.30		1.1