

## 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:**

Block distance:

Glass ID	Weight	Makeup

## 2. Applied Load

**Peak velocity pressure ( $q_p$ ):**  $kN/m^2$

**Horizontal live load ( $q_H$ ):**  $kN/m$

**Horizontal live load height:**  $mm$

## 3. Materials

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

## 4. Allowable Deflection

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

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

5. Results

Vertical Members Load and Reaction

Member ID	Tributary area (m²)	Pressure coefficient (c <sub>p</sub> )	Applied wind load (kN/m²)	Out-of-Plane Reaction force (kN) (unfavorable load combination)			
				A <sub>k</sub>	A <sub>d</sub>	B <sub>k</sub>	B <sub>d</sub>

Vertical Members Section and Deflection Check

Member ID	Status	W <sub>x</sub> (cm³)		I <sub>x</sub> (cm⁴)		Out-of-plane deflection (mm)	
		Available	Required	Available	Required	Existing	Allowable

5. Results

Horizontal Members Load and Reaction

Member ID	Tributary area (m²)	Pressure coefficient (c <sub>p</sub> )	Applied wind load (kN/m²)	Reaction force (kN) (unfavorable load combination)							
				Out-of-plane				In-plane			
				A <sub>k_out</sub>	A <sub>d_out</sub>	B <sub>k_out</sub>	B <sub>d_out</sub>	A <sub>k_in</sub>	A <sub>d_in</sub>	B <sub>k_in</sub>	B <sub>d_in</sub>

Horizontal Members Section and Deflection Check

ID	Status	Profile extrusion										Deflection (mm)			
		W <sub>x</sub> (cm³)		I <sub>x</sub> (cm⁴)		W <sub>y</sub> (cm³)		I <sub>y</sub> (cm⁴)		σ <sub>total</sub> (N/mm²)		Horizontal		Vertical	
		Avail.	Req.	Avail.	Req.	Avail.	Req.	Avail.	Req.	Avail.	Req.	δ <sub>h</sub>	δ <sub>h-allow</sub>	δ <sub>v</sub>	δ <sub>v-allow</sub>