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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] **DIN EN 13830**, Curtain wall product standard, 2015-07.

4. Allowable Deflection

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

In in-plane direction (y-direction), allowable deflection is the lower value of $L/$ and 3mm.

5. Materials

5.1 Aluminum -

Young's modulus	$E = 70\text{GPa}$
Poisson's ratio	$\nu = 0.3$
0.2% apparent limit of elasticity	$\beta_{0.2} = \text{MPa}$
Coefficient of thermal expansion	$\alpha = 23\text{e-}06 \text{ 1/K}$

5.2 Thermal break -

Shear strength	-20°C	$R_{USV_{-20}} =$	N/m	Elastic constant	-20°C	$C_{-20} =$	N/mm^2
Shear strength	+80°C	$R_{USV_{+80}} =$	N/m	Elastic constant	+20°C	$C_{20} =$	N/mm^2
Tensile strength	-20°C	$R_{UST_{-20}} =$	N/m	Elastic constant	+80°C	$C_{80} =$	N/mm^2
Tensile strength	+80°C	$R_{UST_{+80}} =$	N/m				
Reduction factor (A2) for aging and behavior under long period of loading $A_2 = 1.2$							