



dualseal
a vandaglas company

Physical Properties of Glass

Density

The density of soda-lime-silicate glass (glass in building) is 2500 kgm⁻³.

Compressive strength

The compressive strength of glass in building is 1000 Nmm⁻².

Mechanical strength

Values for the mechanical strength of glass in building are listed in the table below;

Glass Type	Mechanical Strenght (Nmm ²)
Float (clear, tinted & coated)	45
Toughened float* (clear, tinted & coated)	120
Toughened float (enameled)	75
Toughened (patterned)	90
Heat strengthened (clear, tinted & coated)	70
Heat strengthened (enameled)	45
Heat strengthened (patterned)	55

*The values in this table also represent the strength of heat soaked thermally toughened soda lime silicate safety glass (4 mm and thicker).

Young's modulus

The modulus of elasticity for glass in building is 70 GPa.

Poisson's ratio

Poisson's ration for glass in building is 0,2.

Coefficient of linear expansion

The coefficient of linear expansion between 20 and 300 degrees Celsius is $9 \times 10^{-6}K^{-1}$

Resistance against sudden temperature change

Resistance against temperature differential and sudden temperature change are listed in the table below;

Glass Type	Allowable Temperature Difference (k)
Float	40
Toughened and Heat soaked float	200
Heat strengthened float	100

Surface Emissivity

The normal emissivity of glass in building is 0,89, the corrected emissivity is 0,837.

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