

Corning® Fusion5™ Glass is the world's first purpose-built auto exterior glass composition, optimized for glazing constructions and processes, and designed to deliver windshields with superior durability, reliability and optical performance.

Advantages

Corning® Fusion5™ Glass outperforms incumbent glasses* on key windshield attributes:



Failure Rate

- 2x better sharp impact
- 2x better thermal shock resistance



In-Use Durability

- Optical: 2x lower optical decay
- Mechanical: 5x better scratch performance



Windshield Optics

- ~10 mdpt lower optical distortion
- Best-in-class optical transmission



Weight

- 12% weight savings



Glazing compatibility

- 2x lower CTE resulting in lower edge stress
- 50% higher decoration strength (ROR)

Dimensions

Available sizes:

- Width up to 1900mm
- Height up to 2150mm
- Thickness: 0.7mm to 3.8mm

Samples and custom dimensions available upon request

Material Properties

Density	2.266 g/cm ³
E-Modulus	63.7 GPa
Poisson's Ratio	0.2
Fracture Toughness	0.76 Mpa·m ^{0.5}
Vickers Hardness	523 kgf/mm ²

Durability

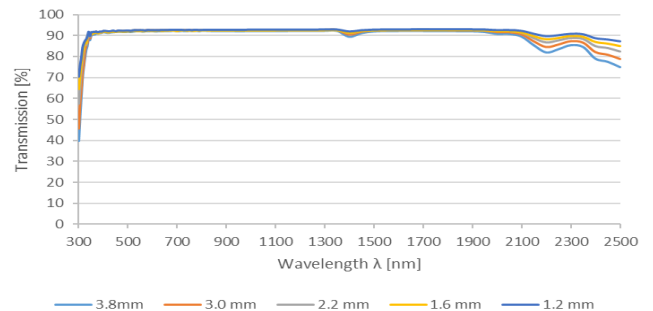
Scratch (Knoop Scratch Threshold)	>4N
Sharp Impact** (Vickers Drop)	>3000mm

Optical Properties

Optical Distortion (@69°, 2.2mm)	10-15 mdpt	
Refractive Index (589.3nm)	1.4804	
Photoelastic Constant	38.2nm/cm/MPa	
Optical Transmission (2.2 mm)	TUV [300-380 nm]	89.6 %
	Tvis	92.4 %
	TTS	92.4 %
	T [1550 nm]	92.6%

Tinted Glass can be made upon request

Transmission at 300- 2500nm



Thermal Properties

Coefficient of Thermal Expansion (0-300°C)	46.6 x 10 ⁻⁷ /°C
Transformation Temperature (Tg)	542.5°C
Softening Point (10 ^{7.6} Poise)	777°C
Anneal Point (10 ¹³ Poise)	542°C
Strain Point (10 ^{14.5} Poise)	496°C
Thermal Conductivity	1.09W/m.K