



# Corning Gorilla Glass for Automotive Interiors

Corning Gorilla Glass for Automotive Interiors is designed to bring the smartphone user experience to vehicles while providing durability and beautiful aesthetics. Gorilla Glass for Auto Interiors, Corning's first technical glass for this use-case, is a cost-competitive solution with the ability to perform to industry safety standards.

## Durability

vs. *Plastics*:

- Greater scratch resistance

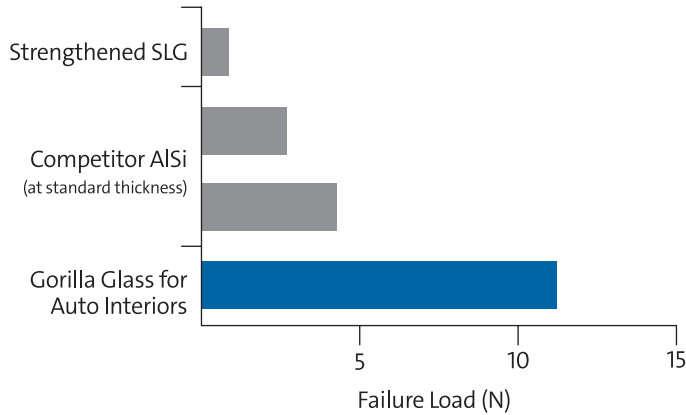
vs. *Soda-Lime Glass (SLG)*:

- >8x greater scratch resistance

vs. *Competitor Aluminosilicate Glass (AlSi)*:

- >2x greater scratch resistance

## Scratch Resistance



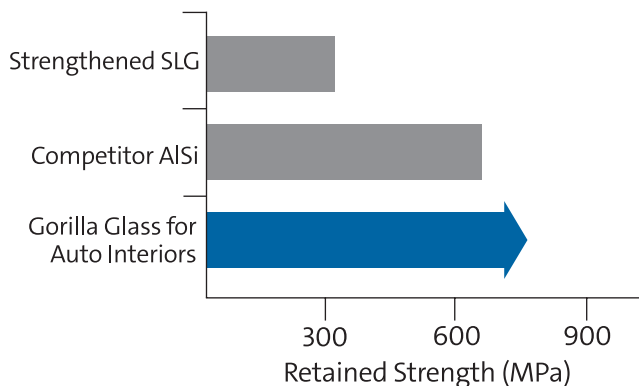
Test Conditions: Scratch with a Knoop indenter with increasing load until lateral crack appears

## Retained Strength

vs. *Chemically Strengthened SLG*:

- Capable of meeting display module level surrogate test for Headform-Impact Test (HIT) without breakage

Industry standards: FMVSS201 and ECE-R21



Glass thickness 1.1 mm; Measured by ring-on-ring after introducing a representative distribution of automotive supply chain flaw sizes. Reference: "Retained Strength for AutoGrade™ Cover Glass" - Layouni et al., Corning, NY, US, SID 2019 26th ANNUAL SYMPOSIUM & EXPO

## Surface Treatments

Help improve readability of displays in ambient sunlight

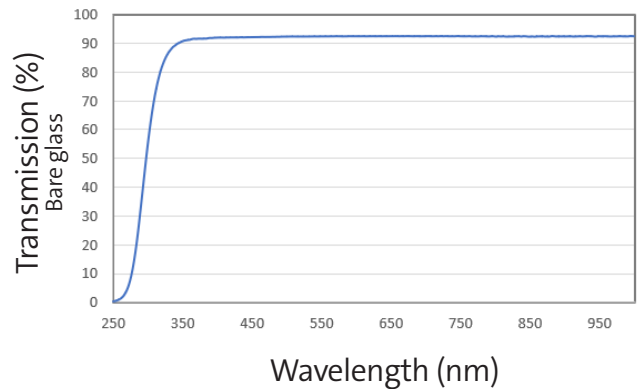
### Anti-Reflective (AR) Coating with Easy-To-Clean (ETC):

- Enhances ambient contrast ratio
- Provides color uniformity over large viewing angles
- Reduces fingerprint visibility, improves removability

### Anti-Glare (AG):

- Reduces reflected ghost image, improves tactile feel
- Mitigates visible sparkle for high-resolution displays

Refractive Index (590nm)	1.51
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## Properties

Density	2.39 g/cm <sup>3</sup>
Young's Modulus	69 GPa
Poisson's Ratio	0.22
Shear Modulus	28 GPa
Coefficient of Thermal Expansion (0 °C – 300 °C)	75.8 × 10 <sup>-7</sup> /°C
Vickers Hardness (200g load) *	
Un-strengthened	534 kgf/mm <sup>2</sup>
Strengthened	649 kgf/mm <sup>2</sup>
Indentation Fracture Threshold (IFT) **	≥150 N
Retained Strength	≥700 MPa

\*Using Vickers indenter: 5 indents with a Vickers diamond are performed on 1 sample with a given load of 200g and a dwell time of 15 sec. \*\*Using Vickers indenter: The crack initiation threshold is defined at the indentation load at which 50% of 10 indents exhibit any number of radial cracks emanating from the corners of the indent impression; Fractography of Glasses and Ceramics VI by James R. Varner, Marlene Wightman

