



# AutoGrade™ Corning Gorilla Glass for 2D Interiors

Automakers are taking in-car technology to the next level with connected cockpit displays that are larger, longer, shaped, and more integrated. As consumers expect the same experience they know from their handheld devices, the industry is turning to technical glass solutions. AutoGrade™ Gorilla Glass enables these trends while still meeting industry reliability standards without the need for added protective films.

## Enhanced Performance

vs. chemically strengthened soda-lime glass (SLG) and other aluminosilicate (AlSi) glasses:

- Widens design window to pass Headform-Impact Test (HIT) without breakage
- No anti-splinter film required, preserving the glass' feel, look, and performance

Industry HIT standards: FMVSS201, ECE-R21, GB11552  
Using Corning's system-level design guidelines

## Surface Treatments

Help improve readability of displays in ambient sunlight

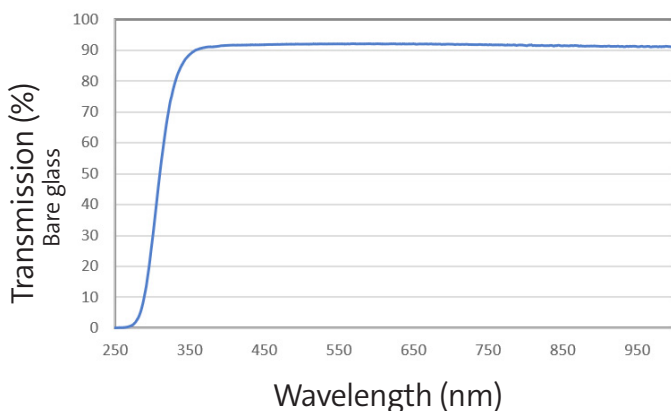
### Anti-Reflective (AR) Coating with Easy-To-Clean (ETC):

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

### Anti-Glare (AG):

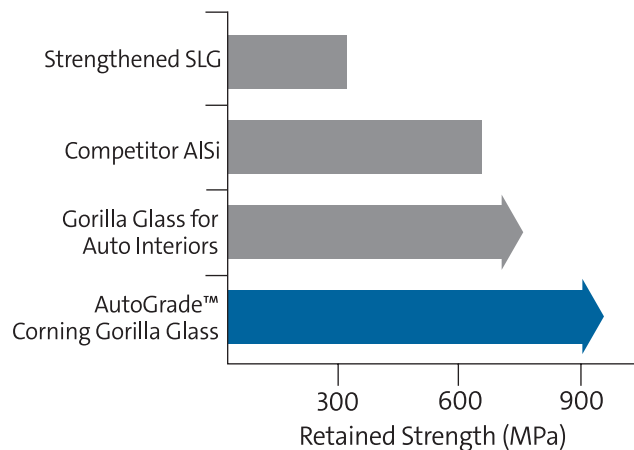
- Reduces reflected ghost image, improves tactile feel
- Mitigates visible sparkle for high-resolution displays

Refractive Index (590nm)	1.51
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## Superior Retained Strength

Exhibits retained strength needed for cockpit display systems to reliably pass HIT without cover glass breakage



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 Auto-Grade Cover Glass" - Layouni et al., Corning, NY, US, SID 2019 26th ANNUAL SYMPOSIUM & EXPO

## AutoGrade™ 2D Properties

Density	2.43 g/cm <sup>3</sup>
Young's Modulus	76 GPa
Poisson's Ratio	0.23
Shear Modulus	31 GPa
Coefficient of Thermal Expansion (0 °C – 300 °C)	81.0 x 10 <sup>-7</sup> /°C
Vickers Hardness*	≥650 kgf/mm <sup>2</sup>
Indentation Fracture Threshold (IFT) **	≥50 N
Retained Strength	≥900 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

