

CORNING
Gorilla® Glass

Corning® Gorilla® Glass for Automotive—Glazing

Product Information

Corning® Gorilla® Glass for Automotive is a fusion-drawn, chemically strengthened aluminosilicate glass for automotive glazing applications. Gorilla Glass for Automotive is deployed in a three-layer hybrid window laminate construction as the thinner inner ply, with a thin polyvinyl butyral middle ply and a conventional thicker soda lime glass layer as the outer ply. This innovative automotive hybrid window laminate is 1/3rd lighter, 2 times tougher, and offers 3 times better optics than a conventional automotive window.

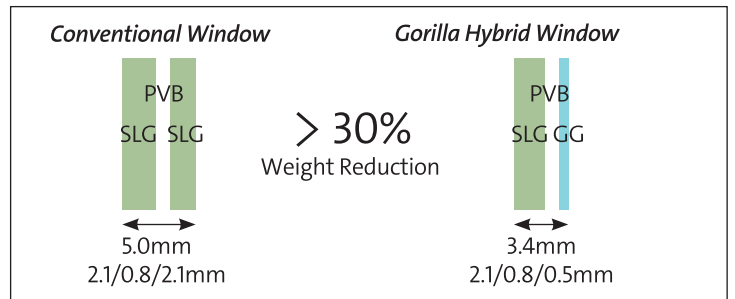
Benefits



1/3 Lighter

Gorilla hybrid windows are 30 to 40% lighter than conventional windows. This means that cars that use Gorilla Glass for Automotive in windshields, roofs, or other car openings can be lighter and have better vehicle performance. This performance is enabled by the following:

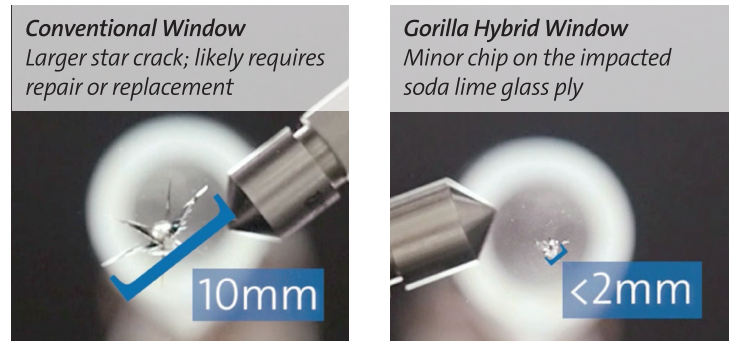
- Better fuel economy and lower carbon dioxide emissions
- Lower center of gravity, which can improve handling, braking, and acceleration
- Faster defrost and defog



2x Tougher

Gorilla hybrid windows are tougher than conventional windows. This toughness is due to Corning's proprietary fusion-draw process and unique glass composition for chemical strengthening, which can enable the following:

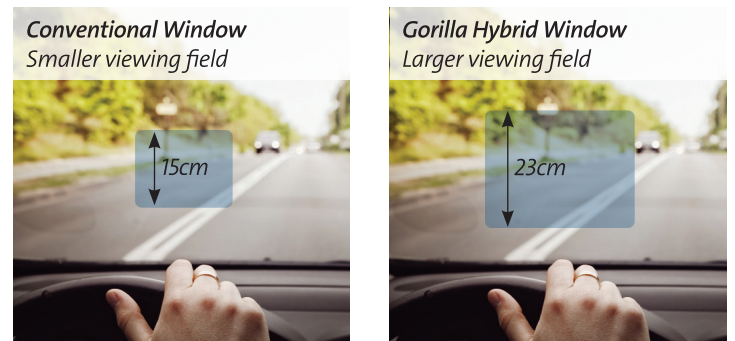
- More than two times impact resistant to both blunt and sharp stones, which translates into fewer severe cracks
- Expected reduction in windshield replacements up to 50%
- Greater strength and better protection from interior glass spall



3x Optically Advantaged

Gorilla hybrid windows feature exceptional optical clarity and are draw-line free. This means that the windows are clearer and better equipped to feature display technologies than conventional windows by enabling:

- Three times larger head-up display (HUD) image quality
- Reduction in image distortion
- Reduction in double and triple ghosting in HUD image



Applications

Corning® Gorilla® Glass for Automotive can be used in virtually all car window types:

- Windshields
- Roofs
- Front sidelites (side windows)
- Rear sidelites (rear side windows)
- Backlites (back windows)
- Bulk heads (interior separation panels)

Properties of Corning® Gorilla® Glass for Automotive

Density	2.44g/cm ³
Young's modulus	71.7GPa
Poisson's ratio	0.21
Fracture toughness	0.7MPa m ^{1/2}
Coefficient of thermal expansion (0-300°C)	83 x 10 ⁻⁷ /°C
Chemical strengthening Compressive stress Typical depth of layer	Capable > 500MPa Capable > 40µm
Thickness	0.4 - 0.7mm
Thickness variation	± 0.1mm



CORNING

For more information about Corning® Gorilla® Glass for Automotive:

Email: gorillaglass@corning.com

Web: corninggorillaglass.com/auto

Corning and Gorilla are registered trademarks of Corning Incorporated, Corning, N.Y., USA
© 2016 Corning Incorporated. All Rights Reserved.

December 2016