Polycarbonate (PC) is a transparent, colorless thermoplastic, and a familiar everyday material. It is employed to make CDs and headlamp diffusers, for instance. PC in its basic form is not as hard as glass, and more prone to scratches and damage from ultraviolet light. Only when it is specially treated to create a two-layer hard coating can its outstanding mechanical, thermal, acoustic and optical properties be exploited in new ways. Eisenmann employed this technology to create vehicle windows made from PC, that are around 40 percent lighter than traditional silica glass.

Eisenmann
Window Hard Coating

Category: Enabling Technology
Application: 2017 Buick GL 8

Weight Savings: 40%
ligher than traditional silica glass

Methodology: Material Optimization