



Better when bird-friendly

Building with glass blurs the lines between inside and out. It helps elevate aesthetics and the experiences of people. Glass is iconic and dynamic. Yet while humans can use environmental cues to identify glass as a barrier, there is growing realization that birds cannot. Unfortunately, researchers estimate that up to a billion birds die each year in the U.S. due to glass and building collisions.¹ Regardless of travel patterns, glass is often an invisible threat for birds, made more hazardous by location, lighting, landscaping and more.

Birds are a significant part of the natural and built environments in which we live and rely upon. Glass design can account for both human needs and bird collision avoidance – and there's growing demand for it.

In the pursuit of glass that delivers on aesthetics, safety and performance, there's a better way. It's bird-friendly.

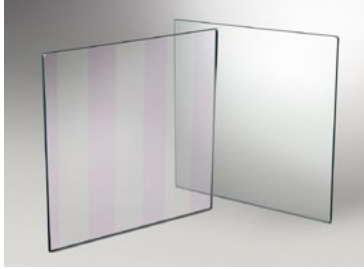
Guardian® bird-friendly glass provides a range of options for safe, high-performing glass – giving architects and designers choice and control.

¹ The Condor: Ornithological Applications, 2014.

Performance that takes flight

Tested by bird conservationists for proven effectiveness, Guardian Bird1st™ UV and Etch are applied to surface 1 of the glass, and frit can be applied to either surface 2 or 3 for best results. When paired with your favorite SunGuard® low-E coatings, they can also help meet the energy performance requirements and support LEED Pilot Credit 55 qualification. Guardian bird-friendly products are available on UltraClear® low-iron glass and standard clear glass.

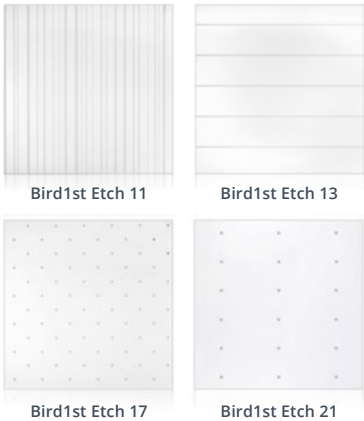
Product details and availability



Guardian Bird1st™ UV

This UV-coated glass helps limit bird collisions while leaving views clear and open.²

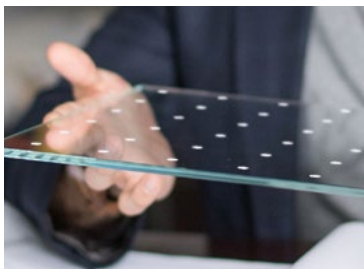
- *Pattern:* Vertical stripe orientation
- *Threat Factor (TF)*
 - UV with SN 68 inboard lami: 26
 - UV with SN 68 outboard lami: 30
 - UV with SNX 62/27 outboard lami: 25
- *Size:* 102" x 144" (maximum)
- *Thickness:* 6mm
- *Safety:* Heat-treated, lamination required



Guardian Bird1st™ Etch

This acid-etched glass gives you a range of aesthetic choices while mitigating bird collisions.

- *Four patterns:* Vertical lines with variable spacing meeting the 2" x 4" Rule; 3mm continuous horizontal lines, spaced 2" apart; 2" x 2" 5mm dots; 2" x 4" 6mm dots
- *Threat Factor (TF)*
 - Bird1st Etch 11: 23
 - Bird1st Etch 13: 30
 - Bird1st Etch 17: 25
 - Bird1st Etch 21: 25
- *Three SunGuard low-E coatings:* SN 68, SNX 62/27 and SNX 51/23
- *Size:* 96" x 130" (maximum)
- *Thickness:* 6mm
- *Safety:* Heat-treated, laminated inboard lite optional



Bird-friendly fritted glass

Fritted glass is most visible to the human eye and offers the greatest data around efficacy in protecting birds.

- *Three patterns:* 20% white dots, 40% white dots, 20% dark gray lines
- *Threat Factor (TF)*
 - 20% dots with SNX-L 62/34: 21
 - 40% dots with SNX-L 62/34: 22
 - 20% lines with SN-L 68: 28

Learn more about our bird-friendly approach at GuardianGlass.com.

² The UV stripes are more pronounced when the glass is wet or when condensation forms. Surface residue can also make the stripes more visible.

www.guardianglass.com

Phone: 1.866.482.7374

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GLASS**
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