

# Q & A: WHAT IS BIRD-FRIENDLY GLASS

Bird friendly glass is used on buildings, railings and other structures to prevent bird collisions.

## Why do we need bird-friendly glass?

Collisions with glass claim the lives of millions of birds every year in North America. Birds are unable to see that windows are present and often don't survive impact as they attempt to reach shelter, food and migratory paths that are reflected in glass.

## How do I know which bird-friendly glass to use?

There is more than one way to create a bird-friendly building. Selecting a bird-friendly glass solution depends upon the human visual experience specified. Ideally, you want to create a pleasant visual aesthetic. Here is an example. According to the [American Bird Conservancy](#) the easiest way to stop birds hitting windows is to apply visible patterns, specifically vertical stripes spaced four inches apart of horizontal stripes spaced two inches apart, known as the 2 x 4 rule, to the outside of windows. This solution is highly-effective but large visible patterns decrease the quality of our visual experience.

## What do bird-friendly glass solutions cost?

If bird-friendly solutions are considered early in the design process, they should not increase the project costs. The cost of bird-friendly glass increases with the level of transparency specified.

## What are the options for architectural bird-friendly glass?

The options are visible or highly-transparent patterns on glass.

## Ultraviolet Reflective Patterns on Glass

Birds can see into the ultraviolet spectrum of light, a range largely invisible to people. Ultraviolet reflective patterns virtually invisible to humans but visible to birds are highly effective solutions for bird-window collision avoidance.

This is where [GlasPro Bird Safe glass](#) with ultraviolet reflective patterns can help prevent bird-window collisions. With an [American Bird Conservancy \(ABC\) Avoidance Index \(AI\)](#) of 79%, GlasPro's Bird-Safe glass significantly exceeds the ABC's minimum standard for effective bird collision deterrent materials of 70 percent. Under sunny conditions the product's AI is 84% which is considered highly effective. Birds avoid the glass when they see the ultraviolet reflective patterns in GlasPro Bird Safe. The GlasPro solution is highly-transparent to the human eye which enhances the visual experience.



The Richmond Ferry Terminal features GlasPro Bird Safe ultraviolet reflective pattern glass

## Acid Etched Patterns

Acid-etched glass that has been treated with hydrofluoric acid to give its surface a frosted look. Bird-friendly solutions with acid-etched designs on the surface of the glass provide a great chance for birds to identify the glazing surface and avoid collision. This type of solution gives the building's exterior a distinctive look with eye-catching patterns.

GlasPro offers the Walker AviProtek® solution with the acid-etched designs on the number one surface of the glass. Etched patterns are located on the outside surface making the glass likely to obscure reflections.



Acid Etched Pattern



Frit Pattern

## Frit Patterns

Ceramic dots, lines, and other patterns can be screened or printed on to glass surfaces. This is often done to reduce the transmission of light and heat and can provide design detail. In some cases, frit patterns are hardly visible, but when designed according to the 2 x 4 rule, patterns on glass can also prevent bird strikes. Patterns on the outside surface of glass deter collisions most effectively because they are always visible, even with strong reflections. Frit can also be applied to an internal surface of insulated glass. With the right combination of surface reflectivity and frit application, a pattern on an inside surface can be effective but it is not transparent to people.

For more information about bird-friendly glass, please contact GlasPro.