



WHAT TO KNOW ABOUT WINGSAFE BIRD PROTECTION FILM

WHY IS BIRD PROTECTION FILM IMPORTANT?

Every year hundreds of millions of birds around the world die from colliding with windows and glass facades. This issue is a serious concern for nature conservation, as it impacts bird populations and biodiversity.

CAN BIRDS “SEE” GLASS?

No. Bird vision is geared toward distance and motion detection, rendering them unable to differentiate between clear or reflective glass and open airspace. Large spans of clear glass appear to be whatever is behind them – rather than a barrier – while reflective glass is perceived as a continuation of what it is reflecting, typically trees or sky.

WHAT BIRDS AND AREAS ARE MOST IMPACTED?

Woodland insectivore songbirds like warblers, vireos, and thrushes, that are migrating through areas covered by the four primary North American flyways



WHEN ARE COLLISIONS MOST PREVALENT?

Typically during spring and fall migration periods, particularly at dusk and dawn hours as birds migrate during the night.

MOST BIRDS IN NORTH AMERICA ARE MIGRATORY

70%

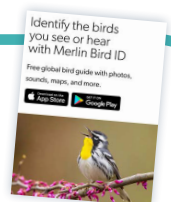
of terrestrial recurring birds are migratory.

80%

of those birds migrate at night



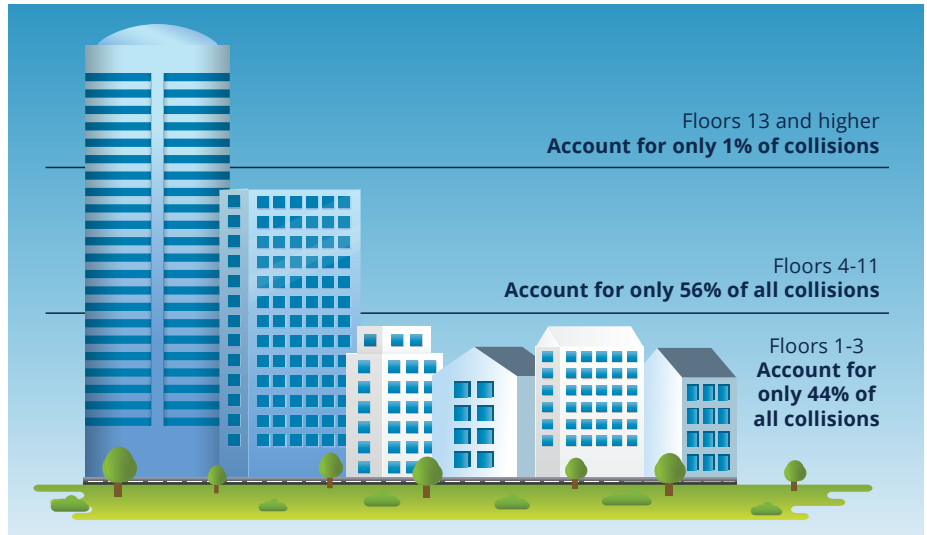
Want to easily identify and learn more about your local birds? Download the **Merlin Bird ID app** from Cornell Lab of Ornithology. Using photos or recorded sounds Merlin Bird ID will tell you what bird you're seeing or hearing, and provide you with a wealth of knowledge about that bird and others in your area.



IS IT JUST HIGH-RISE BUILDINGS THAT ARE DANGEROUS?


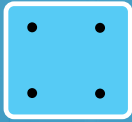

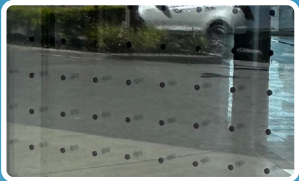


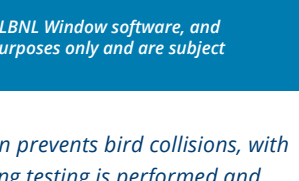
No, on the contrary, actually. The vast majority of collisions occur on structures with 1-11 floors (residences and low-rise commercial buildings).

Source: Scott R. Loss, Tom Will, Sara S. Loss, and Peter P. Marra "Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability," *The Condor* 116(1), 8-23, (2 January 2014). <https://doi.org/10.1650/Condor-13-090.1>



WHAT OPTIONS DO I HAVE TO MAKE MY GLASS MORE BIRD-FRIENDLY?

Retrofit options range from screens to stickers to low-reflective materials. Solar Gard has developed the WingSafe Bird Protection Film Series to allow building owners and property managers to cost-effectively distinguish their glass to birds, preventing deadly collisions and promoting sustainability.

PERFORMANCE TESTS RESULTS				
				
	WingSafe Black Dot	WingSafe Solar 80 Black Dot	WingSafe White Dot	
Manufacturer Warranty	10 Years	10 Years	10 Years	
Threat Factor (TF)*	4 (ABC)	14 (ABC)	19 (ABC)	
% Visible Light Transmittance	87	75	87	
% Visible Light Reflectance (Exterior)	10	9	10	
% Visible Light Reflectance (Interior)	10	9	10	
Solar Heat Gain Coefficient	.79	.55	.79	
% Total Solar Energy Rejection (TSER)	21	45	21	

Performance Notes: Performance results are based on film applied to 1/4" (6 mm) clear glass and calculated using NFRC methodology and LBNL Window software, and are subject to variations within the industry standards and only intended for estimation purposes. This data is provided for informational purposes only and are subject to normal manufacturing variances.



*Threat Factor (TF) ratings are determined by how effectively a pattern prevents bird collisions, with **lower numbers indicating greater success** in deterring strikes. Rating testing is performed and certified by American Bird Conservancy (ABC), one of the world's leading organizations focused on bird conservation action and advocacy.



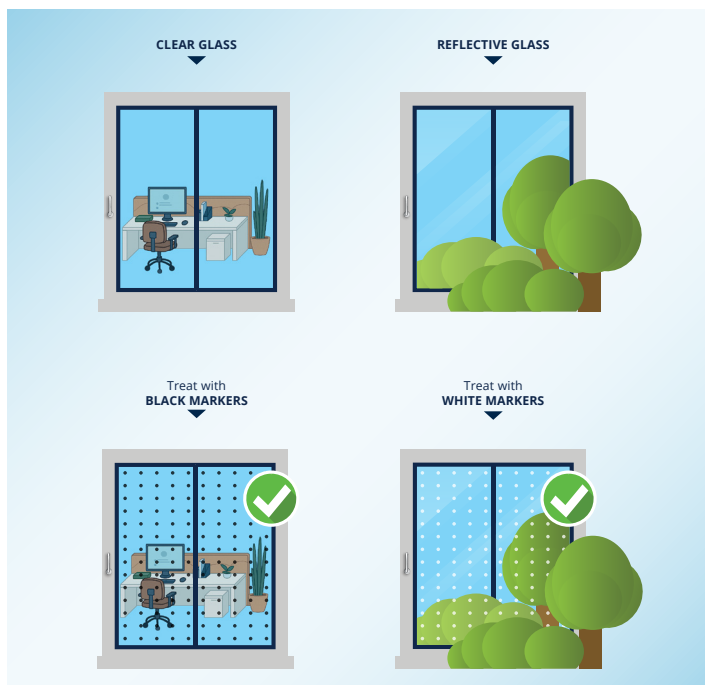
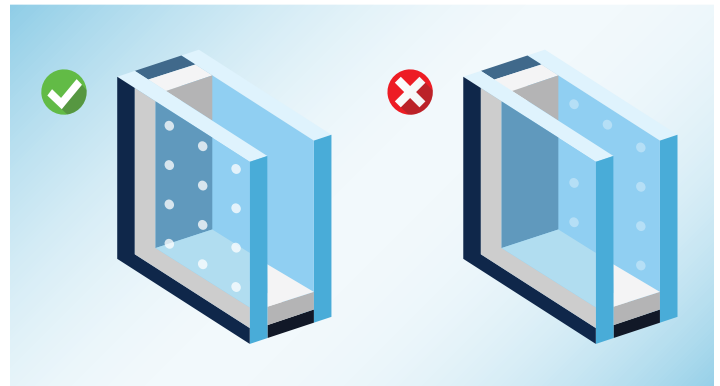
Interested in real-time migration statistics for your area?
BirdCast (also from Cornell Lab) will show you how many and what kind of migratory birds are flying over your area on any given day.



I'M INTERESTED IN WINGSAFE. HOW DO I SELECT THE RIGHT FILM FOR MY GLASS TYPE?

1 CORRECT PLACEMENT

You need to make sure any WingSafe film product is being placed correctly on glass – on the exterior. Most window films are applied on the inside, but for the birds to recognize the dot pattern it needs to be installed facing the outside. WingSafe films feature an exceptionally durable surface coating that has been tested and qualified for the elements (it's why they come with a 10-year warranty).



2 MAXIMUM CONTRAST

Now let's look at the type of glass. We want to achieve maximum contrast to be as visible as possible to the birds flying nearby.

Clear Glass

WingSafe Black Dot or Solar 80 Black Dot provide the most contrast with their black dots.

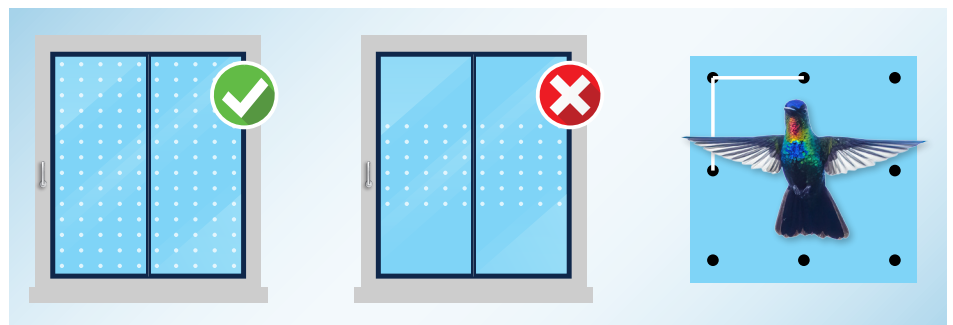
Reflective Glass

On lower floors where glass will likely be reflecting dark imagery (i.e., vegetation), WingSafe White Dot will pop against that background.

On higher floors where glass will likely be reflecting the sky and clouds, Black Dot products will stand out more.

3 FULL COVERAGE AND OPTIMUM DOT SPACING

Full coverage of window or door glass is recommended, as the problem will still exist on any untreated areas. All our WingSafe dot patterns feature the 2.125 x 2.125 spacing that has been shown to be most visible to birds.




See WingSafe films in the [American Bird Conservancy's](#) product database and learn more about this important organization.





www.solargard.com/WingSAFE

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