Solar Gard® SAINT-GOBAIN

WingSafe™
BIRD PROTECTION FILM

" AN EFFECTIVE AND DURABLE SOLUTION FOR A SAFER WORLD FOR BIRDS! "

Each year, hundreds of millions of birds die across Europe due to collisions with windows and glass facades. This issue is a serious concern for nature conservation, as it impacts bird populations and biodiversity.

One major factor is the rise in buildings with high percentages of glass in their facades, which has drastically altered birds' natural habitats. Common solutions, such as stickers resembling birds of prey, have proven largely ineffective in reducing both the frequency and risk of these collisions.

Just as Saint-Gobain seeks solutions to incorporate bird protection measures into new glass designs, Solar Gard is focusing on making existing facades and glazing more bird-friendly.

Special attention is needed for transparent surfaces that offer unobstructed views of the sky, vegetation, and natural landscapes—such as in conservatories, winter gardens, lobbies, lift enclosures, and large glass facades. Buildings in open landscapes or near transport routes present significant hazards for birds. Reflective surfaces are also problematic, as birds cannot distinguish reflected images of trees, branches, or the sky from the real thing. From a bird protection standpoint, reflective glass should be treated with the same urgency as clear glass.

SOLAR GARD WINGSAFE™ MAKES EXISTING FACADES AND GLAZINGS MORE BIRD FRIENDLY
EFFICIENCY VERIFIED THROUGH INDEPENDENT TESTING

1 - Threat Factor as low as 4%.

2 - A multi-layer product consisting of optically clear, outside weatherable, polyester film with Solar Gard's proprietary Outside Weatherable hardcoat.

3 - Pattern integrated in the product: unlike solutions with stickers, there is no risk for discoloration, accidental removal or damage of the dots.

4 - No edge sealing required on vertical surfaces. Applied like any other outside weatherable window film.

5 - 10 year product warranty on vertical surfaces.**

6 - Special adhesive allowing removal without leaving traces of adhesive on the glass.

7 - Standard roll length : 30 m. Longer rolls possible on a project basis. Also cut-to-size solutions available.

8 - No special maintenance required. The pattern (dots) do not interfere with the cleaning.

9 - Blocks >99% of the harmfull UV radiation.

TF = 4%* THREAT FACTOR | **American Bird Conservancy**

*Enhancing Existing Glass for a Safer World for Birds.*

SAINT-GOBAIN

Solar Gard® WingSafe™

Solar Gard WingSafe™ Black Dot has been tested at Foreman's Branch Bird Observatory of the **American Bird Conservancy** (abcbirds.org) resulting in a **TF (Threat Factor) = 4%.**

The Threat Factor (TF) of a solution is based on flying at least 80 individual birds down the tunnel and recording whether they fly towards the control or towards the patterned test pane. For example, suppose 100 birds (> 80) flew down the tunnel, with 3 flying towards the test pattern and 97 toward the control. 3% (3/100) of the birds flew towards the test pattern and is then: TF=3.

In addition **Solar Gard WingSafe™ Black Dot** has also been tested at the **Biologischen Station Hohenau-Ringelsdorf, Austria** (WIN-Tests im Flugtunnel II) on a **reflective glass pane (41% reflectivity)**. The **TF** obtained under was **13%** (sunny conditions) and 16% (clouded conditions).

Typically, tests are conducted on clear glass but, in reality, modern glazing often have reflective coatings to achieve better U-values or G-values. Testing **Solar Gard WingSafe™ Black Dot** under higher reflectance conditions provided a more rigorous evaluation of its effectiveness, simulating conditions such as reflective glazing or presence of solar window films. **Solar Gard WingSafe™ Black Dot** is the first and, so far, only product tested specifically on reflective glass.

OUTSIDE VIEW

INSIDE VIEW
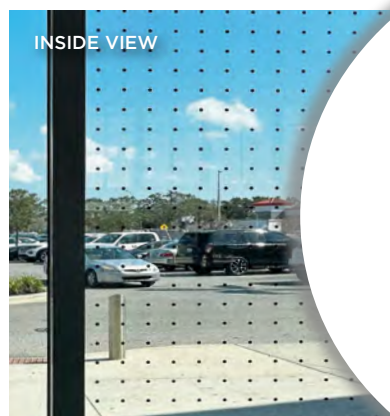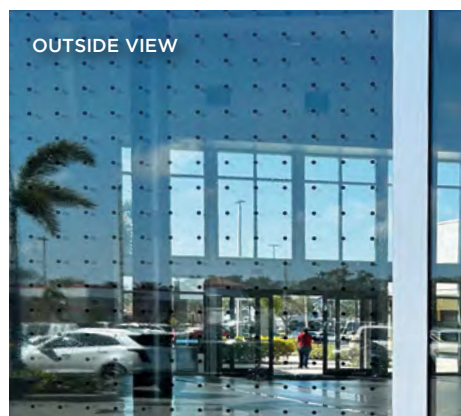
Currently **WingSafe™** comes with 1 pattern: 11 mm black dots at 65 mm distance in an orthogonal grid.

65 mm   11 mm   65 mm
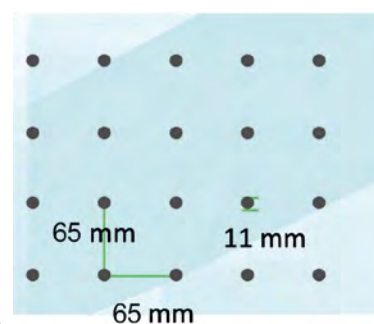
Coverage: 2,2%

Product Performance and physical characteristics on 6 mm clear double glazing		Solar Gard WingSafe™
TF	Threat factor %	4
Visible Light	Transmittance %	81
	Reflectance exterior %	10
	Reflectance interior %	9
Solar Energy	Total solar energy rejected (TSER) %	26
Ultraviolet Light	UV Blocked @300-380 nm %	>99
Product Thickness (µM)		100-125
Fire Reaction	EN 13823	B-s1, d0

Product Code	SF53000000-60100 (100 FT ROLLS)
	SF53000000-60200 (200 FT ROLLS)

Notes
Performance results are calculated using NFRC methodology and LBNL Window software, and are subject to variations within industry standards and only intended for estimating purposes. This data is provided for informational purposes only and are subject to normal manufacturing variances.
*American Bird Conservatory, USA and TF=13% on reflective surface (WIN-Tests Flugtunnel II, Austria) **For details see the Solar Gard SWT&C on www.solargard.eu.