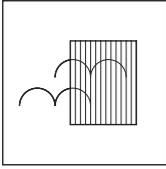


# Bird-friendly



Tvitec System Glass 

 TvitecGlass



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# *Bird friendly*

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**1**

*Overview. Always Innovating*

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# *Environmentally friendly Glass*

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**2**

*Technical Features | Advantages*

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**3**

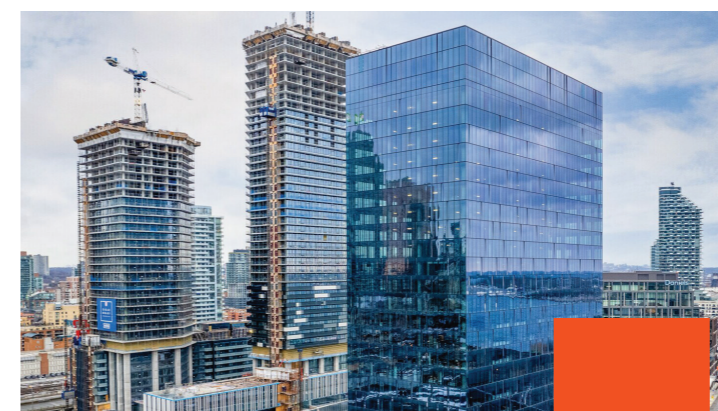
*Sustainable Technology*

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**4**

*Tvitec Bird-friendly Padel Courts*

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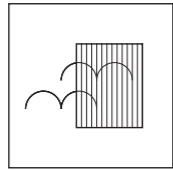


**5**

*Success Case in Toronto. 100 Queens Quay*

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# 1



## Overview



Campus Google. Bay View. USA

**Tvitec | Cricursa is at the forefront of incorporating advanced technologies in the production of bird-friendly glass, designed to prevent bird collisions with glass surfaces in buildings and outdoor spaces, including sports facilities.**

Our extensive range of solutions, patterns, and even various shades ensures that bird-friendly surfaces are not only visible to avian species but also maintain a transparent aesthetic for human observers.

Our cutting-edge technology can be seamlessly integrated into laminated, tempered, and insulated glass, whether for flat or curved units. This adaptability makes it a prescribable choice for architects, façade specialists, and builders in a wide range of construction projects.

The design of graphic patterns, including considerations such

as size, spacing, and tone, plays a pivotal role in ensuring the effectiveness of glass protection.

At Tvitec, we bring a wealth of experience to the table, having successfully designed and implemented these patterns in international projects.

A prime example is our contribution to the new **Google Bay View Campus, where we supplied over 20,000 square meters of bird-friendly glass** for the façade, meeting an essential requirement of the project.

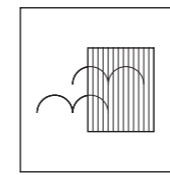


# In-Depth Insights

## TECHNICAL FEATURES

### BIRD-FRIENDLY GLASS

- Visible Patterns: Bird-visible design without obstructing visibility.
- Reduced Reflectance: Less reflection to prevent avian confusion.
- 4 Solutions:
  - Screen Printing
  - Laser Marking
  - UV Coatings
  - Interlayer Lamination
- Visible Transparency: Preserves natural light and interior views.
- Strength and Durability: Robust materials for extended lifespan and complete safety.



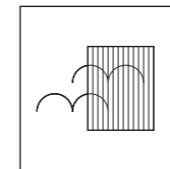
### 4 SPECIAL TREATMENTS

SCREEN PRINTING

LASER MARKING

UV COATINGS

INTERLAYER LAMINATION



### ADVANTAGES

BIRD PROTECTION

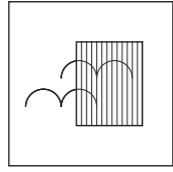
SUSTAINABILITY

REGULATORY COMPLIANCE

AESTHETICS AND COMFORT

SOCIAL RESPONSIBILITY

# 3



## Sustainable *technology*

**Laser printing ensures that the glass surface remains entirely unaffected. Elements, points, or designs are applied using a laser in combination with a tape of nanoparticles. No post-processing or glass heating is required. The resulting printing is exceptionally fine, resistant to fading, light, stains, scratches, and harsh weather conditions.**

Among its protective properties is the subtle reflection of the printing, which scatters light widely, making obstacles visible to birds.

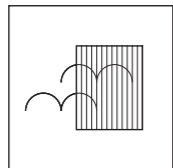
The printing ink used is barely perceptible to humans, but to birds, it serves as a warning of obstacles.

The finishing treatment is applied on the exterior to minimize the

reflection of trees and plants in a way that prevents birds from attempting to fly through them.



# 4



## Padel Courts



**Bird-friendly solutions also excel in their application to the manufacture of sports facilities, specifically in the case of safety glazing for panoramic padel courts. These solutions provide sustainability and bird-friendly features.**

• **10mm and 12mm Tempered or Laminated Glass:**  
Ensuring the highest quality and durability for padel courts.

• **Visible Patterns and Laser Marking:**  
Guaranteeing bird visibility without compromising the gaming experience.

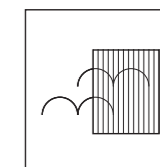
• **Reduced Reflectance:**  
Minimizing reflections to

prevent distractions during play. Contributing to biodiversity and urban sustainability.

• **Visible Transparency:**  
Allowing natural light to flood the court for an excellent playing experience.

• **Strength and Durability:**  
Withstanding heavy use and various weather conditions, ensuring a long-lasting solution for padel courts.

Pista de Pádel Padeltech



### TECHNICAL FEATURES

10MM AND 12MM  
TEMPERED OR  
LAMINATED GLASS

VISIBLE PATTERNS  
AND LASER MARKING

PRECISION DRILLING  
AND EDGING

REDUCED  
REFLECTANCE

VISIBLE  
TRANSPARENCY:

STRENGTH AND  
DURABILITY

### ADVANTAGES

- BIRD PROTECTION ON PADEL COURTS
- SUSTAINABILITY IN SPORTS FACILITIES
- COMPLIANCE WITH LOCAL-NATIONAL REGULATIONS
- MAINTENANCE OF AESTHETICS
- ENHANCEMENT OF GAMING EXPERIENCE AND VISIBILITY FOR THE PUBLIC AND MEDIA
- SOCIAL AND ENVIRONMENTAL COMMITMENT



# 100 Queens Quay LCBO Tower

Toronto, Canada  
Arquitectos: B + H  
Client — Oldcastle Building Envelope  
Glass Type: Tvitec Bird-friendly  
double and triple glazing

comunicacion@tvitec.com 2023

Amigable con las Aves  
*Innovation in Glass*

Curved + Flat  
*Sustainable  
projects*

Bird-friendly Glass