Every year, some 10,000 birds are killed or injured in Toronto’s downtown core alone.

Fatal Light Awareness Program

Birds cannot detect glass as an obstacle because of its transparency and/or reflectivity. They are more likely to see their own reflection, or the reflected surroundings. Birds see these reflections as real, causing collisions with the glass. These collisions are more frequent in areas near water, parks, woods and migratory routes.

GUIDELINES ADOPTED BY TORONTO

In 2007, the City of Toronto adopted formal guidelines to prevent bird collisions with buildings, making it the first city in the world to implement such a bird protection policy (January 2006). Preventive actions against bird collisions with buildings are listed in the « Bird-Friendly Development Guidelines ». 
CONDITIONS THAT CONTRIBUTE TO BIRD INJURY AND MORTALITY:

REGION
● Within a migratory route
● Dense urban context
● Fog-prone and smog area

SITE LOCATION
● Nearby trees and shrubs
● Water features/wetlands

SPECIAL FEATURES
● Curtain wall (Especially butt-joint glazing systems)
● Canopies
● Glass bus shelters
● Glass passageways

GLAZING CHARACTERISTICS
● Tinted glass
● Reflective glass

SOLUTIONS & TECHNICAL DETAILS:
Prel-Design glazing solutions are environmentally friendly products that also qualify for the LEED Program. Using Prel-Design silk screen products, any design can be created on any number of lites of glass that would be visible to birds. Guidelines provided by the City of Toronto suggested applying the patterns (dots, vertical/horizontal lines, etc.) with a maximum distance of 10 cm between features. Applying these solutions to an entire building is ideal. However, to maximise efficiency, the critical area is the first 12 meters above grade.

Following the recommendations suggested by the «Bird-Friendly Development Guidelines», the different patterns of Prel-Design silk-screened glass, presented on the next page, contribute to bird safety, and meet the recommendations shown in the guidelines.
**Prel-Design patterns:**

**Dots 1 %**
- 5 mm diameter spaced
- 100 mm apart center to center
- 1% of coverage

**Dots 30 %**
- 3 mm diameter spaced
- 7 mm apart center to center
- 30% of coverage

**Dots 40 %**
- 3 mm diameter spaced
- 6 mm apart center to center
- 40% of coverage

**Dots 50 %**
- 6 mm diameter spaced
- 11 mm apart center to center
- 50% of coverage

**Lines 30 %**
- 3 mm wide spaced
- 10 mm apart center to center
- 30% of coverage

**Lines 50 %**
- 6 mm wide spaced
- 12 mm apart center to center
- 50% of coverage

**Lines 50 %**
- 3 mm wide spaced
- 6 mm apart center to center
- 50% of coverage

**Holes 60 %**
- 3 mm diameter spaced
- 11 mm apart center to center
- 50% of coverage
## PRODUCTION CAPACITY:

### Prel-Design Production Capacity¹

<table>
<thead>
<tr>
<th>Textile Screen</th>
<th>Minimum Dimensions</th>
<th>Maximum Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>Seamless</td>
<td>200 x 400</td>
<td>7 ⅞ x 15 ¾</td>
</tr>
<tr>
<td>With Seam ²</td>
<td>200 x 400</td>
<td>7 ⅞ x 15 ¾</td>
</tr>
</tbody>
</table>

¹ : Certain conditions apply. Contact us for further information.

² : Although every precaution is taken to minimize the appearance of a seam, it can happen that once the glass is silk screened, it could become visible. The appearance of a seam depends on the complexity and density of the pattern. In some cases it may be preferable to reduce glass size. Contact us for more details.