



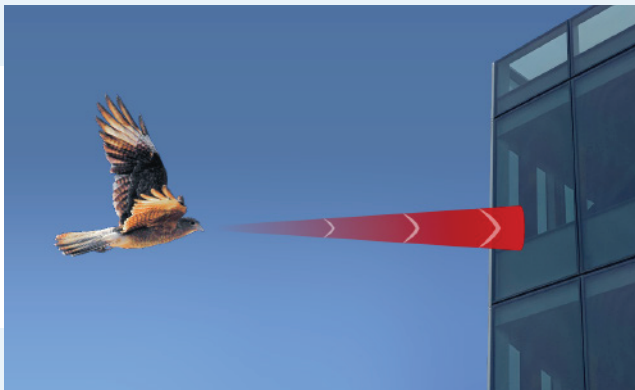
Integral Seal Manufacturing

Laser Etching Bird-Friendly Patterns

DID YOU KNOW ?

Up to 25 million birds die each year in Canada from window collisions.

At Integral Seal, we've created a new laser-etching technology that helps protect birds while keeping buildings energy efficient. Our solution adds bird-friendly patterns to the outer glass surface (surface #1) while keeping the Low-E coating on the inner surface (surface #2). This means you get energy efficiency, natural light, and bird collision prevention—all without sacrificing performance.



NORMAL GLASS



BIRD FRIENDLY LASER ETCHING

WHAT MAKES IT IDEAL



Reduces Collisions

Our laser etching on the outer surface creates a visible obstacle, helping birds recognize the glass and avoid collisions.



Energy Efficient

Low-E coating on surface #2 enhances thermal insulation, reducing heat loss and improving energy efficiency in sealed glass units.



Versatility

Laser etching creates patterns on glass without causing any damage and works with various types, including monolithic, tempered, heat-strengthened, laminated, and insulated glass units (IGUs).



Application

Laser etching creates patterns on glass without causing any damage and works with various types, including monolithic, tempered, heat-strengthened, laminated, and insulated glass units (IGUs).



Durable & Long-Lasting:

Laser Etched patterns are permanent and resistant to wear, ensuring lasting performance and compliance with bird-friendly standards.



Integral Seal Manufacturing

Laser Etching Bird-Friendly Patterns

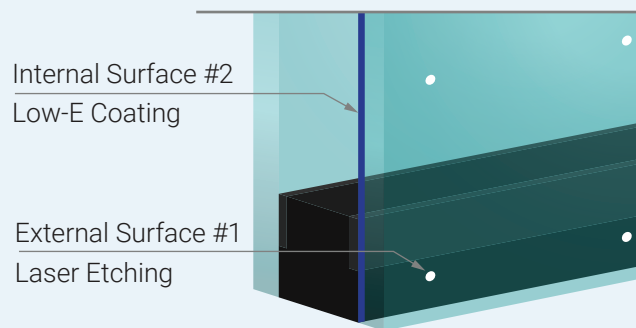


AVAILABLE OPTIONS

The Laser Etching process allows to place the bird friendly patterns, non-destructively on various types of glass. It can be available for Heat-treated glass, Laminated Glass and Insulating Glass.

Specialty Product

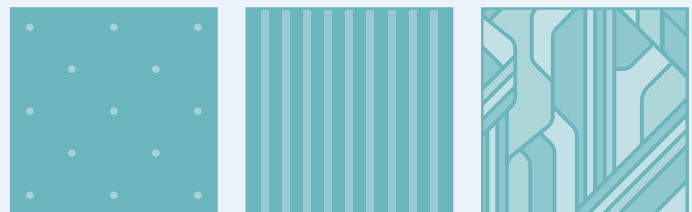
Laser Etched Low-E glass with Bird-friendly patterns on Surface #1 and Low-E soft coat on Surface #2.



Sealed Glass Unit

VISUAL PATTERNS

Our state of the art production has the ability to laser etch any pattern onto glass, including options for various levels of transparency.



GOVERNMENT COMPLIANCE

The laser etching process is in accordance with the Tier 1 terms of the Toronto Green Standards (TGS) Compliance Strategies (s. 114 City of Toronto Act, 2006). These terms state that;

1. Visual markers must be high in contrast to glass.
2. Visual markers must be on the exterior face of glass (Surface #1).
3. The First 12m (30ft) of glass, from ground requires visual markers.