XPEL SECURITY 8mil SILVER 15 WINDOW FILM

XPEL 3-Part Specifications Sheet
Issue date: 12/17/2024

SECTION 1: GENERAL

1.1. SECTION INCLUDES

Specifications is for a film that is shiny, reflective and blocking a significant amount of solar heat While providing privacy. Will hold glass together during breakage.

1.2. REFERENCES

The reference listed below help form part of this specification.

- American Society for Testing Materials (ASTM)
- The Association of International Metallizers, Coaters and Laminators (AIMCAL)
- International Standards Organization (ISO)
- General Services Administration Standard (GSA) Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings
- American National Standards Institute (ANSI)
- International Window Film Association (IWFA)
- National Fenestration Rating Council (NFRC)
- Consumer Product Safety Commission (CPSC)
- ISO (International Organization for Standardization)
- Underwriters Laboratory (UL)

1.3. RELATED SECTIONS

- Section 08400 – Entrances, Storefronts, and Curtain Walls.
- Section 08500 – Windows.
- Section 08600 – Roof Windows and Skylights.
- Section 08800 – Glazing.
- Section 08800 – Glass.
- Section 08870 – Window Films.

1.4. SUBMITTALS

- Submit under provisions of Section 01300.
- Manufacturer's data sheets on each product to be used, including:
  - o Physical properties and independent testing agency reports showing compliance with specified tests.
  - o Preparation instructions and recommendations.
  - o Storage and handling requirements and recommendations.
  - o Installation methods.
  - o Verification Samples: For each finish product specified, two samples, minimum size 6 inches square, representing actual product, color, and patterns.

1.5. QUALITY ASSURANCE

- Manufacturer Qualifications: Solar film will be a standard product of a manufacturer regularly engaged in the manufacture and distribution of such products in satisfactory use for a minimum of 20 years. Manufacturing facility shall have an ISO 14001-2014, ISO 9001-2014
- Installer Qualifications: Installer to furnish documentation to show they are an authorized installer of manufacturer and have preapproval for the application from the manufacturer.
- Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship:
  - o Apply film to one window designated by Architect.
  - o Do not proceed with remaining work until workmanship and color, is approved by Architect.

1.6. DELIVERY, STORAGE, AND HANDLING

- Store products indoors in manufacturer's unopened packaging until ready for installation
- Product name and designated roll id to be clearly displayed on the inside of the film core and exterior of the box

1.7. PROJECT CONDITIONS

- Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's absolute limits.

1.8. WARRANTY

- Provide film manufacturer's standard warranty against failure of film, including change of color, peeling, bubbling, rippling, cracking, delamination and dementalization; include cost of material and labor for removal and reinstallation.
- Duration of warranty to be as follows:
  - o Commercial project warranty - 10 years
  - o Residential Project warranty - Limited Lifetime

SECTION 2: PRODUCTS

2.1. MANUFACTURERS

- Basis of Design; XPEL, Inc. Architectural window films 3251 I-35, San Antonio, TX 78219, Phone (210) 678-8700, email: www.support@xpel.com
- Substitutions: Not permitted

2.2. FILM PERFORMANCE RESULTS

XPEL Security 8mil Silver 15 solar control film will have the following properties when applied to 1/8 inch (3 mm) clear float glass with pressure sensitive adhesive (S-PSA).

Property	Value
Visible Light Transmittance	15%
Visible Light Reflectance (Exterior)	56%
Visible Light Reflectance (Interior)	56%
Solar Transmittance	12%
Solar Reflectance	51%
Solar Absorptance	37%
Ultraviolet Light Blocked (300-380 nanometers)	99%
Total Solar Energy Rejected	79%
Infrared Rejection (780-2500 nanometers)	92%
Shading Coefficient	0.24
Solar Heat Gain Coefficient	0.21
U-Factor	.96
Emissivity	0.70
Glare Reduction	84%

XPEL Security 8mil Silver 15 film will have the following physical and thermal properties

PHYSICAL AND THERMAL PROPERTIES, NOMINAL	Value
Film Thickness:	8 mil
Combustion Rate	Negligible
Melting Point	260-265 0C
Structure	Multi-layer
Tensile Strength lbs./in2	30,000
Peel Strength g/in	>2,500
Break Strength lbs./in	240
Puncture Strength lbs.	141
Adhesive Type	S-PSA
Flammability: (Flame Spread Index according to ASTM E-84)	<25
Flammability: (Smoke Development Index according to ASTM E-84)	<450
ANSI Z97.1-2004: Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test	PASS
CPSC 16 CFR 1201: Safety Standard for Architectural Glazing Materials	PASS

SECTION 3: EXECUTION

3.1. EXAMINATION

- Inspect all glass surfaces for any defects before starting installation
- If surface preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2. PREPARATION

- Clean surfaces thoroughly prior to installation
- Do not begin installation until substrates have been properly prepared
- Prepare surfaces using the methods recommended by the manufacturer for achieving the best results for the substrate under the project conditions.

3.3. INSTALLATION

- Install it in accordance with the manufacturer's instructions. Installation must be accomplished by a recognized professional installer of film. Completed work must meet IWFA visual acceptance standard.
- Install without ripples, drips, dirt, cuts, tears or gaps exceeding manufacturers tolerances between film and frame.
- Upon completion, the film may have a dimpled appearance from residual moisture. Under normal weather conditions the film will dry flat with no moisture dimples within a period of 30 calendar days.

3.4. CLEANING

- Window film is not to be cleaned for 30 days.
- Solution should be non-acidic with no spot remover added. Use water & couple of drops of baby shampoo / Joy / Palmolive, for example.
- Cleaning solution should NEVER be sprayed directly on the film itself but sprayed onto a high-quality non-abrasive material such as microfiber towel first then clean window film.
- Cleanup project removing cleaning solutions and run-off cleaning water.
- Manufacturers' care and maintenance instructions are available upon request.

3.5. WET GLAZE INSTALLATION

- The wet glaze attachment system such as Dow Corning 995 sealant shall be applied according to the guidelines of the Manufacturer by an Authorized Dealer/Applicator.
- Maintain a minimum 1/2-inch overlap on film and frame (excluding glazing stops) or 3/8-inch depth at bead center for blast mitigation purposes
- Maintain a minimum 3/8-inch overlap on film and frame (excluding glazing stops) or 1/4-inch depth at bead center. for impact resistance or glass retention purposes
- Open cell backer rod may be used to fill the void when gaskets are removed. Alternatively, existing gaskets may be cut back with Architect or Project Leader approval. It is recommended to perform a compatibility test with the wet glaze. This can be requested through the manufacture of the wet glaze product.
- In some instances, the area to be wet glazed may be masked and a tooling knife used to smooth the applied bead to required size. To maximize bead depth, the applied bead should have a triangular profile shape. All tapes used to mask the area should be removed within the working time of the sealant outlined in the product data sheet

3.6. PROTECTION

- Protect installed products until completion of project.
- General contractors will notify other contractors that film is installed and to take care not to damage the film.