(**Specifier Note**: The purpose of this guide specification is to assist the Specifier in correctly specifying bullet resistant aluminum framing assemblies with their installation as security windows.

The Specifier needs to edit this guide specification to fit the needs of each specific project. References have been made within the text of the specification to MasterFormat section numbers and titles. The Specifier needs to coordinate these numbers and titles with sections included for the specific project.

Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Brackets have been used to indicate when a selection is required. Contact an Insulgard representative for further assistance with appropriate product selections)

**SECTION 08 56 53 – SECURITY WINDOWS**

**Insulgard 44/250 Bullet Resistant Sash System**

1. GENERAL
	* + 1. SECTION INCLUDES
				1. Field glazed bullet resistant aluminum windows
			2. ACTION SUBMITTALS
				1. Refer to Section [**01 33 00 Submittal Procedures**] [**Insert section number and title**].
				2. Product Data: For each type of framing [**and glass**] including manufacturer recommended installation instructions.
				3. Shop Drawings: Include plans, elevations, sections, details, attachment to other work [**and glazing details for field-glazed units**].
				4. Samples: For each exposed finish.
			3. INFORMATION SUBMITTALS
				1. Product Test Reports: Indicating compliance with requirements
				2. Warranty: Sample of finish warranty
			4. CLOSEOUT SUBMITTALS
				1. Refer to Section [**01 78 00 Closeout Submittals**] [**Insert section number and title**].
				2. Maintenance data.
			5. DELIVERY, STORAGE AND HANDLING
				1. Refer to Section [**01 60 00 Product Requirements**] [**Insert section number and title**].
				2. Protect “windows” and accessories in accordance with AAMA CW-10 "Care and Handling of Architectural Aluminum from Shop to Site" until Substantial Completion.
			6. WARRANTY

(**Specifier Note**: The 5 year finish warranty applies to the Class I anodic finishes and the 10 year applies to the 70% PVDF coating finish.)

* + - * 1. Finish Warranty: Manufacturer’s warranty against deterioration of factory finishes for the period of [**5**] [**10**] years from the date of Substantial Completion.
1. PRODUCTS

(**Specifier Note**: Product information is proprietary to Insulgard Security Products. If additional products are required for competitive procurement, contact Insulgard, Inc. for assistance in listing competitive products that may be available.)

* + - 1. MANUFACTURED UNITS
				1. Basis of Design: 44/250 Bullet Resistant Sash System by Insulgard Security Products; Phone 800.624.6315; website [www.insulgard.com](http://www.insulgard.com)

Subject to compliance with requirements, manufacturers of products of equivalent design may be acceptable if approved in accordance with [**Section 01 25 00 Substitution Procedures**] [**Insert section number and title**].

* + - * 1. Description

Factory fabricated framing constructed from either 6105-T5 or 6005-T5 extruded aluminum with tensile strength of

Ultimate: 38 ksi minimum

Yield: 36 ksi minimum

Dimensions:

Head, Jamb, and Sill Members: 1-1/2 inches by 2-1/2 inches.

Mullion Members: 3 inches by 2-1/2 inches.

Components:

One piece head and sill extrusions with integral weep at sill

Two piece jamb extrusions with removable faces to allow for reglazing

Three piece mullion extrusions for glazing and lite replacement

* + - 1. PERFORMANCE CRITERIA

(**Specifier Note**: DELETE Ballistic and Blast resistance requirements that are not project specific.)

* + - * 1. Ballistic Resistant:

Level [**1**] [**2**] [**3**] in accordance with UL 752 – Testing for Ballistic Resistance for the complete assembly including framing, glazing and panels.

* + - 1. FABRICATION
				1. Tolerances: All joints and connections shall be tight, providing hairline joints and true alignment of adjacent members
			2. FRAMING FINISH
				1. Factory-applied finish:

(**Specifier Note**: SELECT the project specific finish from the following. Baked Enamel may also be available but may require minimum quantities.)

[**Clear Anodic Finish**]: Architectural Class I, clear coating AA-M10C22A41 Mechanical Finish Chemical Finish: etched, medium matte; 0.70 mils minimum complying with AAMA 611 "Voluntary Specification for Anodized Architectural Aluminum"

[**Color Anodic Finish**]: Architectural Class I, color coating AA-M10C22A42/A44 Mechanical Finish Chemical Finish: etched, medium matte; 0.70 mils minimum complying with AAMA 611 "Voluntary Specification for Anodized Architectural Aluminum".

Color: Dark Bronze.

[**PVDF-Based Coating**]: Fluoropolymer finish containing minimum 70 percent PVDF resins, in accordance with AAMA 2605 “Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Aluminum Extrusions and Panels”

Coats: [**two**] [**three**] [**four**] coat system,

Color: [**Insert color**] [**custom**] [**to be selected from manufacturer's full color range**].

* + - 1. GLAZING

(**Specifier Note**: SELECT glazing based on threat level and architect’s preferences. Armor-Gard products offer glass to the attack side. )

* + - * 1. Level 1: **[1-1/4 inch acrylic] [3/4 inch MP750 Lexgard] [BALULN21 Armor-Gard]**
				2. Level 2: **[1-3/8 inch acrylic] [1 inch MP1000 Lexgard] [BALULN23 Armor-Gard]**
				3. Level 3: **[1-1/4 inch acrylic] [1-1/4 inch SP1250 Lexgard] [BALULN25 Armor-Gard]**
				4. Glazing gaskets:

Interior: Closed cell neoprene (40-50 Shore “A” Durometer)

Exterior: Solid neoprene (65-75 Shore “A” Durometer)

* + - 1. ACCESSORIES
				1. Anchors: Fully concealed manufacturer recommended.
1. EXECUTION
	* + 1. PREPARATION
				1. Verify field dimensions of opening prior to fabrication of framing.
				2. Coordinate structural requirements to ensure proper attachment and support.
			2. INSTALLATION
				1. Install framing in accordance with manufacturer's recommendations and approved shop drawings.
				2. Provide required support and securely fasten and set windows plumb, square, and level without twist or bow.
				3. Apply sealant in accordance with window and sealant manufacturer's recommendations as indicated in installation instructions. Wipe off excess, and leave exposed sealant surfaces clean and smooth
			3. PROTECTION
				1. Clean and protect windows from damage during construction operations. If damage occurs, remove and replace as required to provide windows in their original, undamaged condition.

END OF SECTION