

**TSS BULLET RESISTANT DEFENDER BALLISTIC INSULATED GLASS****PART 1 GENERAL**

## 1.1 REFERENCE

- A. Underwriters Laboratory UL 752-Standard for Bullet Resisting Equipment, ASTM C 1172 - Standard Specification for Laminated Architectural Flat Glass, NIJ Standard 0108.01 - (National Institute of Justice) Standard for Ballistic Resistant Protective Materials (September, 1985).

## 1.2 SUBMITTALS

- A. The following shall be submitted by the manufacturer in accordance with Sections 13070 and any Special Contract Requirements: Submit for approval prior to fabrication: samples, product data (including preparation, storage and installation methods), cuts & anchor spacing, reinforcement & location, product specifications, shop drawings, test reports (current UL Listing Verification & UL 752 Test Results as provided by Underwriters Laboratories), and printed data in sufficient detail to indicate compliance with the contract documents.
- B. Provide manufacturer's instructions for installation and cleaning of TSS Bullet Resistant Defender Insulated Glass. All required submittals shall be approved prior to installation.

## 1.3 DESIGN PERFORMANCE

- A. Through the design, manufacturing techniques and material application the TSS Bullet Resistant Defender Insulated Glass shall be constructed of multiple layers of glass/PVB resin interlayer. With a UL Standard 752 Level 1 rating.
- B. Thickness of glass to range from 15/16" to 1 1/4" thick.

## 1.4 QUALITY ASSURANCE

- A. Manufacturer shall be a Company that specializes in manufacturing products of the specified type with a minimum of five years experience. Installer shall be a Company that specializes in product type specified. Manufacturer shall provide a sample with color/finish to the Architect for approval prior to start of work.

## 1.5 DELIVERY, STORAGE &amp; HANDLING

- A. Delivery the materials to the project with the manufacturer's UL Listed Labels intact and legible. Handle the materials with care to prevent damage. Store materials inside and under cover, stack flat and off floor. Project conditions (temperature, humidity, and ventilation) shall be within the maximum limit recommendations set by manufacturer. Do not install products that are under conditions outside these limits.

## 1.6 WARRANTY

- A. All materials shall be warranted against defects for a period of 1 year from the date of receipt at the project site. Certificates of manufacturer's standard limited warranty shall be provided at project completion.

**PART 2 PRODUCTS**

## 2.1 ACCEPTABLE MANUFACTURERS

- A. Products shall be manufactured by: Total Security Solutions, Inc, 935 Garden Lane, Fowlerville, MI 48836, 800-513-1468. Attn: Sales Department, [info@tssbulletproof.com](mailto:info@tssbulletproof.com). Web: [www.tssbulletproof.com](http://www.tssbulletproof.com). No substitutions shall be accepted.

## 2.2 PRODUCT: BULLET RESISTANT DEFENDER INSULATED SECURITY GLAZING.

- A. Product to be meet UL level 1 protection:

1) TSSIG001 – 1 1/8" to 1 1/4"

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

A. Prior to installing the bullet resistive material, the contractor shall verify that all supports have been installed as required by the contract documents and architectural drawings, and approved shop/CAD drawings, if required. Installer shall notify architect of any unsatisfactory preparation that is responsibility of another installer.

B. Clean and prepare all surfaces per manufacturers recommendations for achieving the best results for the substrate under the project conditions.

### **3.3 POST APPLICATION**

A. Inspection and Cleaning: Verify installation is complete and complies with manufacturer's requirements. Clean product and accessories, removing excess sealant, labels and protective covers.

B. Product Warranty: Applicable warranty shall be issued to owner upon final release of completed project.

*\*\*end of section\*\**