



MAXGUARD
The Source For Physical Security

BULLET RESISTANT FIBERGLASS

PART 1 – GENERAL

1.1 REFERENCE

- A. A.USGBCI (United States Green Building Certification Institute) LEED Standards, Underwriters Laboratory UL 752-Standard for Bullet Resistant Equipment & ASTM E 119-98-Standard Tests Methods for Fire Tests of Building Construction and Materials, National Institute of Justice Standard 0105.01-Standard for Ballistic Resistant Protective Materials (September, 1985), MIL-P-46593A-Numerical Simulation of Ballistic Impact on Composite Laminates, MIL-STD-622F- V50 Ballistic Test for Armor.

1.2 SUBMITTALS

- A. The manufacturer shall submit the following in accordance with Contract Requirements: (prior to fabrication) submit samples, test reports, shop drawings, product specifications, UL Listing and UL752 Current Test Results as provided by Underwriters Laboratory, printed data with sufficient detail to ensure the compliance with contract documents and project requirements. Phenolic content data for fulfillment of renewable materials LEED credits, zero smoke rating data, regional materials data for LEED credits, VOC data. Manufacturer’s instructions for installation of bullet resistant fiberglass.

1.3 DESIGN

- A. Through the design, manufacturing technique and material application the Bullet Resistant Fiberglass shall be of the “non-ricochet type”. This design is intended to permit the encapture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration. This design is also intended for energy and environmentally efficient accreditation. This product has a zero smoke rating due to the use of phenolic base resin and it does not produce toxic fumes in the case of fire or explosion, which makes the product beneficial for design purposes on buildings that may be exposed to various threats.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver the material to the project with the manufacturer’s labels, designations, and data intact and legible. Handle the material with care to prevent damage and ensure functionality. Store the materials inside and under cover, stack flat and off the floor. Store materials under the environmental recommendations of the manufacturer.



1.5 WARRANTY

- A. All materials and workmanship shall be warranted against defects for a period of 1 (one) years from the date of receipt at the project site.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. A product shall be manufactured by: MaxGuard LLC. 220 Newport Coast Dr #11-591 Newport Beach Ca. 92660. Tel: (800) 432-3079 website: <http://maxguardllc.com>
No substitutions shall be accepted.

2.2 BULLET RESISTANT PHENOLIC BASED MATERIAL (FIBERGLASS)

- A. Product consists of multiple plies of various fibers impregnated with phenolic resins and laminated under heat and pressure to produce flat rigid sheets of a thermoset composite. The production technique and materials used shall provide the controlled internal delamination to permit the encapture of a penetrating projectile. Based on the phenolic properties, this product offers thermal, mechanical isolation, and thermal and electrical insulation properties

2.3 SECURITY LEVEL

- A. The Bullet Resistant Fiberglass will be certified to be tested to meet UL752 levels 1, 2, and 3

2.4 FIRE RATING

- A. ASTM-084 rated Class 1A.

PART 3 – EXECUTION

3.1 SUPPORTING ELEMENTS AND CONTRACT DOCUMENTS

- 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 the architectural drawings as well as the approved shop drawings.

3.2 INSTALLATION

- A. Do not begin installation until openings have been verified and surfaces properly prepared in accordance with Drawings. Prepare all surfaces per recommendations of manufacturer. Install in accordance with manufacturer's instructions and UL 752.



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3.3 JOINTS

- A. All joints shall be reinforced by a back-up layer of bullet resistive material. The bullet resistance of the joint, as reinforced, shall be at least equal to that of the panel. Minimum width of reinforcing layer shall be 4" (2" on each panel) or a 2" overlap minimum.

3.4 APPLICATION

- A. Bullet resistant material shall be installed in accordance with the manufacturer's printed recommendations. Material panels shall be adhered using an industrial adhesive, mastic, screws or bolts. Method of application shall maintain the bullet resistive rating at junctures with the concrete floor slab, the concrete roof slab, the bullet resistive doorframes, the bullet resistive window frames, and all required penetrations. Perform clean-up and inspection of all work.

END OF SECTION