



"Protecting People and Property"

BULLET, BLAST, AND FORCED ENTRY RESISTANT SYSTEMS

USAD 1000 SERIES BULLET / BLAST / FORCED ENTRY RESISTANT ALUMINUM DOOR SHORT FORM GUIDE SPECIFICATION

The USAD1000 Door is a Bullet, Blast and Forced Entry Resistant Aluminum Door and Frame System capable of withstanding extremely high blast pressures and can provide the full range of ballistic protection. Forced Entry Protection can also be provided to meet ASTM requirements. It is available in single, double, or sliding door configurations. The doors are shipped factory glazed and pre-hung. All doors are custom made and can be fitted with a wide range of hardware, security and building access options.

SECTION 08390 BLAST AND BULLET RESISTANT DOORS

PART 1 GENERAL

1.01 Work Included

- A. Furnish and install Bullet/Blast/Forced Entry Resistant Aluminum Doors and Frames complete with all required hardware and related components as shown on drawings and as specified in this section.
- B. All doors shall be United States Bullet Proofing USAD 1000 Series. Other manufacturers requesting approval to bid alternate products as equal must submit, at least 10 days prior to bid date, information as required by Section 01600 of these specifications, establishing the alternate product as an equal to the specified product, in respect to the performance, testing and all other criteria as noted in this specification and associated drawings and plans.
- C. The Bullet/Blast/Forced Entry Resistant Aluminum Doors shall be shipped factory glazed and pre-hung in a Bullet/Blast/Forced Entry Resistant Aluminum Frame.

1.02 Related Work

1.03 Items Furnished But Not Installed

- A. Bolts and anchors necessary to comply with blast analysis performed in Section 1.05.B.

1.04 Items Installed But Not Furnished

1.05 Testing and Performance Requirements

- A. Ballistic Testing
 1. Testing shall conform to UL-752, Standard for Bullet Resisting Equipment. For this application all components shall meet or exceed the requirements of UL 752 Level_____.
(Note to specifier: Insert desired protection Level 1-8).

Or use the following for NIJ Standard:

1. Testing shall conform to National Institute of Justice (NIJ) Standard 0801.01 for Ballistic Resistant Protective Materials. For this application all components shall meet or exceed the requirements of NIJ Level_____.
(Note to specifier: Insert desired protection Level I - IV, see www.usbulletproofing.com/Ratings.htm for a complete explanation of the rating standards).

2. All aluminum members shall have ballistic improvements so as to provide complete protection against penetration of a projectile as described by UL 752 (or NIJ 0801.01).

3. Ballistic Testing shall be conducted by H.P. White Laboratory (or an approved equivalent independent testing laboratory).

4. Proof of certification shall be made available if requested.

Or if Ballistic Certification is not required:

1. Ballistic Protection is not required for this application.

B. Blast Certification

1. Unit shall be blast approved in accordance with GSA blast criteria Level C (4 psi) or Level D (10 psi). *(Note to specifier: Select desired level. If greater protection is required, contact United States Bullet Proofing at 800-363-8328).*

2. Blast testing shall be conducted on a test specimen by an independent blast testing facility. Proof of certification shall be made available upon request.

3. Analysis shall be performed for each application of this door to ensure the door and frame system is properly anchored to structure. Provide analysis upon request.

Or if Blast Certification is not required:

1. Blast Protection is not required for this application.

C. Forced Entry Resistance

1. Glazing material shall be certified to meet or exceed ASTM F 1233 Class _____ for Forced Entry Resistance. *(Note to specifier: Enter I, II, III or IV depending on level desired).*

2. The swinging door assembly shall be tested to ASTM F 476 Grade _____. *(Note to specifier: Enter 10, 20, 30, or 40 depending on level desired).*

Or if Forced Entry Certification is not required:

1. Forced Entry Protection is not required for this application.

1.06 Quality Assurance

- A. Manufacturer must have a minimum five (5) years documented experience manufacturing products specified in this section.
- B. Provide test reports from nationally recognized testing laboratories, as required, certifying the performance requirements specified in Section 1.05 when requested.
- C. Drawings and specifications are based on

United States Bullet Proofing Model USAD 1000 Bullet/Blast/Forced Entry Door System. Whenever substitute products are to be considered, supporting technical literature, samples, drawings and performance data must be submitted ten days prior to bid in order to make a valid comparison of products involved.

D. During production of these doors, the manufacturer shall make his facilities available for inspection by representatives of the owner to verify compliance with drawings and specifications.

E. The manufacturer shall maintain on staff, a professional engineer, licensed by at least one of the fifty states.

1.07 References

1.08 Submittals

- A. Submit under provisions of Section 01300.
- B. Shop Drawings – The manufacturer shall provide complete shop drawings for owner/architect review and approval prior to fabrication. Dimensions, hardware options, color and quantity shall be indicated.
- C. Quality Assurance Submittals. Submit as requested per Section 1.05

1.09 Delivery Storage and Handling

- A. Each Bullet/Blast/Forced Entry Resistant Aluminum Door shall be securely crated to prevent damage during shipment. Each box shall be marked with the identification of the unit and the shipping address. The weight and cubes shall be indicated. Each box shall be marked with “Up” arrows, indicating how the box it to be transported and stored.
- B. Crated Doors shall not be stored for long periods of time. If long storage is unavoidable due to delay in construction schedules, the crated doors shall be placed in a dry warehouse with moderate temperatures. (High temperatures and humidity can cause formation of vapor inside the wrapping, resulting in oxidation or corrosion of parts).

- C. All boxes shall be placed in the upright position as indicated by the up arrows. They shall not lean against a wall. The boxes shall not be placed in close proximity of new cement or plaster walls. In the event that water penetrates the storage space, the units shall be unboxed to prevent internal damage.

1.10 Warranties

- A. Bullet/Blast/Forced Entry Resistant Aluminum Doors
 - 1. All necessary replacement of parts and adjustments not occasioned by accident or misuse shall be made at the vendor's expense when notified within 30 days after customer receipt of product. All products are warranted for a period of one year from the date of customer receipt. During warranty period, all defects not caused by attack, accident or misuse through fault or negligence by the customer shall be adjusted or replaced at the vendor's expense (excluding transportation costs).
- B. Total Door System
 - 1. The contractor shall assume full responsibility and warrant for one year the satisfactory performance of the total door and frame installation which includes that of the door, frame, hardware, glass, glazing, anchorage and setting system, sealing, flashing, etc, as it relates to air, water and structural adequacy as called for in the specifications and approved shop drawings.
 - 2. Any deficiencies due to such elements not meeting the specifications shall be corrected by the contractor at his expense during the warranty period.

PART 2 PRODUCTS

2.01 Material

- A. Aluminum
 - 1. All aluminum extrusion shall be 6063T5 alloy and temper or equal or with a minimum tensile strength of 22.0 ksi and a yield strength of 16.0 ksi.
- B. Fasteners
 - All fasteners shall be zinc coated. There shall be no exposed fasteners.
- C. Gasket Material

1. Rubber - The glazing gasket material shall be a composition of Thermoplastic Elastomer (TPE 65AB) and Polyolefin Foam Concentrate. (Resulting in a 55 to 65 Shore "A" durometer).

2. Tape – Double-faced vinyl glazing tape shall be tested and approved to AAMA 810.1-92 expanded cellular glazing tapes.

3. Silicone – Structural silicone sealant shall comply with ASTM C920-02.

D. Glass and Glazing

1. The framing system shall be capable of accepting various thicknesses, ranging from 1/4" to 2 3/16", thus allowing for further upgrades of ballistic and blast protection.

2. The glazing supplied shall have a UL 752 rating of Level _____ as certified by an independent testing laboratory. *(Note to specifier: Fill in desired protection level).*

OR:

2. The glazing supplied shall have a NIJ Standard 0801.01 rating of _____ as certified by an independent testing laboratory. *(Note to specifier: Fill in desired protection level).*

3. The glazing shall be _____
(Note to specifier: Glazing is available in glass clad poly-carbonate, polycarbonate, all glass, and thermally insulated glass).

4. Glazing shall be installed to achieve a _____ view. *(Note to specifier: Views available are Full, Half, Double or Opaque).*

E. Hardware

1. Hinges – Select Heavy Duty Concealed Continuous Hinge shall be used. Surface mounted hinges are not acceptable.

2. Locks – Locking mechanism shall be: _____
(Note to specifier: Numerous locking mechanisms are available, Adams Rite Deadbolt with Medeco Cylinder is standard – contact factory at 800-363-8328 for information).

3. Closers – All doors shall have an _____ closer. *(Note to specifier: An*

LCN4041 surface mounted closer is standard, concealed LCN 3031 overhead closers are also available).

4. Automatic Operators – A _____ automatic operator shall be installed. (Note to specifier: Numerous operators are available to include surface mounted and concealed options – contact factory at 800-363-8328 for information).

5. Magnetic Locks – Each door shall be constructed with a MagLock with _____ pounds shear capacity.

6. Panic Device – A _____ panic device shall be installed. (Note to specifier: Numerous panic devices are available to include rim and vertical rod panics – contact factory at 800-363-8328 for information).

7. Building Security / Access System Hardware – (Note to specifier: List all special hardware requirements that must be integrated into Door/Frame system during construction).

2.02 Fabrication

A. General

1. All aluminum frames shall have a minimum wall thickness of 0.125 inches.

2. All fasteners shall be concealed on the unexposed sides of the frame. The visible front and back portions of the frame shall have a smooth appearance.

B. Frame

1. Frame size shall be 2 ½" W x 4 ½" D standard.

2. Install all necessary hardware as specified in 2.01.E.

3. All joints and connections shall be tight providing hairline joints and true alignment of adjacent members.

C. Door

1. Size – 3' x 7' standard. (Note: Custom sizes available).

2. Door Stiles shall be _____. (Narrow (3") or Monumental (5 5/16")).

3. Thickness – 2 ¾".

D. Glazing

Units shall be factory glazed utilizing the Gasket Material noted in 2.01.C.

E. Lights (Optional)

1. (Note: Sidelights or Transom Lights may be specified for incorporation with the USAD 1000).

D. Finish

1. Anodic

a. Finish all exposed areas of Bullet/Blast Resistant Aluminum Doors and components with electrolytically deposited color in accordance with Aluminum Association designation:

AA-_____

Select from Below:

Clear AA-M12-C22- AAMA 607.1

Anodized A31/41

Bronze AA-M12-C22- AAMA 608.1

Anodized A34/44

Color shall be: _____

2. Organic

a. Finish all exposed areas of Bullet/Blast Resistant Aluminum Doors and components with:

Select from Below:

70% Kynar-Base AA-M10- AAMA 2605

Duramar or C41-R1X ASCA 96

Fluoropon

Siliconized AA-M10- AAMA 2603.

Polyester Baked C41-R1X

Enamel

Color shall be: _____

(Note that if custom color is desired, a color sample will be required for color-matching. For a complete summary of Architectural Coatings available, see <http://www.paintandcolor.com/pac/extr.jsp>).

PART 3 EXECUTION

3.01 Installation

A. Bullet/Blast/Forced Entry Resistant Aluminum Doors shall be installed and adjusted by experienced personnel in accordance with approved shop drawings, specifications and manufacturer's instructions.

- B. All items in this section shall be set in their correct location and shall be set level, square, plumb and at proper elevations and in alignment with other work.
- C. Special care shall be taken by the installer to ensure that impact side of the door faces the threat axis.

END OF SPECIFICATION