

# Overhead Door Brand, Model 610F Rolling Steel Storm Shelter Door

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# PART 1 GENERAL

## 1.1 SECTION INCLUDES

A. Rolling steel storm shelter doors.

## 1.2 RELATED SECTIONS

- A. Section 05 50 00 Metal Fabrications.
- B. Section 06 20 00 Finish Carpentry.
- C. Section 08 33 00 Coiling Doors and Grilles.
- D. Section 08 71 00 Door Hardware.
- E. Section 09 90 00 Painting and Coating.
- F. Section 26 27 16 Electrical Cabinets and Enclosures.
- G. Section 26 05 00 Common Work Results for Electrical.

#### 1.3 REFERENCES

- A. ANSI/DASMA 108 American National Standards Institute Standard Method For Testing Sectional Garage Doors And Rolling Doors: Determination Of Structural Performance Under Uniform Static Air Pressure Difference.
- B. NFRC 102 Test Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems.
- C. ASTM E 90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Element.
- D. ASTM E 330 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- E. ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

- F. ASTM A 666 Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- G. ASTM A 924 Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
- H. ASTM B 221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- ASTM F 3038 Standard Test Method for Timed Evaluation of Forced-Entry-Resistant Systems
- J. NEMA 250 Enclosures for Electrical Equipment (1000 Volts Maximum).
- K. NEMA MG 1 Motors and Generators.
- L. NIJ Standard 0108.01 Ballistic Resistant Protective Materials
- M. NFPA 252 Fire Tests of Fire Door Assemblies.
- N. UL 10B Fire Tests of Fire Door Assemblies.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.
- B. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Details of construction and fabrication.
  - 4. Installation instructions.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, anchoring methods, required clearances, hardware, and accessories. Include relationship with adjacent construction.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- G. Operation and Maintenance Data: Submit lubrication requirements and frequency, and periodic adjustments required.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
  - 3. Refinish mock-up area as required to produce acceptable work.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weathertight location.

## 1.8 PROJECT CONDITIONS

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

## 1.9 COORDINATION

A. Coordinate Work with other operations and installation of adjacent materials to avoid damage to installed materials.

## 1.10 WARRANTY

A. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 10,000 cycles, whichever occurs first.

## B. PowderGuard Finish

- 1. PowderGuard Premium Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Premium Finish warranty for 2 years.
- 2. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Premium applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.
- 3. PowderGuard Textured: Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Textured Finish warranty for 3 years.
- 4. PowderGuard Zinc Base Coat applied to guides, bottom bar, headplates plus PowderGuard Textured applied to curtain and top coat for guides, bottom bar, headplates: Manufacturer's limited Zinc Finish warranty for 4 years.
- 5. PowderGuard Max: Applied to curtain, guides, bottom bar, headplates: Manufacturer's limited Max Finish warranty for 5 years.

## PART 2 PRODUCTS

# 2.1 MANUFACTURERS

A. Acceptable Manufacturer: Overhead Door (tm) Brand, which is located at: 2501 S. State

Hwy. 121 Suite 200; Lewisville, TX 75067; Toll Free Tel: 800-275-3290; Tel: 469-549-7100; Fax: 972-906-1499; Email: request info (info@overheaddoor.com); Web: https://www.overheaddoor.com

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 Product Requirements.

#### 2.2 ROLLING STEEL STORM SHELTER DOORS

- A. Overhead Door Brand, Model 610F Rolling Steel Storm Shelter Door
  - Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf.
    - a. Maximum Tested Size = 16ft Width x 16ft Height
  - 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
    - a. Slat Profiles/Material:
      - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
        - a) 12-gauge G40 galvanized steel.
  - 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
    - a. Steel.
  - 4. Guides:
    - a. Three structural angle guide assembly fabricated of:
      - Steel
    - b. Provide with integral windlock bars and removable bottom bar stops.
  - 5. Brackets: Design to enclose ends of coil and provide support for counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings. Thickness shall be:
    - a. 3/16 inch minimum.
    - b. 1/4 inch minimum.
  - 6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
  - 7. Hood: Hood to enclose curtain coil and counterbalance mechanism. Hood fabricated of sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness. Provide with a steel hood baffle. Fabricate of:
    - a. Minimum 24-gauge galvanized steel.
  - 8. Finish:
    - a. Galvanized Steel: Powder Coat.
      - 1) PowderGuard Premium powder coat, color as selected by the Architect.
    - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
  - 9. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second..
    - a. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
    - b. Operator Controls:
      - 1) Push-button operated control stations with open, close, and stop buttons.
      - 2) Key operation with open, close, and stop controls.
      - Push-button and key operated control stations with open, close, and stop buttons.
      - 4) Controls for interior location.

- 5) Controls for exterior location.
- 6) Controls for both interior and exterior location.
- 7) Controls surface mounted.
- 8) Controls flush mounted.
- c. Special Operation:
  - 1) Vehicle detector operation.
  - 2) Radio control operation.
  - 3) Card reader control.
  - 4) Photocell operation.
  - 5) Door timer operation.
  - 6) Commercial light package.
  - 7) Explosion and dust ignition proof control wiring.
  - 8) Motor Voltage:
    - a) 115/230 single phase, 60 Hz.
    - b) 208/230 three phase,
    - c) 460 three phase;
- 10. Locking:
  - a. Chain keeper locks for chain hoist operation.
  - b. Interior slide bolt lock for electric operation with interlock switch.
  - c. Cylinder lock.
- 11. Mounting: Face of Wall.

## PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify opening sizes, tolerances and conditions are acceptable.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

#### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install rolling steel storm shelter doors in accordance with the manufacturer's instructions and CC 500-2014.
  - Anchors used to install impact-protective systems require a special inspection to verify compliance with the required design information listed in Section 106.2.1 of CC 500-2014
  - 2. Contractors who install the assembly shall acknowledge their responsibility by submitting a written statement to the authority having jurisdiction.
- C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- D. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.

- E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- F. Coordinate installation of electrical service with Section 26 05 00 Common Work Results for Electrical. Complete wiring from disconnect to unit components.
- G. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 90 00 Joint Protection.
- H. Install perimeter trim and closures.
- I. Instruct Owner's personnel in proper operating procedures and maintenance schedule.

## 3.4 ADJUSTING

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

# 3.5 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

# 3.6 PROTECTION

A. Protect installed products until completion of project.

END OF SECTION