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Wisconsin
Department of Commerce

Evaluation #

200717-D (Replaces 990014-D)

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53701-2658

Wisconsin Building Products Evaluation

Material

Automatic Closing Fire and/or Security Door Assemblies

Manufacturer

WON-DOOR Corporation
1865 South 3480 West
Salt Lake City, Utah 84104

SCOPE OF EVALUATION

GENERAL: The Won-Door FireGuard FG-20, -60, -90, and -180 automatic closing fire door assemblies manufactured by Won-Door Corporation have been evaluated for compliance with the requirements of the current edition of the Wisconsin Enrolled Commercial Building Code.

The IBC requirements below in accordance with the current **Wisconsin Amended ICC Code:**

- **Firewall Opening Protection:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 705.8.**
- **Penetrations through Fire Barriers:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 706.7.**
- **Openings in Fire Partitions:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 708.6.**
- **Openings in Smoke Barriers:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 709.5.**
- **Openings in Smoke Partitions:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 710.5.2.**
- **Alternative Methods for Determining Fire Protection Ratings:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 715.3.**
- **Fire Door and Shutter Assemblies:** The Won-Door FireGuard FG-60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 715.4.**
- **Horizontal Sliding Doors as a Means of Egress:** The Won-Door FireGuard FG-20, -60, -90, and -180 automatic closing fire door assemblies have been evaluated in accordance with **s. IBC 1008.1.3.3.**

DESCRIPTION AND USE

Fire Guard is an electrically operated, accordion type, automatic sliding door assembly consisting of a door assembly controller, emergency power supply, drive motor assembly and door assembly. The door assemblies may be installed as a fire door, as a security door or provide both security and fire protection.

1. Fire Door Installation.

The fire door is designed so that when properly installed and interconnected with an approved smoke detector, it will automatically close upon activation of the smoke detector. The doors may be retracted manually to allow for escape or access. When released, the doors automatically close again. When provided with the optional control switch, the fire door assembly can be closed or opened for normal use.

2. Security Door Installation (no fire protection)

The door is closed by means of a key-switch. An electromagnetic brake will automatically engage when the door is closed and will hold the lead post in place and resist a force of 450 pounds. Upon a signal from the smoke detector system or manual fire alarm system, the brake will release and the door will retreat into the stacked position, leaving the full width opening for egress.

3. Combination Fire/Security Door Installation.

The door is closed by means of a key-switch. An electromagnetic brake engages automatically when the door is closed. Upon a signal from the smoke detector system or the manual fire alarm system, the brake will release but the door will stay in the extended position providing fire protection. Egress hardware will allow the doors to be retracted manually for egress or access from either side. When released, the doors automatically close again.

The door assembly controller is capable of re-transmitting both alarm and trouble signals to the building manual fire alarm system. The exit hardware of security doors may be programmed to operate from only one face of the door while in the security mode. This allows exiting from one side of the door while the other side remains locked.

When the doors are installed as security doors with locking devices, the entire building shall be equipped with an automatic smoke detector system or manual fire alarm system in accordance with NFPA 72. Smoke detectors or manual fire alarm system pull stations shall be placed on each side of the locking door. The activation of any of the smoke detectors fire alarm pull stations shall unlock the security/fire doors.

Four models are available as follows:

Fireguard 20 is a smoke and draft control assembly rated for 20 minutes.

Fireguard 60 is a 1-hour rated door.

Fireguard 90 is a 1-1/2-hour rated door.

Fireguard 180 is a 3-hour rated door.

All models are either wall-attached or equipped with a rated floating-jamb board assembly. All models are approved for use in either a single or bi-parting configuration.

TESTS AND RESULTS

The doors were fire tested by Underwriters Laboratories, Inc., in accordance with UL 10B and ASTM E152. The Underwriters Laboratories fire classification label indicating manufacturer, testing agency and time rating appears on each door assembly up to a maximum area of 120 square feet with no dimension exceeding 12 feet.

Folding fire doors intended for the protection of openings in excess of 120 square feet which comply with the Follow-up Procedure and any other applicable requirements of Underwriters Laboratories, Inc., will be eligible for "Certificate Service" or "Oversized Labeling Service/" Under this "Service," each oversized door is to be supplied with a "Certificate of Inspection" which will include the applicable fire rating and indicate that it is built identical to labeled doors except for the size. In addition, the door will bear the name of the manufacturer, "The Won-Door Corporation" or "R6799."

LIMITATIONS OF APPROVAL

The IBC limitations below are in accordance with the current Wisconsin Amended ICC Code:

- The sliding door may be used as exit door, a fire door or a security door in any type of construction in lieu of a swing type door because it automatically opens when a handle on the leading edge of the door is pushed.
- The use of combustible materials in headers shall be limited to applications where combustible rated assemblies are allowed.
- The FireGuard doors and frames shall be installed in accordance with the manufacturer's published instructions and this evaluation report. Where there is a conflict between the two, this report shall govern.
- Installation of the door systems, including the frame, closing and release devices, and anchorage must be in accordance with NFPA 80, s. IBC 715.3, s. IBC 715.4 and s. IBC 1008.1.3.3 as applicable.
- **Oversized Doors:** Where a fire-resistance rating is required, doors with a length exceeding 12 feet or a height exceeding 10 feet may be installed when **approved** by the code official. A certificate of inspection from an approved testing agency shall be submitted as noted in s. IBC 715.4.5.2.

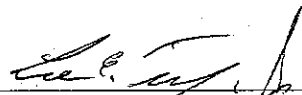
This approval will be valid through December 31, 2012, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:

Approval Date: November 13, 2007 By:



Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau