



DASMA
Door & Access Systems
Manufacturers Association
International

COMMERCIAL & RESIDENTIAL GARAGE DOOR DIVISION

TECHNICAL DATA SHEET

#186

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Vehicular Access Doors and the Wildland-Urban Interface

Introduction

A wildland-urban interface (WUI) is defined as that geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels. A wildland is defined as an area in which development is essentially nonexistent, except for roads, railroads, power lines and similar facilities.

As individuals and businesses continue to build near wildlands, the number of WUI communities is steadily accelerating. Because of the concern about the risk to life and structures from intrusion of fire from wildlands, and structure fires adjacent to wildlands spreading to such areas, specific building codes have been developed. This Technical Data Sheet highlights language from such codes as applicable to vehicular access doors.

Applicable Model Code

The International Code Council (ICC) has published the International Wildland-Urban Interface Code (IWUIC.) Through and including the 2018 edition, "vehicle access doors" are exempt from the exterior door requirements for both Class 1 (extreme fire hazard; Section 504) and Class 2 (high fire hazard; Section 505) ignition resistant construction. Class 3 (moderate fire hazard) ignition resistant construction does not address exterior doors. Classes are regardless of structure type.

Model Codes versus Adopted Codes

As a reminder, a code is not enforceable unless it has been adopted by a state or local municipality. An adopted code may or may not use a model building code, in this case the IWUIC, as a base document. Municipalities may also adopt revisions to a model code, using such code as a base document.

California Building Code Requirements

General

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This Technical Data Sheet was prepared by the members of DASMA's Commercial & Residential Garage Door Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

Wildland-urban interface code requirements in California do not use the IWUIC as base requirements. Specifically, California code requirements for exterior doors do not contain an exemption for "vehicle access doors". Code references below are in the 2016 California Building Code Part 2, Volume 1.

Exterior doors, Section 708A.3

Exterior doors are required to comply with one of the following:

1. Have an exterior surface or cladding composed of noncombustible or ignition-resistant material. The code official must approve the garage door construction as noncombustible. Cal Fire staff has clarified that metal of any thickness covering insulation in a door section meets the intent of this alternative. Ignition-resistant material must be documented as fire retardant.
2. Be constructed of solid core wood where stiles and rails shall not be less than 1 3/8" thick and raised panels shall not be less than 1 1/4" thick except for the exterior perimeter of the raised panel that may taper to a tongue not less than 3/8" thick. These are prescriptive requirements for wood, but do not address insulated doors with wood facings.
3. Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252. The door manufacturer should provide evidence of testing if compliance with this provision is chosen.
4. Be tested to meet the performance requirements of SFM Standard 12A-7-1. The standard, specific to California, is a test method for exterior wall siding and sheathing. Test procedures are similar to the "corner burn test" in ANSI/DASMA 107; however, the test procedure is more severe than the DASMA standard and the acceptance criteria differs.

Door Glazing, Section 708A.2.1

Glazing in doors is required to comply with one of the following:

1. Be constructed of multi-pane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing. Since the requirements are most likely similar to those in the International Building Code because Federal regulations govern safety glazing, see DASMA TDS-158 for more information.
2. Be constructed of glass block units. Because the thickness may not be compatible with typical garage door thickness ranges, employing glass block may not be a practical means of complying.

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3. Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257. The referenced standard prescribes fire and hose stream test procedures that apply to fire window assemblies, intended for use in window openings to retard the spread of fire through openings in fire-resistive walls.
4. Be tested to meet the performance requirements of SFM 12-7A-2. The referenced standard is a test involving direct flame exposure to an exterior window.

Perimeter Gap

In the wildland-urban interface provisions of the California Building Code, Section 708A.4 (titled “Garage Door Perimeter Gap”) states that exterior garage doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the bottom, sides, and tops of doors, from exceeding 1/8-inch (3.2 mm).

Gaps between doors and door openings are required to be controlled by one of the following methods:

1. Weather stripping products made of materials that: (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2000 hours, where the maximum allowable difference in tensile strength values between exposed and non-exposed samples does not exceed 10%, and (b) exhibit a V-2 or better flammability rating when tested to UL 94, Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
2. Door overlaps onto jambs and headers.
3. Garage door jambs and headers covered with metal flashing.

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Sources: www.osfm.fire.ca.gov for SFM 12-7A-2
www.iccsafe.org for obtaining the IWUIC
www.nfpa.org for obtaining NFPA 257
www.bsc.ca.gov for the latest edition of the California Building Code

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