using a 2.2lb (1kg) burning "Class A" size 12" x 12" x 2.25" (300 mm x 300 mm x 57 mm) roof test brand.

SFM Standard 12-7A-4A, *Decking Alternate Method A. A heat release rate deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3-minute duration.*

SFM Standard 12-7A-5, *Ignition-resistant Material. A generic building material surface burning flame spread test standard consisting of an extended 30 minute ASTM E84 or UL 723 test method as is used for fire-retardant-treated wood.*

ASTM D2898 *Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.*

ASTM D3909/D3909M *Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules.*

ASTM E84 *Standard Test Method for Surface Burning Characteristics of Building Materials.*

ASTM E2632/E2632M *Standard Test Method for Evaluating the Under-Deck Fire Test Response of Deck Materials.*

ASTM E2707 *Standard Test Method for Determining Fire Penetration of Exterior Wall Assemblies Using a Direct Flame Impingement Exposure.*

ASTM E2726/E2726M *Standard Test Method for Evaluating the Fire Test Response of Deck Structures to Burning Brands.*

ASTM E2886/E2886M *Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement.*

ASTM E2957 *Standard Test Method for Resistance to Wildfire Penetration of Eaves, Soffits and Other Projections.*

NFPA 257 *Standard on Fire Test for Window and Glass Block Assemblies.*

UL 723 *Standard for Test for Surface Burning Characteristics of Building Materials.*

SECTION 704A
IGNITION-RESISTANT CONSTRUCTION

704A.1 General. *The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.*

704A.2 Ignition-resistant materials. *Ignition-resistant materials shall comply with one of the following:*

1. *The requirements in Section 704A.3 when tested in accordance with the test procedures set forth in ASTM E84 or UL 723,*
2. *The test procedures and requirements set forth in SFM Standard 12-7A-5 "Ignition-Resistant Material", or*
3. *One of the alternative methods in Section 704A.4.*

704A.3 Conditions of acceptance for ignition-resistant material tested in accordance with ASTM E84 or UL 723. *A material shall comply with the conditions of acceptance in Items 1 and 2 below when the test is continued for an additional 20-minute period, meaning for a total test period of an "extended" 30-minute test period.*

1. *The material shall exhibit a flame spread index not exceeding 25 and shall show no evidence of progressive combustion following the extended 30-minute test period.*
2. *The material shall exhibit a flame front that does not progress more than 10 1/2 feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test period.*

704A.4 Alternative methods for determining ignition-resistant material. *Any one of the following shall be accepted as meeting the definition of ignition-resistant material:*

1. *Noncombustible material. Material that complies with the definition for noncombustible materials in Section 202.*
2. *Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of Section 2303.2.*
3. *Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in Section 1505.6 and listed by State Fire Marshal for use as "Class B" roof covering, shall be accepted as an ignition-resistant wall covering material when installed over solid sheathing.*

SECTION 705A
ROOFING

705A.1 General. *Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.*

705A.2 Roof coverings. *Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to resist the intrusion of flames and embers, be firestopped with approved materials or have one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909 installed over the combustible decking.*

705A.3 Roof valleys. *Where valley flashing is installed, the flashing shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909, at least 36-inch-wide (914 mm) running the full length of the valley.*

705A.4 Roof gutters. *Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.*

SECTION 706A
VENTS

706A.1 General. *Where provided, ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation shall be in accordance with Section 1203 and Sections 706A.1*

through 706A.3 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.

706A.2 Requirements. *Ventilation openings for enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, and underfloor ventilation openings shall be fully covered with metal wire mesh, vents, other materials or other devices that meet one of the following requirements:*

1. *Vents shall be listed to ASTM E2886 and comply with all of the following:*
   - 1.1. *There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.*
   - 1.2. *There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.*
   - 1.3. *The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).*
2. *Vents shall comply with all of the following:*
   - 2.1. *The dimensions of the openings therein shall be a minimum of $^1/_{16}$-inch (1.6 mm) and shall not exceed $^1/_8$-inch (3.2 mm).*
   - 2.2. *The materials used shall be noncombustible.*

     Exception: *Vents located under the roof covering, along the ridge of roofs, with the exposed surface of the vent covered by noncombustible wire mesh, may be of combustible materials.*
   - 2.3. *The materials used shall be corrosion resistant.*

706A.3 Ventilation openings on the underside of eaves and cornices. *Vents shall not be installed on the underside of eaves and cornices.*

Exceptions:

1. *Vents listed to ASTM E2886 and complying with all of the following:*
   - 1.1. *There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.*
   - 1.2. *There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.*
   - 1.3. *The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).*
2. *The enforcing agency shall be permitted to accept or approve special eave and cornice vents that resist the intrusion of flame and burning embers.*
3. *Vents complying with the requirements of Section 706A.2 shall be permitted to be installed on the underside of eaves and cornices in accordance with either one of the following conditions:*
   - 3.1. *The attic space being ventilated is fully protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or,*
   - 3.2. *The exterior wall covering and exposed underside of the eave are of noncombustible materials, or ignition-resistant materials, as determined in accordance with SFM Standard 12-7A-5 Ignition-Resistant Material and the requirements of Section 704A.3, and the vent is located more than 12 feet (3.66 m) from the ground or walking surface of a deck, porch, patio or similar surface.*

SECTION 707A
EXTERIOR COVERING

707A.1 Scope. *The provisions of this section shall govern the materials and construction methods used to resist building ignition and/or safeguard against the intrusion of flames resulting from small ember and short-term direct flame contact exposure.*

707A.2 General. *The following exterior covering materials and/or assemblies shall comply with this section:*

1. *Exterior wall covering material.*
2. *Exterior wall assembly.*
3. *Exterior exposed underside of roof eave overhangs.*
4. *Exterior exposed underside of roof eave soffits.*
5. *Exposed underside of exterior porch ceilings.*
6. *Exterior exposed underside of floor projections.*
7. *Exterior underfloor areas.*

Exceptions:

1. *Exterior wall architectural trim, embellishments, fascias, and gutters.*
2. *Roof or wall top cornice projections and similar assemblies.*
3. *Roof assembly projections over gable end walls.*
4. *Solid wood rafter tails and solid wood blocking installed between rafters having minimum dimension 2 inch (50.8 mm) nominal.*
5. *Deck walking surfaces shall comply with Section 709A.4 only.*

707A.3 Exterior walls. *The exterior wall covering or wall assembly shall comply with one of the following requirements:*

1. *Noncombustible material.*
2. *Ignition-resistant material.*
3. *Sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks splined, tongue-and-groove, or set close together and well spiked.*
4. *Log wall construction assembly.*
5. *Wall assemblies that have been tested in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707 with the conditions of acceptance shown in Section 707A.3.1.*
6. *Wall assemblies that meet the performance criteria in accordance with the test procedures for a 10-minute*