## PLASTIC

## 780 CMR 2601.0 GENERAL

**2601.1 Scope**: The provisions of 780 CMR 26 shall govern the design, construction and quality of light-transmitting *plastic* materials and foam plastics. 780 CMR 2601.0 shall apply to all light-transmitting *plastic* materials and foam plastics. 780 CMR 2603.0 shall only apply to foam plastics. 780 CMR 2604.0 through 2608.0 shall only apply to light-transmitting *plastic* materials.

**2601.2 Approved materials**: The use of all *plastics* that conform to the strength, durability, sanitary and fireresistive requirements of this code and ASTM D635, D1929, D2843 and E84 listed in *Appendix A*, shall be permitted subject to the limitations of 780 CMR 26.

**2601.3 Application for approval**: Applicants for approval of a *plastic* material shall furnish, in accordance with 780 CMR 1704.0 all necessary technical data required by the code official. The data shall include, if necessary: chemical composition; applicable physical, mechanical and thermal properties, such as fireresistance, flammability and flame spread; weather resistance; electrical properties; products of combustion; and coefficients of expansion.

**2601.4 Identification**: All *plastic* materials approved for use under 780 CMR shall be identified by the trade formula number or name or other acceptable identification. Each unit or package shall bear the approval number or other identification mark of the approving authority.

**2601.5 Interior finish and trim**: Light-transmitting *plastic* materials installed as interior finish or trim shall comply with 780 CMR 803.0. Foam plastics shall only be installed as interior finish in accordance with 780 CMR 2603.8. Foam plastics installed as interior trim shall comply with 780 CMR 2603.7.

## 780 CMR 2602.0 DEFINITIONS

**2602.1 General**: The following words and terms shall, for the purposes of 780 CMR 26 and as used elsewhere in 780 CMR, have the meanings shown herein.

## Plastic

**Light-diffusing system**: A suspended construction consisting in whole or in part of

lenses, panels, grids or baffles suspended below independently mounted electrical lighting sources. **Plastic glazing**: *Plastic* materials which are glazed or set in frame or sash and not held by mechanical fasteners which pass through the glazing material.

**Plastic roof panels**: *Plastic* materials which are fastened to structural members, or to structural panels or sheathing, and which are used as light-transmitting media in roofs.

**Plastic wall panels**: *Plastic* materials which are fastened to structural members, or to structural panels or sheathing, and which are used as light-transmitting media in exterior walls.

**Reinforced plastic, glass fiber**: *Plastic* reinforced with glass fiber having not less than 20% of glass fibers by weight.

**Thermoplastic material**: A *plastic* material which is capable of being repeatedly softened by increase of temperature and hardened by decrease of temperature.

**Thermosetting material**: A *plastic* material which is capable of being changed into a substantially nonreformable product when cured.

## 780 CMR 2603.0 FOAM PLASTIC

**2603.1 General**: The provisions of 780 CMR 2603.0 shall govern the requirements and uses of foam plastic in buildings or structures.

## 2603.1.1 Urea based foamed-in-place insulation: Use of this material has been banned by the Massachusetts Department of Public Health.

**2603.2 Labeling**: Foam plastics or their packages of foam plastics, and containers of foam-in-place plastic system ingredients, shall be *labeled* in compliance with 780 CMR 1704.3.

**2603.3 Surface-burning characteristics**: Unless otherwise indicated in 780 CMR 2603.0, all foam plastic and foam plastic cores of manufactured assemblies shall have a flame spread rating of not more than 75 and a smoke-developed rating of not more than 450 when tested in the maximum thickness intended for use in accordance with ASTM E84 listed in *Appendix A*.

## Exceptions:

1. Smoke-developed ratings for interior trim as provided for in 780 CMR 2603.7.4.

2. Flame spread ratings for exterior wall installations as provided for in 780 CMR 2603.6.3 and 2603.6.8.

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3. Flame spread and smoke-developed ratings for roof applications as provided for in 780 CMR 4. Where foam plastic is tested in a thickness of four inches (102 mm) and is used in a thickness of greater than four inches (102 mm) up to ten inches (254 mm), the building shall be equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1 and the foam plastic shall be protected by a thermal barrier.

**2603.4 Thermal barrier**: Except as provided for in 780 CMR 603.4.1, all foam plastic shall be separated from the interior of a building by an approved thermal barrier of  $\frac{1}{2}$ -inch gypsum wallboard or equivalent thermal barrier material which will limit the average temperature rise of the unexposed surface to not more than 250°F (121°C) after 15 minutes of fire exposure, complying with the standard time-temperature curve of ASTM E119 listed in *Appendix A*. The thermal barrier shall be installed such that said thermal barrier will stay in place for a minimum of 15 minutes under the same test conditions.

**2603.4.1 Thermal barrier not required**: The thermal barrier specified in 780 CMR 2603.4 is not required under the conditions set forth in any one of 780 CMR 2603.4.1.1 through 2603.4.1.8.

**2603.4.1.1 Siding backer board**: Foam plastic to be used as siding backer board, or where applied as insulation with re-siding over existing exterior wall construction, shall have a maximum thickness of  $\frac{1}{2}$  inch (13 mm) and shall be separated from the interior of the building by not less than two inches (51 mm) of mineral fiber insulation or other approved materials.

**2603.4.1.2 Walk-in coolers**: Where foam plastic is used in a maximum thickness of four inches (102 mm) in walk-in coolers or in freezer units less than 400 square feet (37.2  $m^2$ ) in floor area, the foam plastic shall be covered by a metal facing of not less than 0.032-inch-thick aluminum or corrosion-resistant steel having a minimum base metal thickness of 0.016 inch.

**2603.4.1.3 Masonry or concrete construction**: Where the foam plastic is protected by a one-inch (25 mm) minimum thickness of masonry or concrete, a thermal barrier is not required.

**2603.4.1.4 Attics and crawl spaces**: Within an *attic* or crawl space where entry is made only for service of utilities, foam plastic shall be protected against ignition by 1½ inch-thick (38 mm) mineral fiber insulation, ¼-inch-thick wood structural panel, *particleboard* or 2603.4.1.5.

hardboard, \_-inch gypsum wallboard, corrosion-resistant steel having a base metal thickness of 0.016 inch, or other approved material installed in such a manner that the foam plastic is not exposed. The protective covering shall be consistent with the requirements for the type of construction.

**2603.4.1.5 Roofing**: Foam plastic used in a roof covering assembly that employs a wood roof deck without the thermal barrier shall have the foam plastic separated from the interior of the building by wood structural panel sheathing or tongue-and-groove wood plank sheathing not less than 15/32 inch in thickness or other approved materials. All wood structural panel roof sheathing shall be bonded with exterior glue with edges supported by blocking, tongue-and-groove joints or other approved type of edge support.

The requirements of 780 CMR 2603.3 and 2603.4 are not applicable to foam plastic roof insulation used in roof deck construction that complies as an assembly with FM 4450 or UL 1256 listed in *Appendix A*.

For all roof applications, the smokedeveloped rating shall not be applicable.

**2603.4.1.6 Doors not required to have a fireresistance rating**: Where doors are permitted without a fireresistance rating and foam plastic is used as a core material, the door facing shall be of metal having a minimum thickness of 0.032-inch aluminum or 0.016inch steel.

**2603.4.1.7 Exterior doors in buildings of Use Group R-3**: In buildings of Use Group R-3, foam-filled exterior entrance doors that do not require a fireresistance rating shall be faced with wood or other approved materials.

**2603.4.1.8 Exterior walls, one-story buildings**: A thermal barrier is not required in the exterior wall application provided for in 780 CMR 2603.6.8.

**2603.5 Exterior applications**: Foam plastic installed in or on the exterior side of walls of buildings shall also comply with the applicable requirements of 780 CMR 1405.0.

**2603.6 Exterior walls**: Foam plastic installed in or on the exterior side of exterior walls in buildings of Type 1, 2, 3 or 4 construction shall comply with the requirements of 780 CMR 2603.6.1 through 2603.6.7 or, in one-story buildings, shall comply with the requirements of 780 CMR 2603.6.8. **2603.6.1 Fireresistance rating**: Foam plastic is permitted within exterior walls provided that the wall assembly affords the required fireresistance rating.

**2603.6.3 Flame spread**: The foam plastic core, coatings and facings, when tested individually, shall each have a flame spread rating of 25 or less when tested in accordance with ASTM E84 listed in *Appendix A*.

**2603.6.4 Fastening**: Facing, coating and core materials shall be fastened to each other, and the overall assembly shall be fastened to the building frame to prohibit failure in bond due to temperatures that occur in a building fire, *wind loads* or other conditions.

**2603.6.5 Full-scale tests**: Results of full-scale fire tests, which reflect an end-use configuration and which demonstrate that the assembly in its final form does not show any tendency to propagate flame over the surface or through the core when exposed on the exterior face to a fire source, shall be submitted to the code official. Such testing shall be performed on the finished manufactured foam plastic assemblies and on the maximum thickness intended for installation.

**2603.6.6 Thermal barrier**: Any foam plastic shall be separated from the building interior by a thermal barrier unless specific approval is obtained on the basis of 780 CMR 2603.8.

**2603.6.7 Identification**: The edge or face of each piece of foam plastic insulation shall be *labeled* in accordance with 780 CMR 1704.3.

**2603.6.8 Exterior walls, one-story buildings**: Foam plastic insulation having a flame spread rating of not more than 25 and installed without a thermal barrier in or on exterior walls of onestory buildings, shall have a thickness of not more than four inches (102 mm). The foam plastic shall be covered by a thickness of not less than 0.032-inch aluminum or corrosion- resistant steel having a base metal thickness of 0.016 inch and the *building area* shall be equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

**2603.7 Interior trim**: Foam plastic used as interior trim shall comply with 780 CMR 2603.7.1 through 2603.7.4.

**2603.7.1 Density**: The minimum density of the interior trim shall be 20 pounds per cubic foot  $(320 \text{ kg/m}^3)$ .

**2603.6.2 Thickness**: The foam plastic shall be limited to a maximum thickness of four inches (102 mm).

**2603.7.2 Thickness:** The maximum thickness of the interior trim shall be  $\frac{1}{2}$  inch (13 mm) and the maximum width shall be four inches (102 mm).

**2603.7.3 Area limitation**: The interior trim shall not constitute more than 10% of the aggregate wall and ceiling area of any room or space.

**2603.7.4 Flame spread**: The flame spread rating shall not exceed 75 when tested in accordance with ASTM E84 listed in *Appendix A*. The smoke-developed rating shall not be limited.

2603.8 Alternative approval: Foam plastic is not required to comply with the requirements of 780 CMR 2603.4 through 2603.7 when specifically approved based on tests such as FM Procedure 4880, UL Subject 1040 or UL 1715 listed in Appendix A. Such testing shall be performed on the finished manufactured foam plastic assemblies and on the maximum thickness intended for use. Foam plastics which are used as interior finish on the basis of diversified tests shall also conform to the flame spread requirements of 780 CMR 803.0. All assemblies tested shall include seams, joints and other typical details used in the installation of the assembly and shall be tested in the manner intended for use.

## 780 CMR 2604.0 GENERAL REQUIREMENTS FOR LIGHT-TRANSMITTING PLASTICS

2604.1 Approved light-transmitting plastics: An approved light-transmitting *plastic* shall be: any thermoplastic, thermosetting or reinforced thermosetting *plastic* material which has a selfignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D1929 listed in Appendix A; a smoke density rating not greater than 450 when tested in the manner intended for use in accordance with ASTM E84 listed in Appendix A, or not greater than 75 when tested in the thickness intended for use in accordance with ASTM D2843 listed in *Appendix A*; and which conforms to one of the following combustibility classifications:

**Class C1**: *Plastic* materials which have a burning extent of one inch (25 mm) or less when tested at a nominal thickness of .060 inch, or in the thickness intended for use, in accordance with ASTM D635 listed in *Appendix A*, or

**Class C2**: *Plastic* materials which have a burning rate of 2.5 inches per minute (1.06 mm/s) or less when tested at a nominal thickness of .060 inch,

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or in the thickness intended for use, in accordance with ASTM D635 listed in *Appendix A*.

**2604.2 Structural requirements**: All *plastic* materials and associated assemblies shall be of adequate strength and durability to withstand the *loads* and forces specified in 780 CMR 16 for the approved application.

**2604.4 Other applicable requirements**: Lighttransmitting *plastics* installed as exterior wall panels shall conform to 780 CMR 2605.0. Lighttransmitting *plastics* installed in glazing of unprotected openings shall conform to 780 CMR 2606.0. Light-transmitting *plastics* installed as roof panels shall conform to 780 CMR 2607.0. Lighttransmitting *plastics* installed in skylight assemblies shall conform to 780 CMR 2608.0.

**2604.5 Light-diffusing systems**: Light-diffusing systems shall not be installed in occupancies in Use Group I-2 or I-3, nor in exits, unless the building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1. *Plastic* diffusers shall be supported directly or indirectly from ceiling or roof construction by use of noncombustible hangers. Hangers shall be at least No. 12 steel-wire gage (0.106 inch) galvanized wire or equivalent.

**2604.5.1 Installation**: Approved lighttransmitting *plastic* diffusers shall comply with 780 CMR 803.0 unless the *plastic* panels will fall from the mountings before igniting and at an ambient temperature of at least 200°F (93°C) below the ignition temperature of the panels. The panels shall remain in place at an ambient room temperature of 175°F (79°C) for a period of not less than 15 minutes

**2604.5.2 Size limitations**: Individual panels or units shall not exceed ten feet (3048 mm) in length nor 30 square feet (2.79  $m^2$ ) in area.

**2604.5.3 Fire suppression system**: In buildings that are equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1, *plastic* light-diffusing systems shall be protected both above and below unless the *sprinkler* system has been specifically approved for installation only above the light-diffusing systems. Areas of light-diffusing systems that are protected in accordance with 780 CMR 2604.0 shall not be limited.

**2604.5.4 Electrical lighting fixtures**: *Plastic* light-transmitting panels and light diffuser panels which are installed in approved electrical lighting fixtures shall comply with the requirements of 780 CMR 803.0 unless the *plastic* panels conform to the requirements of 780 CMR 2604.5.1. The area of approved *plastic* materials that are used in

**2604.3 Connections and supports**: All fastenings, connections and supports shall be proportioned to transmit safely two and one-half times the design *live load*. Adequate allowance shall be made in the fastenings and supports for differential expansion and contraction of the connected materials.

required *exits* or *corridors* shall not exceed 30% of the aggregate area of the ceiling in which such panels are installed, unless the building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

**2604.6 Partitions:** Approved light-transmitting *plastics* used in or as partitions shall comply with the requirements of 780 CMR 603.2 and 803.0.

**2604.7 Bathroom accessories**: Approved *plastics* shall be permitted as glazing in shower stalls, shower doors, bathtub enclosures and similar accessory units (see 780 CMR 2405.0).

**2604.8 Awnings and similar structures**: Approved light-transmitting *plastics* used on awnings and similar structures shall comply with the general performance provisions of 780 CMR.

## 780 CMR 2605.0 LIGHT-TRANSMITTING WALL PANELS

**2605.1** General: Approved light-transmitting plastic materials shall not be used as wall panels in exterior walls in occupancies in Use Groups A-1, A-2, I-2 and I-3. In all other use groups approved light-transmitting *plastic* materials shall be permitted to be used as wall panels in exterior walls provided that the walls are not required to have a fireresistance rating and the installation conforms to the requirements of 780 CMR 2605.0. Such panels shall be erected and anchored on a foundation coat, waterproofed or otherwise protected from moisture absorption and sealed with a coat of mastic or other approved waterproof coating. Refer to 780 CMR 2604.0 for requirements for approved lighttransmitting *plastics*.

**2605.2 Installation**: Exterior wall panels installed as provided for herein shall not alter the type of construction classification of the building.

**2605.3 Height limitation**: Light-transmitting plastics shall not be installed more than **70** *feet* (*21336mm*) above mean grade, except as allowed by 780 CMR 2605.7.

**2605.4 Area limitation and separation**: The maximum area of a single wall panel and minimum vertical and horizontal separation requirements for exterior *plastic* wall panels shall be as provided for

in Table 2605.4. The maximum percentage of wall area of any story in *plastic* wall panels shall not exceed that indicated in Table 2605.4 or the percentage of unprotected openings permitted by 780 CMR 705.3, whichever is smaller.

**Exception**: Veneers of approved weatherresistant plastics used as exterior siding in buildings of Type 5 construction in compliance with 780 CMR 1405.2.

**2605.5 Spandrel separation**: Vertical spandrel wall separation shall be in accordance with Table 2605.4. **2605.7 Automatic sprinkler system**: Where the building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1, the maximum percentage area of exterior wall in any story in *plastic* wall panels and the maximum square footage of a single area given in Table 2605.4 shall be increased 100%, but the area of *plastic* wall panels shall not exceed 50% of the wall area in any story, or the area permitted by 780 CMR 705.3.1 for unprotected openings, whichever is smaller. These installations shall be exempt from height limitations.

## Table 2605.4 AREA LIMITATION AND SEPARATION REQUIREMENTS FOR LIGHT-

TRANSMITTING PLASTIC WALL PANELS <sup>a</sup>							
Fire separation distance	Class of	Maximum percentage area of exterior wall in plastic	Maximum single area (square d	separ	imum ation of s (feet) <sup>d</sup> Horizonta		
(feet) <sup>u</sup>	plastic	panels	feet) <sup>u</sup>	Vertical	1		
< 6	-	NP <sup>c</sup>	NP	-	-		
6 or more but less	C1	10	50	8	4		
than 11	C2	NP	NP	-	-		
11 or	C1	25	90	6	4		
more but less than 30	C2	15	70	8	4		
	C1	50	Not	3 <sup>b</sup>	0		
> 30	C2	50	limited 100	6 <sup>b</sup>	3		

**Note a**. For combination of glazing and wall panel areas permitted, see 780 CMR 2605.8.

**Note b.** For reductions in vertical separation allowed, see 780 CMR 2605.0.

**Note c**. NP = Not permitted.

**Note d.** 1 foot = 304.8 mm; 1 square foot =  $0.093 \text{ m}^2$ .

**2605.8 Combinations of glazing and plastic wall panels**: Combinations of *plastic* glazing and *plastic* wall panels shall be subject to the area, height and percentage limitations and the separation See 780 CMR 2604.1 for the definition of C1 and C2 light-transmitting *plastics*.

**2605.6 Fire canopies**: In structures which are provided on any floor above the first with continuous architectural projections constituting an effective fire canopy extending at least 36 inches (914 mm) from the surface of the wall in which *plastic* wall panels are installed, vertical separation at that floor is not required except as provided by the vertical thickness of the projection.

requirements applicable to the class of *plastic* asprescribed for plastic wall panel installations.

## 780 CMR 2606.0 LIGHT-TRANSMITTING PLASTIC GLAZING OF UNPROTECTED OPENINGS

**2606.1 Where permitted**: *Plastic* glazing is permitted in doors, sashes and framed openings where *protected* openings are not required in accordance with 780 CMR 705.0 and the installation conforms to the requirements of 780 CMR 2606.2 or 780 CMR 2606.3.

**2606.2** Approved plastic glazing: Approved *plastic* glazing shall comply with 780 CMR 2606.2.1 through 2606.2.3.

**2606.2.1 Area**: The area of the glazing shall not exceed 25% of the wall face of the story in which such glazing is installed or the area of unprotected openings permitted by 780 CMR 705.3, whichever is smaller.

**Exception**: Where the building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1, the area of the glazing shall not exceed 50% of the wall face of the story in which such glazing is located or the area of unprotected openings permitted by 780 CMR 705.3.1, whichever is smaller.

**2606.2.2 Size**: The area of a unit or pane of glazing installed above the first story shall not exceed 16 square feet  $(1.49 \text{ m}^2)$  and the vertical dimension of a unit or pane shall not exceed four feet (1219 mm). There shall be a minimum three-foot (914 mm) vertical spandrel wall between stories.

**2606.2.3 Height**: Approved *plastic* glazing shall not be installed more than *70 feet (21336 mm)* above mean grade.

**2606.3** Approved thermoplastic glazing: Approved thermoplastic materials installed in areas up to 50% of the wall area of each story, but not exceeding the area of unprotected openings

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permitted by 780 CMR 705.3, are permitted in structures less than 150 feet (45720 mm) in *height* provided that each floor above the first floor is equipped with continuous architectural projections constituting an effective fire canopy extending at least three feet (914 mm) from the surface of the wall in which the glazing is installed. The size and the dimensions of individual units shall not be limited in such installations except as required to meet structural *loading* requirements.

## 780 CMR 2607.0 LIGHT-TRANSMITTING PLASTIC ROOF PANELS

**2607.1 General**: Approved light-transmitting *plastic* roof panels shall not be installed in occupancies in Use Groups H, I-2 and I-3. In all other use groups, approved light-transmitting *plastic* **2607.3 Location**: Where exterior wall openings are required to be *protected* by 780 CMR 705.0, a roof panel or unit shall not be installed within six feet (1829 mm) of such exterior wall.

**2607.4 Area limitations**: Roof panels or units shall be limited in area and the aggregate area of panels shall be limited by a percentage of the floor area of the room or space sheltered in accordance with Table 2607.4.

## **Exceptions**:

1. The area limitations of Table 2607.4 shall be increased by 100% in buildings equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

2. Low-hazard occupancy buildings, such as swimming pool shelters and greenhouses, are exempt from the area limitations of Table 2607.4 provided that the buildings do not exceed 5,000 square feet (465 m<sup>2</sup>) in *area* and have a minimum *fire separation distance* of four feet (1219 mm).

3. Roof coverings over terraces and patios in occupancies in Use Group R-3 are exempt from the area limitations of Table 2607.4 and shall be permitted with approved *plastics*.

<b>Table 2607.4</b>				
AREA LIMITATIONS FOR ROOF PANELS				

Class of plastic	Maximum area individual unit or panel (square feet) <sup>a</sup>	Maximum aggregate area (% of floor area)	
C1	300	30	
C2	100	25	

**Note a.** 1 square foot =  $0.093 \text{ m}^3$ 

## 780 CMR 2608.0 LIGHT-TRANSMITTING SKYLIGHT GLAZING

**2608.1 Light-transmitting plastic glazing of skylight assemblies**: Skylight assemblies glazed with approved light-transmitting *plastic* materials roof panels shall not be installed unless one of the following conditions applies:

1. The building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1;

2. The roof construction is not required to have a fireresistance rating by Table 602; or

3. The roof panels meet the requirements for roof coverings.

**2607.2 Separations**: Individual roof panels shall be separated from each other by a distance of not less than four feet (1219 mm) measured in a horizontal plane, except that the separation between roof panels is not required in a building equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

shall conform to the provisions of 780 CMR 2608.0. **Exceptions**:

1. 780 CMR 2608.1 shall not apply to a skylight of approved light-transmitting *plastic* on a building which is not more than one story in *height*, has a *fire separation distance* of at least 30 feet (9144 mm) and the room or space sheltered by the roof is not classified as Use Group I-2 or I-3 or as a *means of egress*.

2. 780 CMR 26.08.1 shall not apply to skylights in which the approved light-transmitting *plastic* conforms to the required roof covering class in accordance with 780 CMR 1506.0.

**2608.2 Mounting**: The *plastic* shall be mounted above the plane of the roof on a curb constructed in accordance with the requirements for the type of construction classification, but at least four inches (102 mm) above the plane of the roof. Edges of *plastic* skylights or domes shall be protected by metal or other approved noncombustible material, or the *plastic* dome or skylight shall be shown to be able to resist ignition when exposed at the edge to a flame from a Class B brand as described in ASTM E108 listed in *Appendix A*.

#### Exceptions:

1. Curbs are not required for skylights used on roofs having a minimum slope of three units vertical in 12 units horizontal (3:12) in occupancies in Use Group R-3 and on buildings with an unclassified roof covering.

2. The metal or noncombustible edge material is not required where unclassified roof coverings are permitted.

**2608.3 Slope**: Flat or corrugated *plastic* skylights shall slope at least four units vertical in 12 units horizontal (4:12). Dome-shaped skylights shall rise above the mounting flange a minimum distance equal to 10% of the maximum span of the dome, but not less than three inches (76 mm).

**Exception**: Skylights that pass the Class B Burning Brand Test specified in ASTM E108 listed in *Appendix A*.

**2608.4 Maximum area of skylight units**: Each skylight unit shall have a maximum area within the curb of 100 square feet  $(9.30 \text{ m}^2)$  except that the area of skylight units shall not be limited in buildings equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

**2608.5 Aggregate area of skylights**: The aggregate area of skylights shall not exceed 33% of the floor area of the room or space sheltered by the roof in which such skylights are installed where Class C1 materials are utilized, and 25% where Class C2 materials are utilized.

Exception: The aggregate area limitations of approved *plastic* skylights shall be increased 100% beyond the limitations set forth in 780 CMR 2608.0 where the building is equipped
2608.8 Combinations of roof panels and skylights: Combinations of *plastic* roof panels and skylights shall be subject to the area and percentage

throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1

**2608.6 Separation**: Skylights shall be separated from each other by a distance of not less than four feet (1219 mm) measured in a horizontal plane, except that the separation shall not be required where the building is equipped throughout with an *automatic sprinkler system* in accordance with 780 CMR 906.2.1.

**2608.7 Location**: Where exterior wall openings are required to be *protected* by 780 CMR 705.0, a skylight shall not be installed within six feet (1829 mm) of such exterior wall.

limitations and separation requirements applicable to roof panel installations.

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