Tech-Talk Bulletin

NFPA 285 Assemblies

Effective 09/15/2017
Supersedes all previous versions

The following Henry® assemblies meet the performance requirements of NFPA 285 as required by the International Building Code® (2003, 2006, 2009, 2012 and 2015 editions).

These assemblies are based on the specific construction materials installed in the manner described in the tables shown. Changes or modifications to the construction and/or materials used in the tested assembly may result in a different fire performance and not meet the performance requirements of NFPA 285. All air barriers to be installed at recommended application rates as per Henry® installation instructions.

This document will be updated periodically. Therefore, it is important to refer to the most up to date version as found on the Henry® website: **www.henry.com**.

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Henry® assemblies

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Table 1. Walls containing XPS insulation and Henry® air barrier membranes as noted

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. 1 layer – ⅝-inch thick, Type X, gypsum wallboard on interior, installed over steel studs: minimum 3⅝-inch depth, minimum 20-gauge at a maximum of 24-inch OC with lateral bracing every 4-ft. vertically
Floorline Firestopping	4 lb/cu ft. mineral wool (e.g. Thermafiber or Roxul) in each stud cavity at each floorline – attached with Z-clips or equivalent
Cavity insulation *Use either 1, 2, 3, 4 or 6*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136 3. Any mineral fiber (Board type Class A, ASTM E84 faced or unfaced) 4. Any fiberglass (Batt type Class A, ASTM E84 faced or unfaced) 5. Items 2-4 may incorporate a Class A vapor barrier film 6. Henry Permax™ SPF maximum thickness 6-inch
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing *Use either 1 or 2*	1. ½-inch thick, exterior type gypsum sheathing 2. ⅝-inch thick, Type X, exterior type gypsum sheathing
Air barrier membrane applied to gypsum sheathing *Select from list*	1. None 2. Air-Bloc® 16MR 3. Air-Bloc® 17MR 4. Air-Bloc® 21FR or 21S 5. Air-Bloc® 31MR 6. Air-Bloc® 32MR 7. Air-Bloc® 33MR 8. Blueskin® VP160 9. Blueskin® SA or SA LT 10. Metal Clad™ 11. FoilSkin®
Exterior insulation	Extruded Polystyrene Foam Insulation (XPS) - Type IV per ASTM C578 – Maximum of 3-inch thickness on insulation joints, flashing tape such as Henry® Blueskin® SA or Butyl Flash – max. 12-inch width can be used.
Exterior veneer *Use either 1, 2, 3, 4, 5 or 6*	1. Brick – Standard nominal 4-inch thick, clay brick. Brick installed with standard type veneer anchors at maximum 24-inch OC vertically on each stud. Maximum 2-inch air gap between exterior insulation and brick 2. Concrete – 2-inch thick or greater. Maximum 2-inch air gap between exterior insulation and concrete. 3. Concrete masonry units – 4-inch thick or greater. Maximum 2-inch air gap between exterior insulation and CMU. 4. Stone veneer – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1½-inch thick cast artificial stone veneer. Any standard non-open-joint installation technique such as ship-lap, etc. can be used. 5. Terracotta cladding – Use any terracotta cladding system in which terracotta is minimum 1¼-inch thick. Any non-open-joint installation technique such as ship-lap, etc. can be used. 6. Stucco – Minimum ¾-inch thick, exterior cement plaster and lath. This exterior veneer cannot be used with the exterior insulation described above.
Special conditions	Use header treatment shown in figure 1, 2 or 3 for all window and door openings in walls utilizing XPS insulation.
Flashing of window, door and other exterior wall penetrations	As an option, flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

Figure 1 – Window/door opening detail

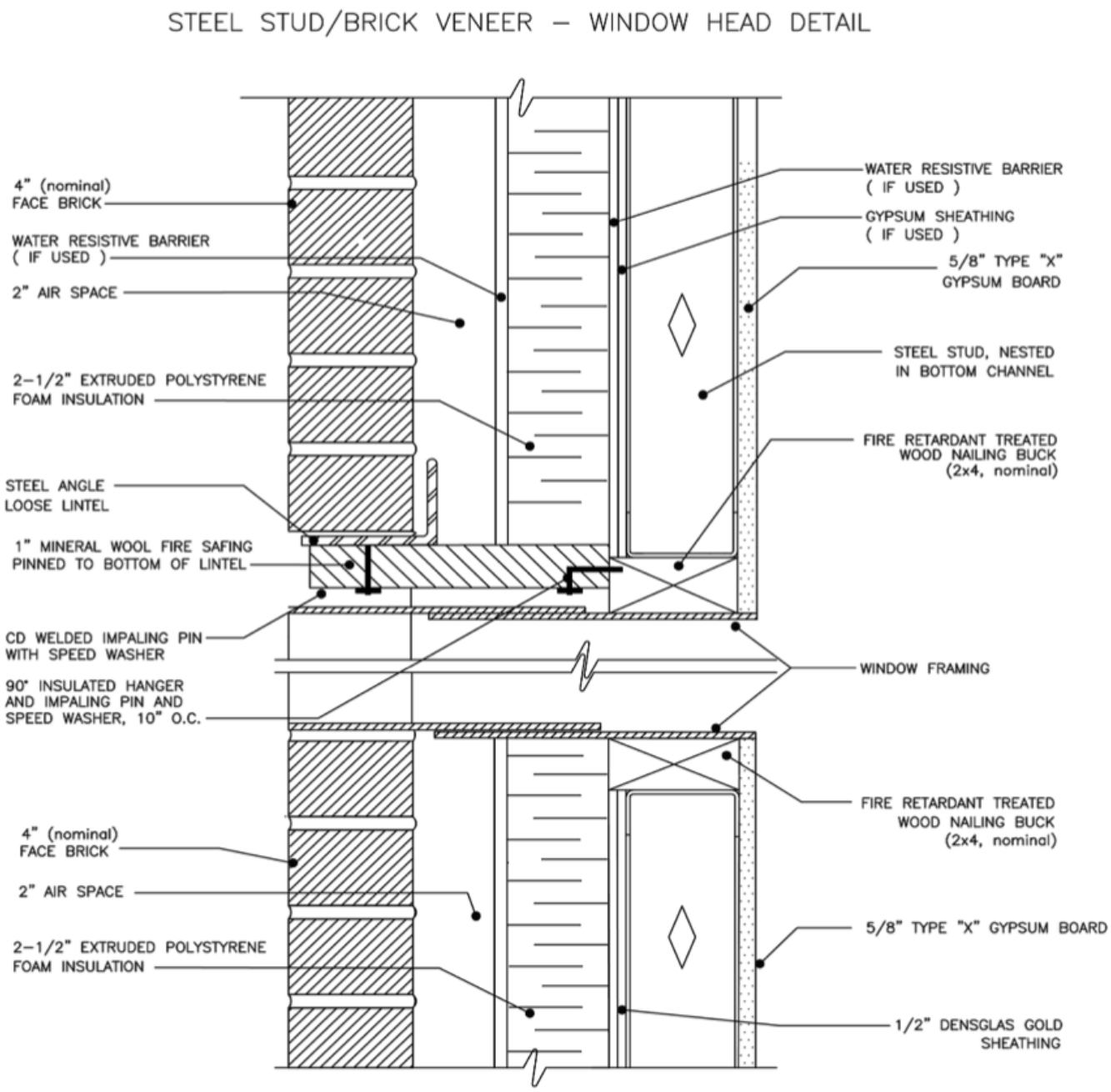


Figure 2 – Window/door opening detail

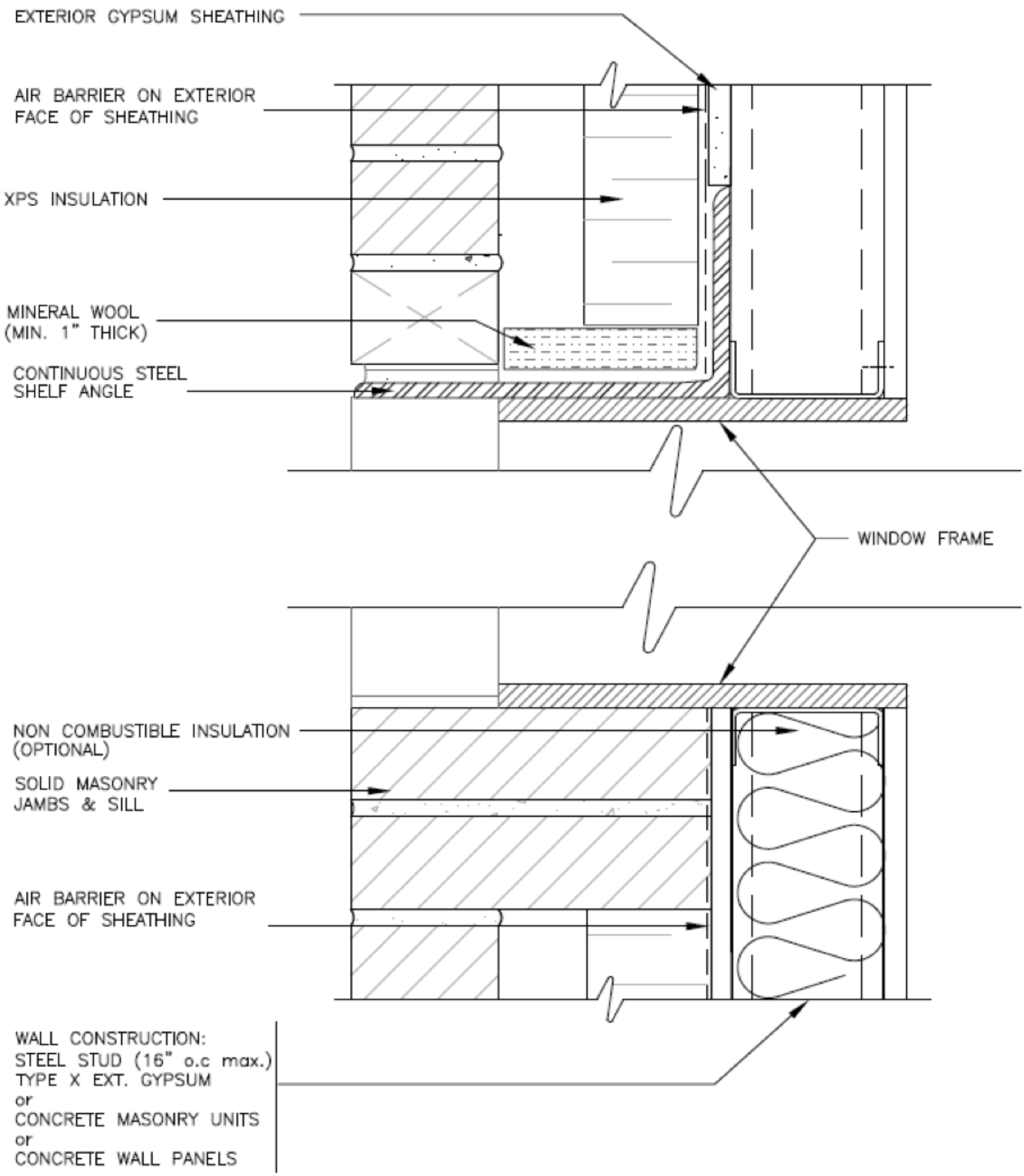


Figure 3 – Window/door opening detail

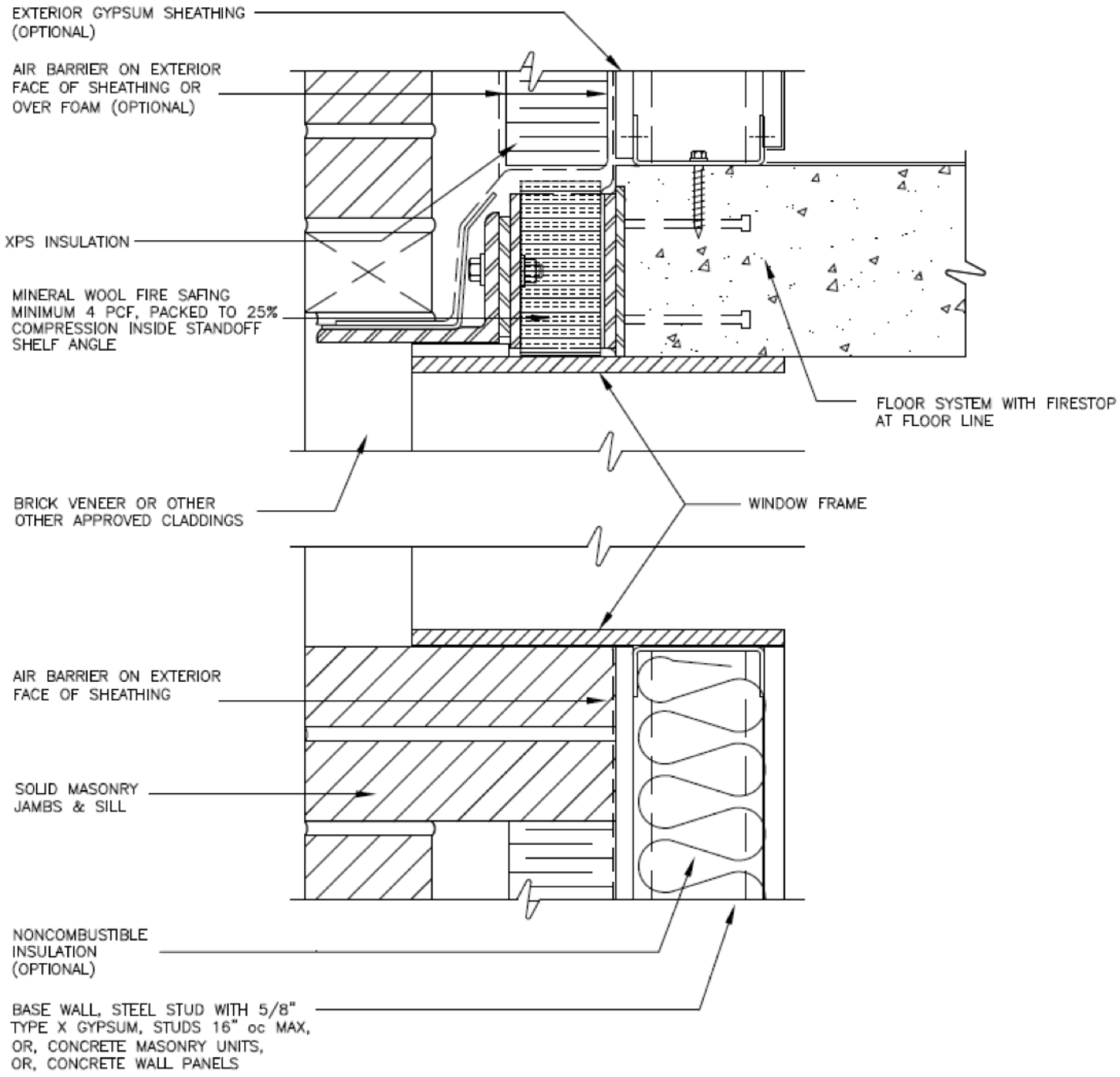


Table 2. Walls containing Henry® Permax™ 2.0 or Permax™ 1.8 Closed-Cell SPF

Moisture analysis	
Wall component	**Materials**
Base wall system	1 layer – ⅝-inch thick, Type X, gypsum wallboard on interior, installed over steel studs: 6-inch depth, minimum 16-gauge at a maximum of 16-inch OC
Cavity insulation *Use either 1 or 2*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing	½-inch thick, exterior type gypsum sheathing DensGlass® Gold Exterior Sheathing (Georgia Pacific)
Air barrier membrane applied to gypsum sheathing	None
Exterior insulation	Permax™ 2.0 or Permax™ 1.8 Closed-Cell Sprayed Polyurethane Foam Insulation (nominal density of 2.0 lb/ft^3 or 1.8 lb/ft^3), spray applied to a nominal 4-inch thickness on the outside of the exterior gypsum sheathing.
Exterior veneer	Brick – Standard nominal 4-inch thick, clay brick with Type S masonry cement. Brick installed with 3½-inch X-seal HD6 Hohmann & Barnard, Inc. Anchors, installed in the insulation, over the DensGlass® Gold Exterior Sheathing at 16-inch OC using #14 x 5-inch polymer-coated screws with washer creating a minimum 2-inch air space between the insulation and brick.
Special conditions	The window lintel – 4-inch x 4-inch x ¼-inch steel angle, 94-inch long (8-inch coverage on both sides of the window). The window header, jambs and sill constructed of 2 overlapping pieces of 2-inch x 9-inch, 16-gauge steel installed using #12 x 1-1.2 TEKS® self-tapping screws spaced a nominal 24-inch OC on the window header, sill and jambs. The steel is to be attached to the interior of the wall using #12 x 1-1/2 TEKS® self-tapping screws spaced a nominal 24-inch OC through the 2-inch leg, and to the brick facing using ¼-inch x 1¼-inch TITEN® Simpson Strong Ties spaced a nominal 24-inch OC through the 2-inch leg.

Table 2.5. Walls containing Henry® Permax™ 2.0X or Permax™ 2.0X Fast Closed-Cell SPF

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. 1 layer – ⅝-inch thick Type X gypsum wallboard complying with ASTM C36 or C1396 on the interior, installed over minimum 3⅝-inch, no. 20-gauge C-shaped steel studs, spaced a maximum of 24-inch on center with lateral bracing every 4-ft. vertically.
Floorline firestopping	4 pcf mineral wool in each stud cavity at each floorline, attached with z-clips
Cavity insulation *Use either 1, 2 or 3*	1. None 2. Fiberglass batt insulation (faced or unfaced) 3. Permax™ 2.0X or Permax™ 2.0X Fast Closed-Cell SPF
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing	½-inch or ⅝-inch thick, exterior type gypsum sheathing
Exterior insulation	Permax™ 2.0X or Permax™ 2.0X Fast Closed-Cell Sprayed Polyurethane Foam Insulation (nominal density of 2.0 lb/ft^3), spray applied to a maximum nominal 3-inch thickness on the outside of the exterior gypsum sheathing.
Exterior veneer	1. Brick – Standard nominal 4-inch thick clay brick with Type S masonry cement. Brick veneer anchors installed at a maximum of 24-inch OC creating a minimum 2-inch air space between the insulation and brick. 2. Stucco – minimum ¾-inch thick exterior cement plaster and lath. 3. Minimum 2-inch thick limestone. Any standard non-open jointed installation technique such as ship-lap, etc. may be used.

Table 3. Walls containing polyisocyanurate insulations and Henry® air barrier membranes as noted

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. Steel Stud Framed Wall (24-inch OC max.) – Minimum 16-gauge, 3⅝-inch studs, with lateral bracing every 4-ft. vertically, with a minimum of 1 layer of ⅝-inch Type X gypsum wallboard on interior face of studs.
Floorline firestopping	With Base wall system No. 3 above, 4 lb/cu ft. mineral wool (e.g. Thermafiber) in each stud cavity and at each floorline – attached with Z-clips or equivalent
Cavity insulation *Use either 1, 2, 3, 4 or 6*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136 3. Any mineral fiber (Board type Class A, ASTM E84 faced or unfaced) 4. Any fiberglass (Batt type Class A, ASTM E84 faced or unfaced) 5. Items 2-4 may incorporate a Class A vapor barrier film 6. Henry® Permax™ Closed-Cell SPF maximum thickness 6-inc
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing	⅝-inch thick, Type X, exterior type gypsum sheathing
Henry® air barrier membrane applied to gypsum sheathing *Select from list*	1. None 2. Air-Bloc® 16MR 3. Air-Bloc® 17MR 4. Air-Bloc® 21FR & 21S 5. Air-Bloc® 31MR 6. Air-Bloc® 32MR 7. Air-Bloc® 33MR 8. Blueskin® VP160 9. Blueskin® SA or SA LT 10. Metal Clad™
Exterior insulation *Use either 1 or 2*	1. None 2. Atlas® Energy Shield® Pro Rigid Insulation, Atlas® Energy Shield® Pro2 Rigid Insulation or Atlas® Rboard® Rigid Insulation with 4-inch maximum thickness using joint tape tested per ASTM E1354
Exterior veneer *Use either 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10*	1. Brick – Brick veneer anchors – standard types – installed maximum 24-inch OC vertically on each stud Maximum 2-inch air gap between exterior insulation and brick. Standard nominal 4-inch thick, clay brick 2. Stucco – Minimum ¾-inch thick, exterior cement plaster and lath. A secondary water-resistive barrier can be installed between the exterior insulation and the lath. The secondary water-resistive barrier shall not be full-coverage asphalt or butyl-based self-adhered membranes. 3. Stone veneer – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1½-inch thick cast artificial stone veneer. Any standard installation technique can be used. 4. Terracotta cladding – Use any terracotta cladding system in which terracotta is minimum 1¼-inch thick. Any standard installation technique can be used. 5. Metal veneer such as steel, aluminum, copper, etc. Any standard installation technique can be used. 6. Fiber cement siding or fiber cement panels. Any standard installation technique can be used. 7. MCM System – Use any Metal Composite Panel that has been successfully tested by the panel manufacturer via NFPA 285 test method. *Note*: Only steel window framing shall be used. 8. Concrete Masonry Units (CMU) – Minimum 4-inch thick CMU, with a 2-inch maximum air gap between exterior insulation and CMU. 9. Concrete Panels – Minimum 2-inch thick panel, with a 2-inch maximum air gap between exterior insulation and concrete panel. 10. Insulated Concrete Sandwich Panels – Minimum 2-inch thick outer and inner faces. Maximum 2-inch air gap between inner face and wall system. Note: All exterior veneer/cladding systems must be installed in accordance with manufacturer's recommended installation instructions and with applicable building codes.
Special conditions	Use 0.03 inch stainless flashing header treatment when polyisocyanurate exterior insulation installed in conjunction with spray polyurethane foam cavity insulation.
Flashing of window, door and other exterior wall penetrations	As an option, flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

Table 4. Walls containing mineral wool insulation and Henry® air barriers as noted

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. Steel studs with Interior wall membrane (typically gypsum) on the interior
Cavity insulation *Use either 1, 2, 3, 4 or 6*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136 3. Any mineral fiber (Board type Class A, ASTM E84 faced or unfaced) 4. Any fiberglass (Batt type Class A, ASTM E84 faced or unfaced) 5. Items 2-4 may incorporate a Class A vapor barrier film 6. Henry® Permax™ Closed-Cell SPF maximum thickness 6-inch
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing *Use either 1 or 2*	1. ½-inch thick, exterior type gypsum sheathing 2. ⅝-inch thick, Type X, exterior type gypsum sheathing
Air barrier membrane applied to gypsum sheathing *Select from list*	1. None 2. Air-Bloc® 06WB 3. Air-Bloc® 16MR 4. Air-Bloc® 17MR 5. Air-Bloc® 21FR or 21S 6. Air-Bloc® 31MR 7. Air-Bloc® 32MR 8. Air-Bloc® 33MR 9. Blueskin® VP160 10. Blueskin® SA or SA LT 11. Metal Clad™ 12. FoilSkin®
Exterior insulation	Mineral wool insulation as per ASTM C612 and meeting the following conditions: • The mineral wool shall be a minimum of 1.5-inch thick • The mineral wool shall be noncombustible via ASTM E136 testing • The density of the mineral wool shall range from 4.0 to 9.0 lbs/ft^3 • The R-value/inch of the mineral wool shall range from 3.5 to 4.5 • The mineral wool insulation must be mechanically attached, and • The mineral wool must completely cover the air barrier membrane
Exterior veneer *Use either 1, 2, 3, 4, 5, 6, 7 or 8*	1. Brick – Standard nominal 4-inch thick, clay brick. Brick installed with standard type veneer anchors at maximum 24-inch OC vertically on each stud. Maximum 2-inch air gap between exterior insulation and brick 2. Concrete – 2-inch thick or greater. Maximum 2-inch air gap between exterior insulation and concrete. 3. Concrete masonry units – 4-inch thick or greater. Maximum 2-inch air gap between exterior insulation and CMU. 4. Stone veneer – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1½-inch thick cast artificial stone veneer. Any standard non-open-joint installation technique such as ship-lap, etc. can be used. 5. Terracotta cladding – Use any terracotta cladding system in which terracotta is minimum 1¼-inch thick. Any non-open-joint installation technique such as ship-lap, etc. can be used. 6. Stucco – Minimum ¾-inch thick, exterior cement plaster and lath. This exterior veneer cannot be used with the exterior insulation described above. 7. Metal veneer such as steel, aluminum, copper, etc. Any standard installation technique can be used. 8. NFPA 285 complying Combustible Veneer
Special conditions	• Any combustible NFPA 285 complying exterior veneer is identical to that tested • The use of the Air Barrier membranes is limited to applications behind the mineral wool insulation and not on the exterior face of the insulation. • No other combustibles such as foam plastic insulations, etc. are used in the wall system. • Cavity wall space is optional.
Flashing of window, door and other exterior wall penetrations	As an option, flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

Table 5. Walls excluding exterior insulation and Henry® air barriers as noted

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. Steel Stud Framed Wall (24-inch OC max.) – Minimum 16-gauge, 3⅝-inch studs with lateral bracing every 4 ft. vertically, with a minimum of 1 layer of ⅝-inch Type X gypsum wallboard on interior face of studs.
Floorline firestopping	With Base wall system No. 3 above, 4 lb/cu ft. mineral wool (e.g. Thermafiber) in each stud cavity and at each floorline – attached with Z-clips or equivalent
Cavity insulation *Use either 1 or 2*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing	⅝-inch thick, Type X, exterior type gypsum sheathing
Air barrier membrane applied to gypsum sheathing *Select from list*	1. Metal Clad™ 2. Air-Bloc® 17MR
Exterior insulation	None
Exterior veneer *Use either 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10*	1. Brick – Brick veneer anchors – standard types – installed maximum 24-inch OC vertically on each stud Maximum 2-inch air gap between exterior insulation and brick standard nominal 4-inch thick, clay brick 2. Stucco – Minimum ¾-inch thick, exterior cement plaster and lath. A secondary water-resistive barrier can be installed between the exterior insulation and the lath. The secondary water-resistive barrier shall not be full-coverage asphalt or butyl-based self- adhered membranes. 3. Stone veneer – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1½-inch thick cast artificial stone veneer. Any standard installation technique can be used. 4. Terracotta cladding – Use any terracotta cladding system in which terracotta is minimum 1¼-inch thick. Any standard installation technique can be used. 5. Metal veneer such as steel, aluminum, copper, etc. Any standard installation technique can be used. 6. Fiber cement siding or fiber cement panels. Any standard installation technique can be used. 7. MCM System – Use any Metal Composite Material system that has been successfully tested by the panel manufacturer via NFPA 285 test method. *Note*: Only steel window framing shall be used. 8. Concrete Masonry Units (CMU) – Minimum 4-inch thick CMU, with a 2-inch maximum air gap between exterior insulation and CMU. 9. Concrete Panels – Minimum 2-inch thick panel, with a 2-inch maximum air gap between exterior insulation and concrete panel. 10. Insulated Concrete Sandwich Panels – Minimum 2-inch thick outer and inner faces. Maximum 2-inch air gap between inner face and wall system. *Note*: All exterior veneer/cladding systems must be installed in accordance with manufacturer's recommended installation instructions and with applicable building codes.
Flashing of window, door and other exterior wall penetrations	As an option, flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

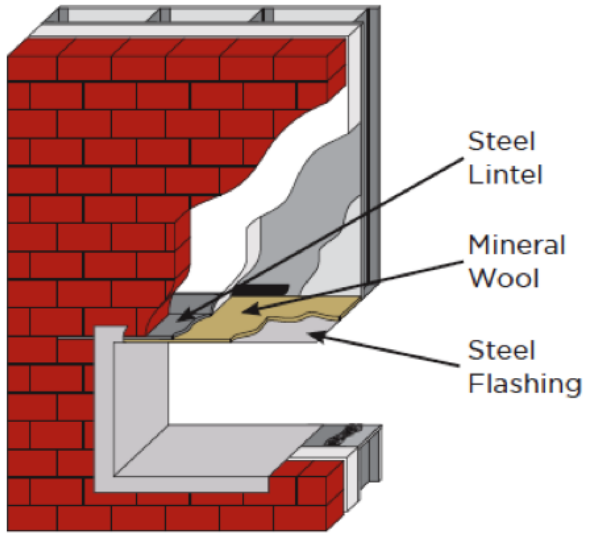
Table 6. Walls containing expanded polystyrene insulation and Henry® air barrier membranes as noted

Moisture analysis	
Wall component	**Materials**
Base wall system *Use either 1, 2 or 3*	1. Concrete wall 2. Concrete masonry wall 3. 1 layer – 5/8-inch thick, Type X, Gypsum wallboard on interior, installed over steel studs: minimum 3 5/8-inch depth, minimum 20-gauge at a maximum of 24-inch OC with lateral bracing every 4-ft vertically
Floorline firestopping	4 lb/cu ft. mineral wool (e.g. Thermafiber or Roxul) in each stud cavity at each floor-line – attached with Z-clips or equivalent
Cavity insulation *Use either 1, 2, 3, 4 or 6*	1. None 2. Any noncombustible insulation (faced or unfaced) per ASTM E136 3. Any mineral fiber (Board type Class A, ASTM E84 faced or unfaced) 4. Any fiberglass (Batt type Class A, ASTM E84 faced or unfaced) 5. Items 2-4 may incorporate a Class A vapor barrier film 6. Henry Permax™ Closed-Cell SPF maximum thickness 6-inch
Interior vapor membrane (optional) *Use either 1 or 2*	1. None 2. One layer of maximum 6-mil thick polyethylene film
Exterior sheathing *Use either 1 or 2*	1. 1/2-inch thick, exterior type gypsum sheathing 2. 5/8-inch thick, Type X, exterior type gypsum sheathing
Air barrier membrane applied to gypsum sheathing *Select from list*	1. None 2. Air-Bloc® 16MR 3. Air-Bloc® 17MR 4. Air-Bloc® 21FR or 21S 5. Air-Bloc® 31MR 6. Air-Bloc® 33MR 7. Blueskin® VP160 8. Blueskin® SA or SA LT 9. Metal Clad™ 10. FoilSkin®
Exterior insulation	1. Atlas ThermalStar® CVT™ 25 – maximum 5.4-inch thick 2. Atlas ThermalStar® CVT™ 15 – maximum 7.2-inch thick 3. Atlas ThermalStar® LCi™ 25 – maximum 5.4-inch thick 4. Atlas ThermalStar® LCi™ 15 – maximum 7.2-inch thick 5. Atlas ThermalStar® CHROME 15 – maximum 7.2-inch thick 6. Atlas ThermalStar® CHROME 25 – maximum 5.4-inch thick 7. AFM Foam Control® EPS Type I – 10.75-inch 8. AFM Foam Control® EPS Type VIII – 8.25-inch 9. AFM Foam Control® EPS Type II – 7-inch 10. AFM Foam Control® EPS Type IX – 5.25-inch 11. AFM Foam Control® EPS Type XIV – 4-inch 12. AFM Foam Control® EPS Type XV – 3.25-inch
Exterior veneer *Use either 1, 2, 3, or 4*	1. Brick – Standard nominal 4-inch thick, clay brick. Brick installed with standard type veneer anchors at maximum 24-inch OC vertically on each stud. Maximum 2-inch air gap between exterior insulation and brick 2. Stone veneer – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1 1/2-inch thick cast artificial stone veneer. Any standard non-open-joint installation technique such as ship-lap, etc. can be used. 3. Terracotta cladding – Use any terracotta cladding system in which terracotta is minimum 1 1/4-inch thick. Any non-open-joint installation technique such as ship-lap, etc. can be used. 4. Stucco – Minimum 3/4-inch thick, exterior cement plaster and lath.
Special conditions	Use header treatment shown in figure 1 for all window and door openings in walls utilizing EPS insulation.
Flashing of window, door and other exterior wall penetrations	Flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

Figure 1 – Header detail

Window Header Detail

1. 25 GA. (min.) sheet metal (steel) flashing with 1" thick, 4 pcf mineral wool over interior of sheet steel
2. Header design equal or better than item 1



NFPA 285 Approved Assemblies by Third Party

Certification of NFPA 285 test results or extension by engineering analysis was provided by the listed manufacturers. Henry® did not participate in their testing or certification processes and therefore assumes no responsibility for their results. Contact the manufacturer for more information.

Laminators Inc. - Omega-Lite® Dry Seal System

The assemblies below are the property of Laminators Inc. For additional information, clarification or installation questions please contact Laminators Inc. at 877-OMEGA77 or fax them at 215-721-1239. You may also visit their website at www.laminatorsinc.com

Moisture analysis	
Wall component	**Materials**
Base wall system	1 layer – ⅝-inch thick, Type X, gypsum wallboard on interior, installed over steel studs: minimum 6-inch depth, minimum 20-gauge at a maximum of 16-inch OC
Floorline firestopping	4 lb/cu ft. mineral wool (e.g. Thermafiber or Roxul) in each stud cavity at floor-line – attached with Z-clips or equivalent
Cavity insulation *Use either 1 or 2*	1. None 2. Any noncombustible insulation (unfaced) per ASTM E136
Exterior sheathing	⅝-inch thick, Densglass® Gold Sheathing
Air barrier membrane applied to gypsum sheathing	1. Henry® Air-Bloc® 31MR (For ext. veneer option 1 or 2 only) 2. Henry® Air-Bloc® 33MR (For ext. veneer option 3 only)
Exterior insulation *Use either 1 or 2*	1. None 2. Mineral wool non-combustible insulation
Exterior veneer	1. Omega-Lite® 1 Piece, Tight-fit Molding System 2. Omega-Lite® Dry Seal System 3. Omega-Lite® Rout & Return System • In accordance with Laminators Inc. installation procedures. • Contact Laminators Inc. at www.laminatorsinc.com for more details.
Flashing of window, door and other exterior wall penetrations	As an option, flash window, door and other exterior penetrations with Henry® Blueskin® SA, Butyl Flash or Air-Bloc® LF – max. 12-inch width.

Tech-Talk: NFPA 285 Assemblies

Hunter Panels

The assemblies below are the property of Hunter Panels. For additional information, clarification or installation questions please contact Hunter Panels at 888-746-1114. You may also visit their website at **http://www.hunterxci.com/.**

Moisture analysis	
Wall component	**Materials**
Base wall system	1. Steel Stud – 1 layer ⅝-inch thick Type X or ½-inch thick Type C gypsum wallboard on interior, installed over steel studs: minimum 3 ⅝-inch depth, minimum 25-gauge at a maximum of 24-inch OC with lateral bracing every 4-ft. vertically 2. Concrete wall (cast in place or precast) 3. Concrete masonry wall
Floor-line Fire-stopping	4-lb/cu ft. mineral wool (e.g. Thermafiber or Roxul) in each stud cavity at floorline – attached with Z-clips or equivalent
Cavity Insulation *Use either 1 or 2*	1. None 2. Any noncombustible insulation (unfaced) per ASTM E136
Exterior sheathing	½-inch or ⅝-inch thick exterior type gypsum sheathing
Air barrier membrane applied to gypsum sheathing *Use either 1, 2, 3 or 4*	1. Henry® Air-Bloc® 31MR 2. Henry® Air-Bloc® 33MR 3. Henry® Air-Bloc® 21S or 21FR 4. Henry® Air-Bloc® 17MR 5. Henry® Air-Bloc® 16MR 6. Henry® Foilskin® 7. Henry® Metal Clad™
Exterior insulation *Use either 1, 2 or 3*	1. 3½-inch maximum thickness of Hunter Xci CG, 4x8 panels or cut to size 2. 3½-inch maximum thickness of Hunter Xci Class A 3. 3½-inch maximum thickness of Hunter Xci-286
3, 4, 5, 6, 7 or 8	1. Masonry brick – veneer anchors, standard types, installed maximum 24-inch OC vertically on each stud. Maximum 2-inch air gap between exterior insulation and brick. Standard nominal 4-inch thick or greater, clay or concrete brick. 2. Stucco – Minimum ¾-inch thick, exterior cement plaster and lath 3. Limestone or Natural Stone – Minimum 2-inch thick, limestone or natural stone veneer or minimum 1½-inch thick cast artificial stone veneer. Any standard installation technique can be used. 4. Terracotta Cladding – Use any terracotta cladding system in which terracotta is minimum 1¼-inch. Any standard installation technique can be used. 5. MCM System – Use any Metal Composite Material system that has been successfully tested by the panel manufacturer via the NFPA 285 test method. Any standard installation technique can be used. 6. Metal Exterior wall coverings such as Steel, Aluminum, Copper, etc. Any standard installation technique can be used. 7. Fiber Cement Board Siding – Any standard installation technique can be used. 8. Stone Aluminum Honeycomb Composite Panels that have been successfully tested by the panel manufacturer via the NFPA 285 test method. Any standard installation technique can be used.

NFPA 285 Performance Requirements and Code References

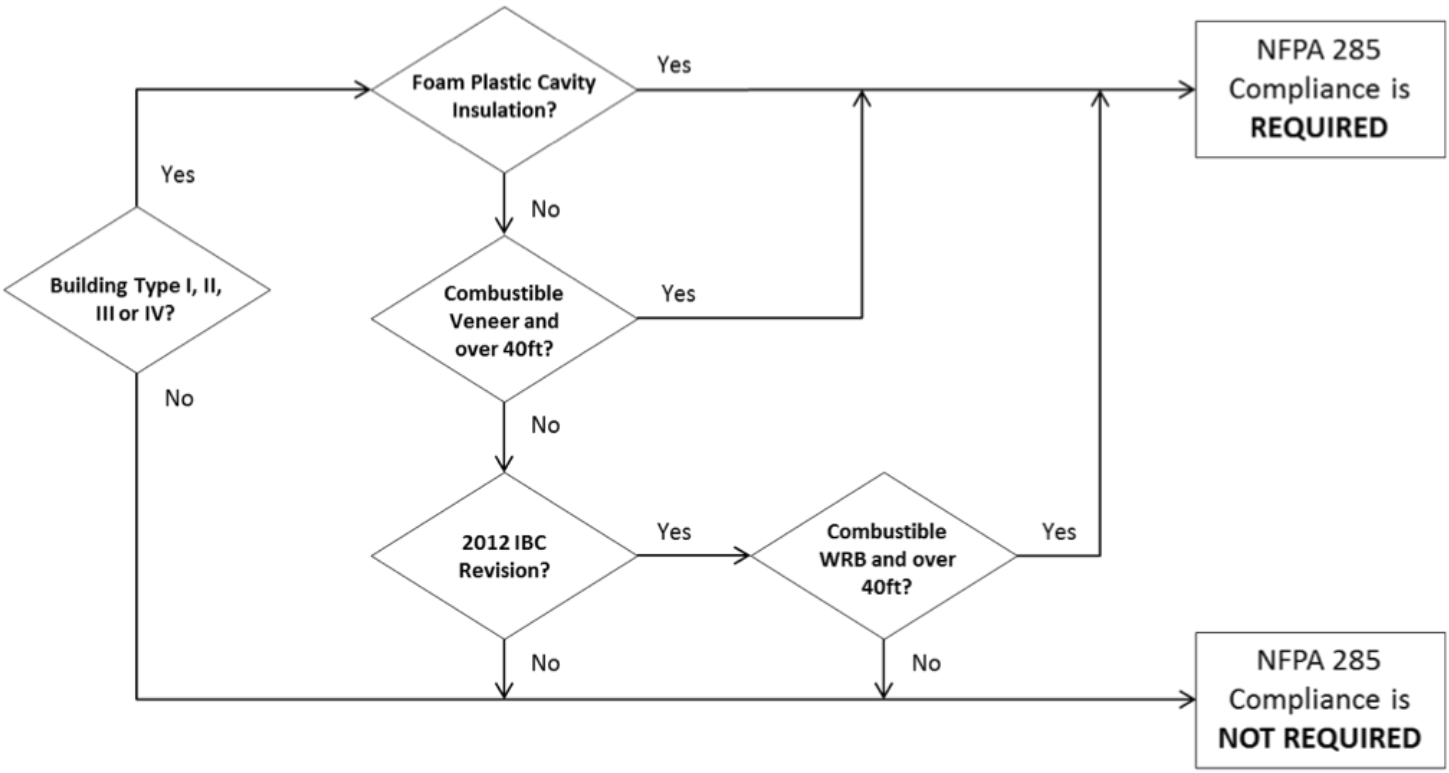
NFPA 285 (previously UBC 26-9) is the standard fire test method for evaluation of fire propagation characteristics of exterior non-load-bearing wall assemblies containing combustible components.

Meeting the performance requirements of NFPA 285 is determined by the analysis of NFPA 285 tests and additional small scale tests. Analysis is provided by accredited testing facilities and outside Fire Protection engineers as referenced in AC12 §6.6.

The relevant sections of the International Building Code® that address NFPA 285 are as follows.

Foam Plastics	§2603.5.5	(~1988 edition)
Combustible Veneers – Use over 40ft above grade		
MCMs & ACMs	§1407.10	(2000 edition)
HPLs	§1409.10	(2009 edition)
EIFS	§1408.2	(2009 edition)
FRPs	§2612.5	(2009 edition)
Water-resistive barriers	§1403.5	(2012 edition)

Quick reference NFPA 285 flow chart



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