No. OP822
August 2022

Diamond Wall Stucco Systems in Noncombustible Construction

Using Diamond Wall One Coat Stucco System in Noncombustible Construction

Although Omega's Diamond Wall One Coat Stucco Systems contain combustible materials, they are still approved for use in noncombustible (Type I-IV) construction. This guide details the component options used in the noncombustible Diamond Wall assembly. Additionally, it outlines Diamond Wall's fire-resistant rated assemblies and gives examples of assemblies that are both noncombustible and fire-rated.

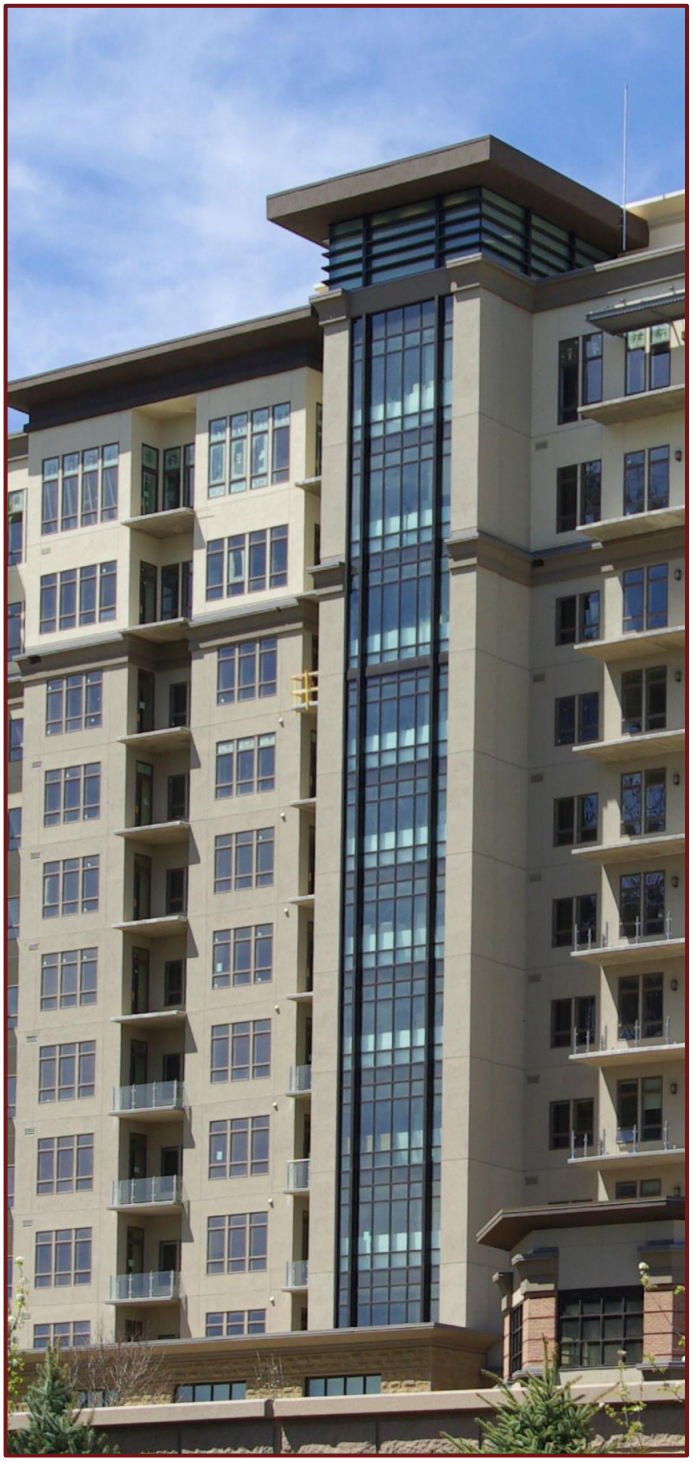


Figure 1. *Diamond Wall during NFPA 285 noncombustible fire test.*

NFPA 285 Fire-Tested Assemblies

The International Building Code (IBC) requires NFPA 285 testing for noncombustible (Type I-IV) construction when a combustible water-resistive barrier and/or foam plastics are used in wall systems. The Diamond Wall Stucco System uses both, so it must be tested. Based on testing and engineering analysis, Table 1 contains the NFPA 285 Diamond Wall assembly options. See the Appendix for additional information on NFPA 285 testing as well as indications of when an NFPA 285 test is necessary.

***Table 1**: Diamond Wall NFPA 285 noncombustible wall assembly options.*

Wall Component	Material Options
Interior Sheathing	5/8-inch Type X gypsum wallboard.
Base Wall System (Select One)	1. Fire Retardant-Treated (FRT) wood studs: 2x4 (or deeper), maximum 24 inches on center spacing. 2. Steel Stud Framing: minimum 3-5⁄8" depth, minimum 20 gauge, maximum 24 inches on center spacing, with lateral bracing every 4 ft. vertically. 3. Concrete: cast-in-place or pre-cast, minimum 2 inches thick. 4. Concrete Masonry Units: minimum 4 inches thick.
Floor Line Firestopping (Select One)	1. If a fire-resistant-rated floor or floor/ceiling assembly is required, install an ASTM E2307 rated fire stop joint assembly. 2. Install 4 inch, 4 pcf density mineral wool fire stop friction fit or installed with Z-clips or equivalent, continuously at each floor line and/or in each stud cavity if the stud framing is continuous past the floor line. 3. FRT lumber - 1.5 inch thick (min).
Cavity Insulation (Select One)	1. None 2. Use any noncombustible cavity insulation (faced or unfaced) complying with the applicable code, including mineral fiber or fiberglass batt insulation.
Vapor Retarder (Select One)	1. None 2. Any thin plastic Class I or foil vapor retarder may be used in the stud cavity.
Exterior Sheathing (Select One)	1. Minimum ½" exterior grade gypsum sheathing complying with the applicable code. 2. 5/8" Type X exterior grade gypsum sheathing complying with the applicable code. 3. Minimum ½" Fire Retardant-Treated (FRT) plywood sheathing complying with the applicable code. Note: A layer of FRT wood sheathing may be used between the gypsum sheathing and studs.
Water-Resistive Barrier (Select One)	1. Omega AkroGuard Air and Water-Resistive Barrier System. 2. Minimum No. 15 asphalt nonperforated felt complying as Type I in accordance with ASTM D226. 3. Any WRB which has been tested per ASTM E1354 (at a minimum of 50 kW/m^2) and shown by analysis to be less flammable than the tested WRB may be substituted.
Rigid Foam Board (Select One)	1. None 2. EPS board with a nominal density of 1.5 pounds per cubic foot (24 kg/m^3), a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 2-inch. 3. XPS board with a nominal density of 1.5 pounds per cubic foot (24 kg/m^3), a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type IV, V, or X. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 2-inch. 4. Polyisocyanurate foam plastic board must comply with ASTM C1289 as Type II, have a nominal density of 2 pounds per cubic foot (32 kg/m^3), a maximum flame-spread index of 25 or less, and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 2-inch.
Lath (Select One)	Lath Specifications: 1. Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel per ASTM C1032 2. Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel per ASTM C1032. 3. Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel per ASTM C933. 4. Metal Lath: Per ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable. Lath fastener for wood framing: 1. No. 10 woodscrews with a minimum .43-inch diameter head or washer. 2. No. 11 gauge galvanized roofing nails. 3. No. 16 gauge corrosion-resistant staples with a minimum crown width of 7/16 inch (11.1 mm). Fasteners shall be spaced a maximum of 6 inches (152 mm) on center with a minimum 1-inch (25 mm) penetration into the studs. Lath fastener for steel studs: 1. No. 10 self-tapping screws with a minimum .43-inch diameter head or washer. Screw length shall be sufficient to penetrate the framing member a minimum of 1/2-inches.
Stucco	Minimum 3/8-inch Diamond Wall stucco
Finish	Acrylic or cement-based finish

Notes:

1. Rough openings for the NFPA 285 assembly must have minimum 25-gauge steel flashing or equivalent enclosing the perimeter of the opening, including the header. The rigid foam board must be terminated with a minimum 25-gauge steel casing bead to encapsulate the foam board.

1-Hour Fire-Resistance Rated Assemblies

Wall assemblies often must have a fire-resistance rating. A fire-resistance rating is different from being noncombustible. A fire-rated wall is designed to restrict the spread of a fire for a certain period of time. These walls are tested per ASTM E119 *Standard Test Methods for Fire Tests of Building Construction and Materials*, which evaluates the duration for which the types of building elements contain a fire, retain their structural integrity, or exhibit both properties during a predetermined test exposure. Based on how long the wall can withstand the test exposure, the assembly will be given a 1-hour, 2-hour, or 3-hour rating.

Diamond Wall Stucco Systems have successfully passed ASTM E119 tests and have five proprietary one-hour fire-resistance rated assemblies. These assemblies can be found in Section 4.4 of the Diamond Wall ICC-ES ESR-1194 report and are listed in Table 2. Diamond Wall can also be applied over other fire-rated assemblies without adversely affecting the rating. For example, Diamond Wall could be applied over fire-rated assemblies from the Gypsum Association GA-600 Fire Resistance and Sound Control Design Manual. See Appendix A3 for additional information on generic fire-rated assemblies.

***Table 2**: Diamond Wall proprietary one-hour fire-resistance rated assemblies. The values in the blue colored cells differ from the values of the majority of assemblies.*

Wall Component	Assembly 1	Assembly 2	Assembly 3	Assembly 4	**Assembly 5**
Interior Sheathing	5/8-inch Type X gypsum wallboard	5/8-inch Type X gypsum wallboard	5/8-inch Type X gypsum wallboard	5/8-inch Type X gypsum wallboard	5/8-inch Type X gypsum wallboard
Base Wall System (Select One)	Wood studs - 2x4, 24 o.c. max	Wood studs - 2x4, 16 o.c. max	Wood studs - 2x4 or 2x6, 24 o.c. max	Wood studs - 2x4 or 2x6, 24 o.c. max	Wood studs - 2x4 or 2x6, 24 o.c. max
Cavity Insulation (Select One)		Mineral wool insulation batts, R-13, 35/8 inches thick and having a minimum 1.97 pcf	Insulation batts, R-11, measuring 3-1/2 inches thick for 2-by4 studs, or R-19, measuring 6¼ inches for 2-by-6 studs; fiberglass insulation batts with a minimum density of 0.62 pcf, or kraft-paper-faced fiberglass insulation batts with a minimum density of 0.65 pcf.	Insulation batts, R-11, measuring 3-1/2 inches thick for 2-by4 studs, or R-19, measuring 6¼ inches for 2-by-6 studs; fiberglass insulation batts with a minimum density of 0.62 pcf, or kraft-paper-faced fiberglass insulation batts with a minimum density of 0.65 pcf.	Insulation batts, R-11, measuring 3-1/2 inches thick for 2-by4 studs, or R-19, measuring 6¼ inches for 2-by-6 studs; fiberglass insulation batts with a minimum density of 0.62 pcf, or kraft-paper-faced fiberglass insulation batts with a minimum density of 0.65 pcf.
Exterior Sheathing (Select One)	5/8" Type X exterior grade gypsum sheathing complying with the applicable code.	None	None	One layer of minimum 7/16-inch thick OSB, one layer of minimum 15/32-inch-thick plywood, or one layer of minimum 1/2-inch-thick water-resistant core treated gypsum sheathing complying with ASTM C79 or ASTM C1396	One layer of minimum 7/16-inch thick OSB, one layer of minimum 15/32-inch-thick plywood, or one layer of minimum 1/2-inch-thick water-resistant core treated gypsum sheathing complying with ASTM C79 or ASTM C1396
Water-resistant Barrier (Select One)	Code approved WRB	Code approved WRB	Code approved WRB	Code approved WRB	Code approved WRB
Rigid Foam Board (Select One)	None	EPS board with a nominal density of 1.5 pounds per cubic foot, a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 1-inch.	EPS board with a nominal density of 1.5 pounds per cubic foot, a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 1-inch.	None	EPS board with a nominal density of 1.5 pounds per cubic foot, a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 1-inch.
Lath	1.Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2.Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3.Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4.Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.	1.Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2.Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3.Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4.Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.	1.Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2.Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3.Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4.Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.	1.Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2.Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3.Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4.Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.	1.Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2.Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3.Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4.Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.
Stucco	Minimum 3/8-inch Diamond Wall stucco	Minimum 3/8-inch Diamond Wall stucco	Minimum 3/8-inch Diamond Wall stucco	Minimum 3/8-inch Diamond Wall stucco	Minimum 3/8-inch Diamond Wall stucco
Finish	Acrylic or cement-based finish	Acrylic or cement-based finish	Acrylic or cement-based finish	Acrylic or cement-based finish	Acrylic or cement-based finish

Assemblies Meeting Both NFPA 285 and Fire Resistance Ratings

Most Type I-IV noncombustible buildings also require the walls to have a fire-resistance rating. While noncombustible and fire-rated assemblies can be similar, they often have important differences. When designing walls that must meet both requirements, each component in the wall must be selected to meet or exceed both tested assemblies. Sometimes the noncombustible assembly will drive the selection, but more frequently it will be the fire-rated assembly.

Possible Diamond Wall assemblies that are both noncombustible and have a fire-resistance rating are shown in Table 3. These assemblies are combinations of Tables 1 and 2. The design professional will need to verify the local code requirements and determine the final components used in the wall assemblies.

***Table 3**: Possible Diamond Wall assemblies that are both noncombustible and have a fire-resistance rating.*

Wall Component	Type III (FRT Wood Framing)	Type I or II
Interior Sheathing	5/8-inch Type X gypsum wallboard (See Note 1)	5/8-inch Type X gypsum wallboard OR the fire-resistant rated assembly's requirements, whichever is more restrictive
Base Wall System (Select One)	Fire-retardant treated (FRT) wood studs - 2x4 or 2x6, 24 o.c. max	Steel Stud Framing: minimum 3-5⁄8" depth, minimum 20 gauge, maximum 24 inches on center spacing, with lateral bracing every 4 ft. vertically OR the fire-resistant rated assembly's requirements, whichever is more restrictive
Cavity Insulation (Select One)	Insulation batts, R-11, measuring 3-1/2 inches thick for 2-by-4 studs, or R-19, measuring 6¼ inches for 2-by-6 studs; fiberglass insulation batts with a minimum density of 0.62 pcf, or kraft-paper-faced fiberglass insulation batts with a minimum density of 0.65 pcf.	Depends on the fire-resistant rated assembly's requirements
Exterior Sheathing (Select One)	1. Minimum ½" exterior grade gypsum sheathing complying with the applicable code. 2. 5/8" Type X exterior grade gypsum sheathing complying with the applicable code. 3. Minimum ½" Fire Retardant-Treated (FRT) plywood sheathing complying with the applicable code. Note: A layer of FRT wood sheathing may be used between the gypsum sheathing and studs.	Minimum 1/2" exterior grade gypsum sheathing complying with the applicable code OR the fire-resistant rated assembly's requirements, whichever is more restrictive
Water-resistant Barrier (Select One)	1. Omega AkroGuard 2. Any WRB which has been tested per ASTM E1354 (at a minimum of 50 kW/m2) and shown by analysis to be less flammable than the tested WRB may be substituted.	1. Omega AkroGuard 2. Any WRB which has been tested per ASTM E1354 (at a minimum of 50 kW/m2) and shown by analysis to be less flammable than the tested WRB may be substituted.
Rigid Foam Board (Select One)	1. None 2. EPS board with a nominal density of 1.5 pounds per cubic foot (24 kg/m3), a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 1-inch.	1. None 2. EPS board with a nominal density of 1.5 pounds per cubic foot (24 kg/m3), a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL723; and must comply with ASTM C578 as Type II. All boards must be recognized in a current third-party evaluation report. Board thickness shall be .5 to 1-inch.
Lath	1. Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2. Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3. Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4. Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.	1. Woven Wire (20-gauge): Nominal No. 20 gauge [0.035 inch], 1-inch opening, galvanized steel complying with ASTM C1032. 2. Woven Wire (17-gauge): Nominal No. 17 gauge [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032. 3. Welded Wire: Nominal No. 16 gauge [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933. 4. Metal Lath: Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable.
Stucco	Minimum 3/8-inch Diamond Wall stucco	Minimum 3/8-inch Diamond Wall stucco
Finish	Acrylic- or cement-based finish	Acrylic- or cement-based finish

Notes:

1. Type III construction often requires a 2-hour fire-resistant rated assembly from the interior, which necessitates two layers of 5/8-inch Type X gypsum wallboard.
2. Diamond Wall One Coat Stucco Systems do not have a proprietary fire-resistant rated assembly with steel framing. It is possible to use a generic fire-resistant assembly and apply Diamond Wall One Coat Stucco over the assembly without adversely affecting the rating. See Appendix for example generic assemblies.

Appendix

A1. NFPA 285 Information

The NFPA 285 fire test is designed to evaluate the fire propagation characteristics of exterior walls containing combustible materials. The full test method is found in NFPA 285-19 *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-loadbearing Wall Assemblies Containing Combustible Components*. The IBC/IRC require an NFPA 285 test when combustible material is used in a noncombustible wall assembly. A successful NFPA test demonstrates that the combustible material will not adversely affect the noncombustible assembly.

The test apparatus structure is two stories tall with upper and lower noncombustible rooms that are intended to simulate two stories of a multi-story building. See Figure A1.1. The wall assembly is then installed on the outer face of the rooms. A typical test wall is 14ft wide by 18ft tall and has a 30-inch by 78-inch-wide window opening centered on the lower floor. Thermocouples are placed on the exterior and interior of the wall to monitor flame spread during the test.

During the test, two burners are ignited to produce a specific time-temperature profile in the lower room and on the exterior face of the wall. See Figure A1.2. The test lasts 30-minutes, with the gas flow to the burners increasing every five minutes. Personnel monitor the flame spread visually and record the thermocouple temperature data. To pass the test, the following criteria must be met:

1. Flames shall not spread vertically 10 ft or more above the window opening as determined visually or by thermocouples located at the 10 ft level. Failure occurs when Thermocouples 11 or 14 – 17 exceed 1000 ° F.
2. Flames shall not spread (visually) horizontally 5 ft or more on either side of the centerline of the window opening.
3. Flames shall not spread inside the wall cavity as determined by thermocouples placed within the wall cavity insulation and air gaps if present. Failure occurs when Thermocouples 28, 31 - 40, or 55 - 65 and 68 - 79 exceed 750° F above ambient.
4. Flames shall not spread horizontally within the wall cavity past the interior room dimension as determined by wall cavity thermocouples. Failure occurs when Thermocouples 18 - 19, 66 - 67, or 79 - 80 exceed 750 ° F above ambient.
5. Flames shall not spread to the second-story room as determined by interior wall surface thermocouples. Failure occurs when Thermocouples 49 - 54 exceed 500 ° F above ambient.
6. Flames shall not occur in the second story (visually).
7. Flames shall not escape (visually) from the interior to the exterior at the wall/wall intersection of the bottom story room.

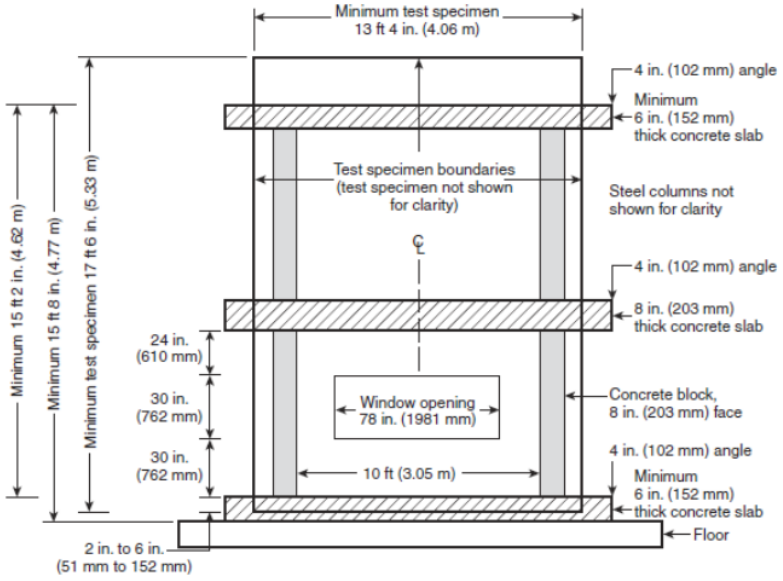


Figure A1.1. *Front view of test apparatus structure (not to scale).*

A1. NFPA 285 Information (continued)

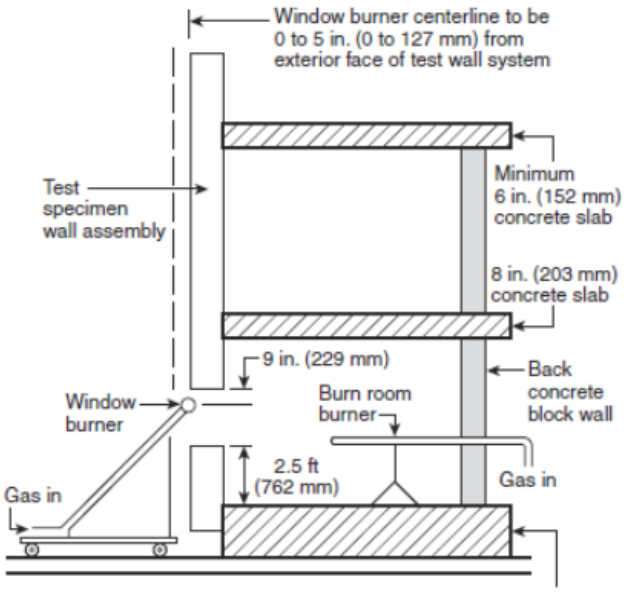


Figure A1.2. *Section view of burner placements (not to scale).*

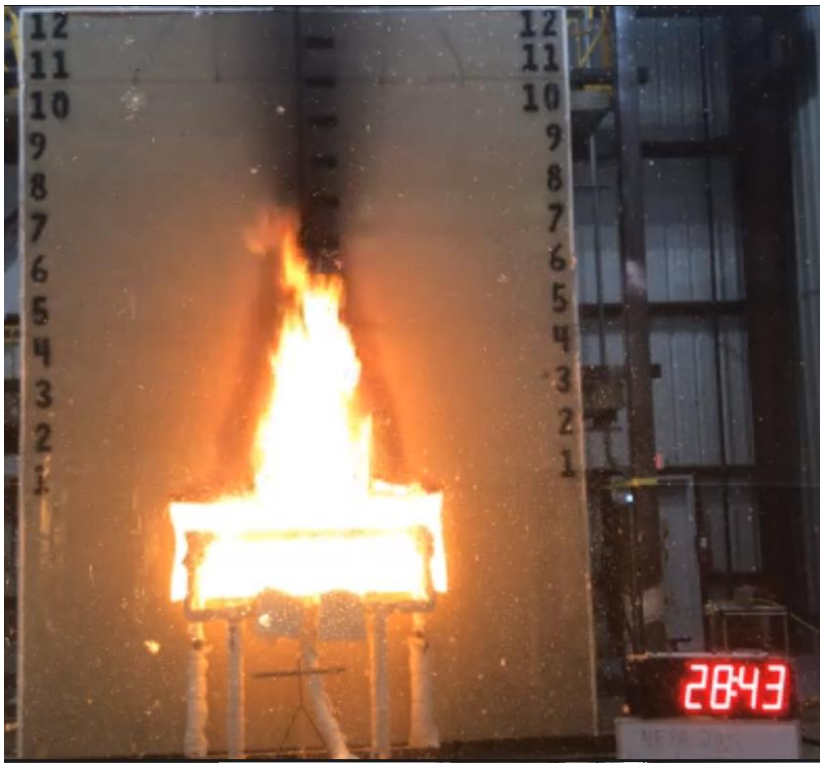
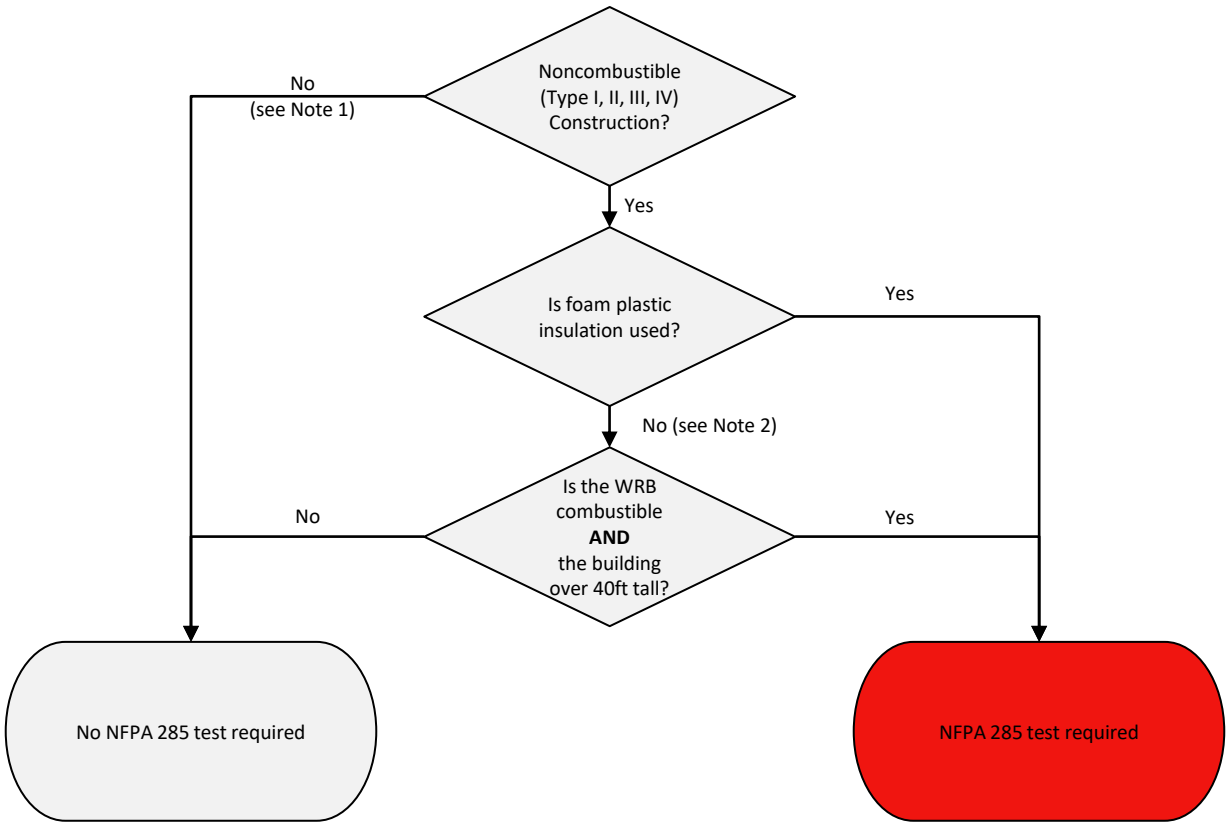


Figure A1.3. *Diamond Wall NFPA 285 test assembly during testing.*

A2. When is NFPA 285 Required?

Determining when the IBC requires an NFPA 285 test can be confusing. Below is a flowchart that can be used to decide if an NFPA 285 test is required when using the Diamond Wall One Stucco Systems. The chart does not include all the NFPA 285 scenarios listed in the IBC, but it does have the relevant conditions to Diamond Wall.



Notes:

1. Type V construction does not require NFPA 285 testing. Wood-framed, combustible construction is all Type V construction, so most residential and light commercial projects do not require NFPA 285 tests even when using foam insulation.
2. ICC added the requirement to conduct NFPA 285 tests when a noncombustible building is over 40 feet tall and has a combustible water-resistive barrier in the 2012 IBC. Since almost all WRBs are combustible, this significantly increased the number of buildings needing an NFPA 285 test. The 2015 IBC added exceptions to this requirement, but those exceptions are not applicable to one coat stucco (the exception requires the stucco to be 7/8-inches thick).

Figure A2.1. *Flowchart to determine if an NFPA test is required when using Diamond Wall One Coat Stucco Systems.*

A3. Generic Fire-Rated Assemblies

Below are some examples of generic fire-resistant rated assemblies that can be used in noncombustible construction and have Diamond Wall installed over the exterior without adversely affecting the rating. There are many other options listed in the IBC, Gypsum Association GA-600 Fire Resistance and Sound Control Design Manual, UL, and other sources.

13. Noncombustible studs-interior partition with gypsum wallboard each side	13-1.1	0.018" (No. 25 carbon sheet steel gage) channel-shaped studs 24" on center with one full-length layer of ⅝" Type X gypsum wallboard[e] applied vertically attached with 1"-long No. 6 drywall screws to each stud. Screws are 8" on center around the perimeter and 12" on center on the intermediate stud. Where applied horizontally, the Type X gypsum wallboard shall be attached to 3⅝" studs and the horizontal joints shall be staggered with those on the opposite side. Screws for the horizontal application shall be 8" on center at vertical edges and 12" on center at intermediate studs.	—	—	—	2⅞[d]
	13-1.2	0.018" (No. 25 carbon sheet steel gage) channel-shaped studs 25" on center with two full-length layers of ½" Type X gypsum wallboard[e] applied vertically each side. First layer attached with 1"-long, No. 6 drywall screws, 8" on center around the perimeter and 12" on center on the intermediate stud. Second layer applied with vertical joints offset one stud space from first layer using 1⅝" long, No. 6 drywall screws spaced 9" on center along vertical joints, 12" on center at intermediate studs and 24" on center along top and bottom runners.	—	—	3⅝[d]	—
	13-1.3	0.055" (No. 16 carbon sheet steel gage) approved nailable metal studs[e] 24" on center with full-length ⅝" Type X gypsum wallboard[e] applied vertically and nailed 7" on center with 6d cement-coated common nails. Approved metal fastener grips used with nails at vertical butt joints along studs.	—	—	—	4⅞

Figure A3.1. *Example fire-rated assemblies from IBC Table 721.1(2).*

GA-600-2012 FIRE RESISTANCE DESIGN MANUAL 35

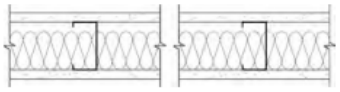
WALLS AND INTERIOR PARTITIONS, NONCOMBUSTIBLE

GA FILE NO. WP 1070	GENERIC	1 HOUR FIRE	45 to 49 STC SOUND

GYPSUM WALLBOARD, STEEL STUDS, MINERAL FIBER INSULATION

One layer 1/2" type X gypsum wallboard or gypsum veneer base applied parallel to each side of 2½" steel studs 24" o.c. with 1" Type S drywall screws 8" o.c. at vertical joints and 12" o.c. at intermediate studs. 2" mineral fiber insulation, 2.5 pcf, friction fit in stud space. Also fire tested with 1½" mineral fiber insulation, 3.0 pcf, stapled to board in stud space.

Joints staggered 24" on opposite sides. **(NLB)**



Thickness: 3½"
Approx. Weight: 5 psf
Fire Test: FM WP 51-1, 9-22-66; OSU T-3362, 11-23-65
Sound Test: RAL TL69-42, 10-17-68

Figure A3.2. *Example WP 1070 fire-rated assembly from the Gypsum Association GA-600 Fire Resistance and Sound Control Design Manual.*

Technical Assistance

Technical assistance and information is available by calling Omega Products International, Inc. at (800) 600-6634 or FAX (951) 520-2594 or by e-mail at "info@omega-products.com".