NFPA 285 Wall Assembly
DuPont™ ArmorWall Plus Fire-Rated Structural Insulated Sheathing™

The following table is a summary of various ArmorWall assemblies that have been tested, engineered, and approved to the requirements of NFPA 285 and Chapters 14 and 26 of the International Building Code.

Base Wall System	
Use either 1, 2, 3, 4, 5, or 6.	1. Concrete Base Wall.
	2. CMU Base Wall.
	3. One layer of 5/8″ Type X gypsum wallboard installed on the interior side of minimum 3 5/8″ deep, minimum 20 GA. galvanized steel studs spaced a maximum of 24″ O.C.
	4. One layer of 1/2″ MgO wallboard installed on the interior side of minimum 3 5/8″ deep, minimum 20 GA. galvanized steel studs spaced a maximum of 24″ O.C.
	5. FRT wood studs spaced maximum of 24″ O.C. with 5/8″ Type X gypsum wallboard installed on the interior side.
	6. FRT wood studs spaced maximum of 24″ O.C. with 1/2″ MgO wallboard installed on the interior side.
Floorline Fire-stopping to Back Edge of Insulation Layer	
Use either 1 or 2.	1. 4″ 4 pcf mineral wool (friction fit or installed with Z-Clips).
	2. FRT lumber - 1 1/2″ thick minimum.
Cavity Insulation	
Use either 1, 2, or 3.	1. None.
	2. Full or partial fill mineral wool.
	3. Full or partial fill fiberglass batts.
Composite Exterior Sheathing	
Use either 1, 2, or 3.	1. Maximum 3 3/4″ thick ArmorWall Plus installed vertically or horizontally and attached direclty to Base Wall System with insulation facing inward. Installed with a minimum #14-13 DP1 screws spaced 12″ O.C. vertically maximum at every stud.
	2. Maximum 4 1/4″ thick ArmorWall Plus SP Stuctural Insulated Sheathing™ installed vertically or horizontally and attached direclty to Base Wall System with insulation facing inward. Installed with a minimum #14-13 DP1 screws spaced 12″ O.C. vertically maximum at every stud.
	3. Maximum 3 3/4″ thick ArmorWall Plus HD Stuctural Insulated Sheathing™ installed vertically or horizontally and attached direclty to Base Wall System with insulation facing inward. Installed with a minimum #14-13 DP1 screws spaced 12″ O.C. vertically maximum at every stud.
WRB Over Composite Exterior Sheathing	
Use either 1 or 1 and 2 together.	1. It is assumed that the ArmorWall panel will be covered with the factory applied ArmorSeal Plus Coating membrane to the appropriate factory thickness and ratios in all cladding applications.
	2. Dorken Systems Inc.: Delta Dry & Lathe (allowable only with Cladding #2 or #7).
Sheathing Joints and Flashing of Panel Seams	
Use either 1 or 2.	1. MaxLife ArmorWall Plus Fire-Rated Structural Insulated Sheathing™ with fully embedded MaxLife ArmorSeal Mesh Reinforcement in basecoat and topcoat of MaxLife ArmorSeal Plus Coating.
	2. MaxLife ArmorSeal Sealant covering all vertical and horizontal joints and fastener heads with minimum of 1″ embedment on either side of each joint.
Exterior Cladding	
Use either 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 or 27.	1. Brick - nominal 4″ clay or concrete brick or veneer with maximum 24″ air gap behind the brick. Brick ties/anchors 2″ O.C. maximum.
	2. Stucco - minimum 3/4″ thick exterior cement plaster and lath. For systems that require a more durable WRB system, any building wrap or 15# felt that is not self-adhered asphalt or butyl based can be used as a slip sheet between the WRB and the lath.
	3. Limestone - minimum of 2″ thick using any standard non-open joint installation technique such as shiplap.
	4. Natural Stone Veneer - minimum 2″ thick using any standard non-open joint installation technique such as grouted/mortared stone.
	5. Cast Artificial Stone - minimum 1 1/2″ thick complying with ICC-ES AC 51 using any standard non-open joint installation technique such as shiplap.
	6. Terra Cotta Cladding - minimum 1 1/4″ thick (solid or equivalent by weight) using any standard non-open joint installation technique such as shiplap.
	7. Thin brick/cultured stone set in thin-set adhesive and metal lath that has been tested to ASTM E119 (brick exposed to furnace) and remains in place for a minimum of 30 minutes, or has passed an NFPA 285 test. Minimum 3/4″. For systems that require a more durable WRB system, any building wrap or 15# felt that is not self-adhered asphalt or butyl based can be used as a slip sheet between the WRB and the lath.
	8. TABS II Panel System with 1/2″ thick bricks using TABS Wall Adhesive.
	9. IQBrick™ thin brick panel system by MaxLife Industries.
	10. Any MCM/ACM that has successfully passed NFPA 285.
	list continues on next page…

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Exterior Cladding	
Use either 1 , 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, or 27.	*…list continued from previous page.* 11. Uninsulated sheet metal building panels including steel, copper, aluminum. 12. Uninsulated fiber-cement siding. 13. Stone/Aluminum honeycomb composite building panels that have successfully passed NFPA 285 criteria. 14. Autoclaved-aerated concrete (AAC) panels that have successfully passed NFPA 285 criteria. 15. Terra Cotta Cladding - any rain-screen terra cotta (min. 1/2″ thick) with ventilated shiplap. 16. StonePeak Ceramics Granitech Ventilated Façade System with Exposed Fastening as described in Report K1291.01-121-24. 17. 10 mm Stonewood (also called ICC-ES Stonewood) for exposed and concealed fastener systems. Limitations to a maximum 1″ air gap and must use cladding fire stopping per manufacturer's tested details. 18. 8 mm or 10 mm Max Exterior F Quality FunderMax Panels exposed fastener systems with a maximum 1″ air gap. Contact FunderMax and MaxLife technical services prior to further design installation limitations. 19. 10 mm Max Exterior F Quality FunderMax Panels concealed fastener systems with a maximum 1 1/2″ air gap. Contact FunderMax and MaxLife technical services prior to further design installation limitations. 20. Modulo Max Exterior Modulo ME05 Panels by FunderMax Panels. Contact FunderMax and MaxLife technical services prior to further design installation limitations. 21. StonePeak Ceramics Granitech Ventilated Façade System with Exposed Fastening as described in Report K1291.01-141-24. 22. Parklex Façade F8 mm Exposed Fastener. 23. Previously passed NFPA 285 EIFS system with channel adhesion or mechanical attachment to ArmorWall VP system. 24. Steni 6 mm Stone Composite Panel. 25. 5/16″ Omnis Petrarch [Face Fastened (Exposed Fastener)]. 26. 10 mm Omnis Petrarch (Concealed Fastened) with two TenMat VFB firebreaks (1 meter and 3 meters above window) with 5/8″ gypsum board flashing around the window (except sill). 27. IMOLA Tecnica-IT S Panels.
Window Perimeter	
Use either 1, 2, 3, 4, or 5.	1. Minimum 1/2″ thick composite exterior sheathing, MgO, attached with 1 1/4″ long, Type S stainless steel screws, spaced max 2″ from corners and max 12″ OC to window studs to line window opening, covering full depth of exterior wall. 2. Minimum 1/2″ thick composite exterior sheathing, MgO, attached with two ribbons of polyether adhesive, running continous across entire span of window opening to line window opening, covering depth of composite exterior insulated sheathing only leaving no foam exposed. 3. When using steel stud walls, base wall window perimeter may be 20 GA C channel to line window perimeter of opening, covering depth of composite exterior insulated sheathing leaving no foam exposed. 4. When using FRT stud walls, base wall window perimeter may be FRT to line window perimeter of opening, covering depth of composite exterior insulated sheathing leaving no foam exposed. 5. When using concrete or CMU walls, steel or FRT framing may be added to wall window perimeter to line window perimeter of opening, covering depth of composite exterior insulated sheathing leaving no foam exposed.
Pre-panelized Construction Panel Seaming	
Use either 1 or 2.	1. Seams connecting two large prefabricated panels shall sandwich 2″ depth of 4 pcf mineral wool. Then cover joint with maximum 6″ wide seam tape. 2. Seams connecting two large prefabricated panels shall install two continuous sealants consisting of noncombustible backer rod (such as 3M PM4) and sealed with Class A Silicone Building Sealant per ASTM E84.