## NFPA 285 Wall Assembly
### ArmorWall Non-Coated (NC) 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.

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<tr>
<th>WALL COMPONENTS</th>
<th>MATERIALS</th>
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| Base Wall System | 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 | 1. 4” 4 pcf mineral wool (friction fit or installed with Z-Clips).  
2. FRT lumber - 1 1/2” thick minimum. |
| Cavity Insulation | 1. None.  
2. Full or partial fill mineral wool.  
3. Full or partial fill fiberglass batts. |
| Composite Exterior Sheathing | 1. Maximum 3 3/4” thick ArmorWall NC installed vertically or horizontally and attached directly to Base Wall System with insulation facing inward. Installed with a minimum #14-13 D11 screws spaced 12” O.C. vertically maximum at every stud.  
2. Maximum 4 1/4” thick ArmorWall SP-NC Structural Insulated Sheathing™ installed vertically or horizontally and attached directly to Base Wall System with insulation facing inward. Installed with a minimum #14-13 D11 screws spaced 12” O.C. vertically maximum at every stud.  
3. Maximum 3 3/4” thick ArmorWall HD-NC Structural Insulated Sheathing™ installed vertically or horizontally to Base Wall System with insulation facing inward. Installed with a minimum #14-13 D11 screws spaced 12” O.C. vertically maximum at every stud. |

**WRB Over Composite Exterior Sheathing**

| Use either 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, or 19. | 1. Carlisle: Fire Resist 705 RS, Fire Resist Barrithane VP, Fire Resist 705 VP (with either 702 WB, CAV-Grip, or Low VOC Travel-Tack adhesives), Fire Resist 705 FR-A (with CCW 702, 702LV, 702WB, CAV-Grip, and Low VOC Travel Tack adhesives), Fire Resist Barritech VP, Fire Resist Barritech VP LT, Fire Resist Barritech NP, (3” AlumaGRIP 701 or 4” F-1402 joint tape may be interchanged).  
2. Dorken Systems Inc.: Delta-Vent SA, Delta-Vent S, Delta-Fassade S, Delta Dry & Lathe (allowable only with Cladding #2 or #7).  
4. Dryvit: BackStop NT.  
6. GE Momentive: SEC 2500 SilShield.  
9. MaxLife Industries: ArmorSeal VP, ArmorSeal NP.  
10. Pecora: XL Perm Ultra VP.  
11. PolyGuard: Air Lok Flex VP, FlexGuard, Air Look Flex (Claddings 1-6 only).  
12. Prosoco: R-Guard VB, R-Guard Cat 5, R-Guard Cat 5 Rain Screen, SprayWrap MVP, SprayWrap RS.  
13. Siga: Majvest (for all claddings) or Majvest 500 SA (only with claddings 1-6).  
16. Tyvek Commercial Wrap.  
17. VaproShield: WrapShield SA, RevealShield SA.  
18. WR Meadows: Air Shield LMP (gray), Air Shield LMP (black), Air Shield TMP, Air Shield LSR, Air Shield SMP.  
19. Approved EIFS WRB (only for use with EIFS cladding #16). |

It should be noted that any field application of the WRB should have a field test sample applied first to ensure proper conditions and adhesion are acceptable. Additional acceptance and approvals may be required by the WRB manufacturer to ensure their individual warranty compliance.
## WALL COMPONENTS & MATERIALS

### Exterior Cladding
Use either 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16.

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.
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. NFPA 285 approved EIFS (only with the WRB approved for the specific EIFS system).

### Window Perimeter
Use either 1, 2, 3, 4, or 5.

1. Minimum 1/2” thick composite exterior sheathing, MgO, attached with 11/4” long, Type S stainless steel screws, spaced max 2” from corners and max 12” O.C. 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 continuous 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.