MAXLIFE INDUSTRIES
INNOVATING THE BUILDING ENCLOSURE

ArmorWall SP-VP

Structural Insulated Sheathing

Symmetrical Panel with ArmorSeal Vapor Permeable

PRODUCT DESCRIPTION

ArmorWall interior/exterior wall sheathing is a UL Classified and tested, high strength, fire resistant exterior insulated wall sheathing product, commonly referred to as an SIS (structural insulated sheathing) panel. MaxLife's technology fuses a structural element to the exterior face of our fused insulation layer which modernizes the installation of commercial and residential wall assemblies. This innovation allows the designer to re-implement legacy design or frees them to wider creativity while maintaining wall construction speed, efficiency, and code compliance.

ArmorWall SP (Symmetrical Panel) is unique because, unlike all the other ArmorWall products offered, ArmorWall SP has an additional layer of sheathing on the interior face encompassing the rigid foam insulation. ArmorWall SP-VP panels are factory-coated with ArmorSeal VP.

PRODUCT ADVANTAGES

Fusion Technology – MaxLife's patented technology fuses component materials rather than laminating which allows for greater strength, no delamination in the field, a longer lasting product with greater weatherability. Fusion manufacturing of ArmorWall allows multiple finish veneers to be mechanically attached directly to the exterior sheathing panel rather than requiring a fastener to fully penetrate the layer into the stud beyond. This allows less leakage potential and less thermal loss from fastener penetration found in traditional wall assemblies.

NFPA 285 Approved – ArmorWall (UL System No. EWS0043) allows the designer to utilize one product with multiple finish veneers and factory-coated or non-factory coated water-resistant membrane options on a single building in which all walls would be NFPA 285 compliant and approved. ArmorWall's tested traits and capabilities allow the designer more flexability than ever seen before in the industry.For a current list of all 285 assemblies see the guides in the downloads section at www.maxlifeinsutries.com.

Symmetrical Design – Combined with the ArmorWall ease of installation and project labor reduction, the SP design allows for a single pass 2-hour fire rating. SP is found and excells as part of the assembly in plenum and works well with core and shell building.

Vapor Permeable – A factory-applied self-healing vapor permeable air barrier membrane (ArmorSeal VP), along with the natural permeability of the sheathing itself, allows for any moisture to drive to the exterior face after installation up to and during the construction phase.

Structural Rack & Shear – Testing by ASTM E72 demonstrates ArmorWall to be stronger than many other sheathing and wood products when attached directly to the stud with no required interior blocking.

Panelized Construction – ArmorWall is ideal for handling the stress of factory-built wall assembly manufacturing process, including movement within the factory, deflection during transportation to the job site, and racking during wall erection. Self-adhered membranes have tremendous adhesion to the ArmorWall surface allowing flexibility of panelized wall assemblies further yielding ease of connecting control-layers upon installaltion to adjacent factory-built panels at installation.

Multi-Component Reduces Labor - ArmorWall combines multiple control layers of a wall assembly including structural, thermal, and air; into a one-step application which can be installed either vertically or horizontally. This one-step approach allows installation up to 3-5 times faster on the construction site saving time and money.

Mold & Mildew Resistant – No components exist within the product to allow any growth of mold or mildew as tested by ASTM C1338 and meet FEMA design standards for flood resistant materials.

PRODUCT LIMITATIONS

- Do not install ArmorWall SP below grade. For these applications see ArmorWall BG.
- For required NFPA 285 ratings, ArmorWall Return must be utilized at rough openings. Contact Customer Services for further details.
- Direct applied adhered masonry and stucco applications must follow manufacturer's installation instructions.
- Do NOT use an impact drill to fasten cladding or attachments to the panel.
- Maximum stud spacing is 16" O.C. fasteners shall be placed 12" O.C. in the field. Parallel seams to studs must fall on studs and blocking is not required.
- Do not install SPS panel directly to concrete or masonry structures.

HANDLING AND USE

ArmorWall SP can be cut and installed using standard job site hand tools. When being cut to size, avoid breathing dust and minimize contact with eyes. ArmorWall should be stored off the ground and in original shipment condition until ready for installation. Avoid ground contact or continuous exposure to moisture and direct sunlight. Some skinning and direct coloration of the insulation edges is normal if exposed to UV light prior to installation; however, it does not affect the performance of the panel. Some cupping of the panel is expected during shipment and can be rectified during installation by beginning installation from the center of the panel and working outward per the fastener standard of the designed application.

Explore our ArmorWall Solutions:

ArmorWall NC – Structural Insulated Sheathing – Non-Coated

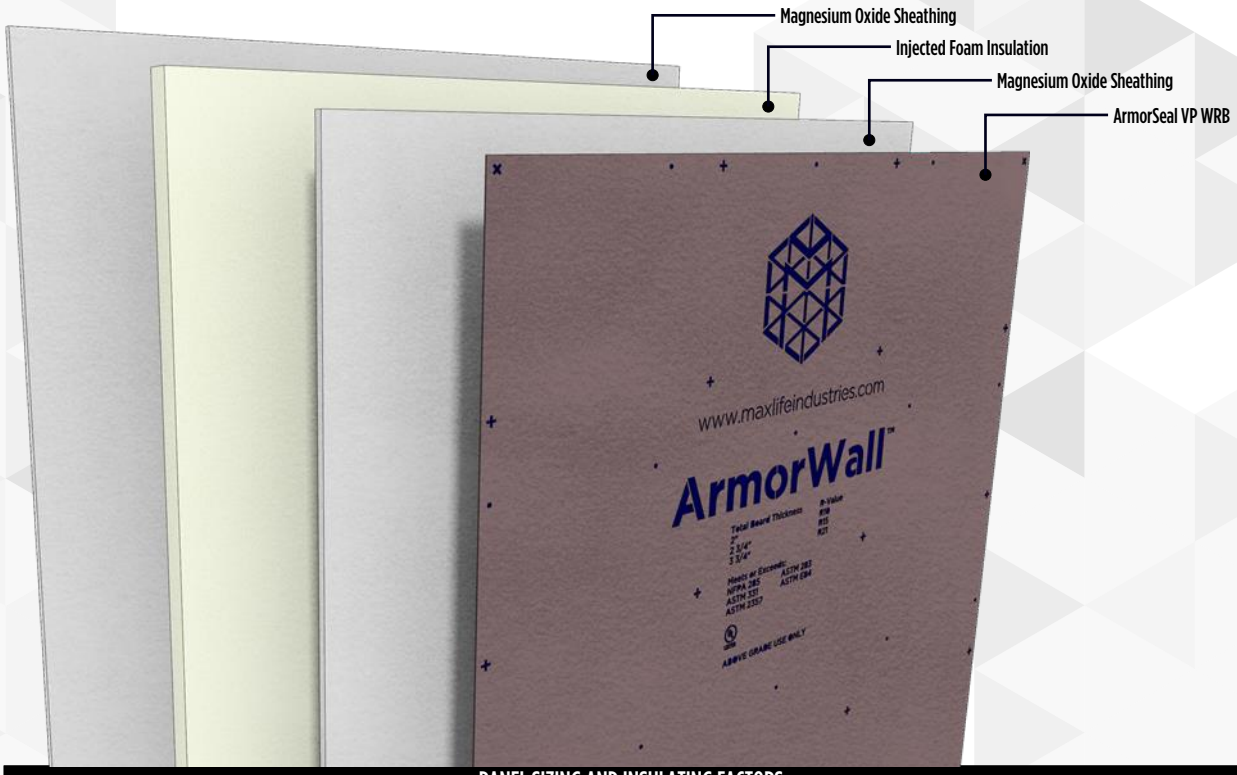
ArmorWall VP – Structural Insulated Sheathing – Vapor Permeable

ArmorWall NP – Structural Insulated Sheathing – Non Permeable

ArmorWall PB – Structural Insulated Sheathing – PermaBase

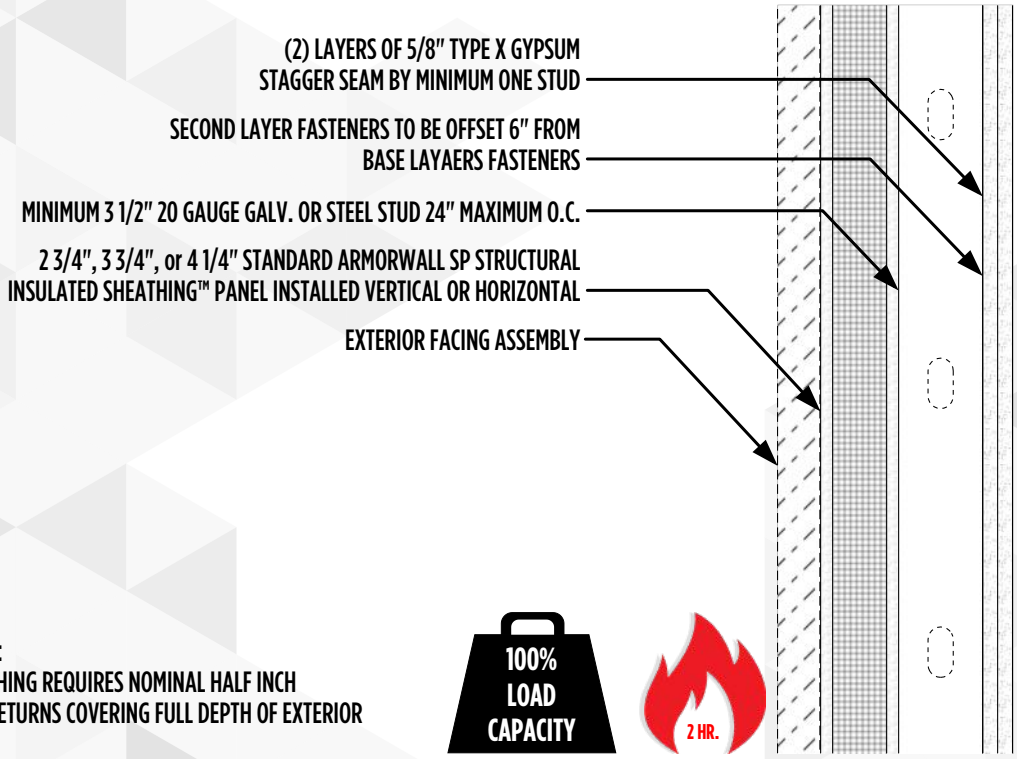
ArmorWall BG – Structural Insulated Sheathing – Below Grade

ArmorWall SP-NC-VP-NP – Structural Insulated Sheathing – Symmetrical Panel



PANEL SIZING AND INSULATING FACTORS						
Panel Coverage	Total Panel Thickness	Sheathing Thickness	Insulation Thickness	R-Value	Weight*1	SKU#
48"x96" (32sqft/sheet)	2 3/4"	1/2" + 1/2"	1 3/4"	R11	185 lbs	AVP234096SP
48"x96" (32sqft/sheet)	3 3/4"	1/2" + 1/2"	2 3/4"	R17	199 lbs	AVP334096SP
48"x96" (32sqft/sheet)	4 1/4"	1/2" + 1/2"	3 1/4"	R21	203 lbs	AVP414096SP

*1 Average panel weight may vary based upon environmental conditions.



GENERAL NOTE:
OPENING FINISHING REQUIRES NOMINAL HALF INCH ARMORWALL RETURNS COVERING FULL DEPTH OF EXTERIOR WALL.

2 Hour Symmetrical Load Bearing Steel Stud Assembly with ArmorWall SP

AIR / WATER / FIRE / THERMAL / FASTENER PROPERTIES		
Air Leakage Resistance	Pass	ASTM E2357
Air Infiltration at 75 Pa	0.01 cfm/ft^2 (0.1 L/s/m^2)	ASTM E283
Air Infiltration at 300 Pa	0.04 cfm/ft^2 (0.2 L/s/m^2)	ASTM E283
Water Penetration at 6.27 psf (300 Pa)	Pass	ASTM E331 *1
Mold and Mildew	No observed growth	ASTM C1338
Fastener Sealability *2	Pass	ASTM D1970
Fire Resistance	Pass	NFPA 285 *3
Vapor Permeance (factory-applied coating)	16 Perms (grains/hr in Hg ft^2)	ASTM E96 (Method B)
Vapor Permeance (panel)	0.5 Perms (grains/hr in Hg ft^2)	ASTM E96 (Procedure A)
Flame Spread/Smoke Developed Index (facer)	0 / 0	ASTM E84
Flame Spread/Smoke Developed Index (insulation)	20/200	ASTM E84
Thermal Resistance	6.5 per inch	ASTM C518
Foam Compression Range	38-42 psi	ASTM D1621
CLADDING ATTACHMENT FIGURES		
Fastener Withdrawal Capacity	284 lbs	ASTM D1761 *4 *5
Fastener Pull Through	505.2 lbs	ASTM D1761 *4 *5
Fastener Shear in Sheathing Only	519 lbs	ASTM D1761 *4 *5

*1 Total test duration full two continuous hours.

*2 ArmorWall VP is self-healing around cladding attachment fasteners.

*3 ArmorWall VP passes NFPA 285 attached directly to the stud framing allowing most cladding installed to its exterior as inclusive to the NFPA 285 approved assembly.

*4 Average ultimate value after thermal cycling (10 cycles) provided.

*5 Fastener data reflects attachment to the panel not attachment to structure.

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For specific inquiries regarding installation please contact MaxLife Industries Customer Services.

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MAXLIFE FUSION TECHNOLOGY