

Stucco-Shield® NH

Continuous Wall Insulation



DESCRIPTION: Atlas Stucco-Shield® NH is composed of a closed cell non-halogenated polyisocyanurate (polyiso) foam core, faced with a non-reflective coated glass-mat facer on both sides. The blowing agent used to produce the polyiso foam core does not contain any CFCs, HCFCs or HFCs. Stucco-Shield® NH has zero Ozone Depletion Potential (ODP) and negligible Global Warming Potential (GWP). Atlas Stucco-Shield® NH combines high R-value, enhanced durability from two coated glass-mat facers, and water resistive attributes in a high performance rigid wall insulation. Stucco-Shield® NH is suitable for a variety of continuous insulation (CI) applications. This product has been validated by UL Environment as resistant to mold growth based on independent testing to UL 2824.

Panel sizes are 4' by 8' or 4' by 9'. Panels can be supplied in nominal 16" and 24" widths for use in masonry cavity wall applications. Custom sizes are also available.

APPLICATION: Apply Stucco-Shield® NH directly to the exterior side of metal framing, wood framing or masonry construction.

Stucco-Shield NH less than 1" in thickness must be installed over solid backing. Use code accepted shear or corner bracing in all cases, such as 1" x 4" metal strapping or "let-in wood". Stucco-Shield NH should be installed with the longest edge in a vertical position with edges on stud centers. Stud wall spacing of 16" O.C. does not require horizontal support; however, 24" O.C. stud spacing should have a horizontal 2" x 4" at mid-height to support the Stucco-Shield NH. Each board must be attached with galvanized or other corrosion-resistant fasteners with minimum 1/4" diameter rigid washer caps. Suitable fasteners should be placed no closer than 3/8" to the perimeter edges of Stucco-Shield NH, spaced 12" O.C. on all perimeters, including the top and bottom, as well as in the field of the board. Because the washer caps may extend beyond the edge of the board, it is better to butt the second board to the first board prior to nailing either one of the adjacent edges. Do not overdrive fasteners. Smooth shank fasteners (12 gauge min.) must penetrate wood studs a minimum of 1 1/2". Wood screws and ring shank nails (12 ga. min.) must penetrate wood studs a minimum of 1". Metal studs must be penetrated 3/4" with self tapping screws.

Caulking (as specified by the EIFS system manufacturer) should be used to seal field cut irregularities at joints and around wall penetrations to ensure a closed surface for the penetrations to ensure a closed surface for the polymer stucco base coat. All requirements for control of thermal, mechanical, and/or structural movement must be as required by the synthetic stucco coatings manufacturer. Horizontal control joints are needed at floor junctures to compensate for construction lumber shrinkage. Be sure to consult the coating manufacturer.

Although Stucco-Shield NH is weather resistant, it should be coated with the system base coat within 2 weeks of installation. In the event Stucco-Shield NH becomes moist prior to application of the base coat, it must be allowed to completely air dry to ensure proper adhesion of the base coat. Keep dust and all other contaminants off the surface of Stucco-Shield NH.

Avoid unequal stress on the exterior walls by making sure all roofing materials are distributed equally on the roof and distribution of all interior gypsum board is completed prior to application of the base coat.

Atlas requires full mesh reinforcement in the base coat for best impact resistance and total system performance. Follow coating manufacturer's instructions regarding reinforcement mesh application. Expansion control joints are required at each floor level to accommodate the inherent movements of the framing materials.

STUCCO-SHIELD NH MEETS OR EXCEEDS THE FOLLOWING PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TEST METHOD MINIMUM REQUIREMENTS
FLAME SPREAD	ASTM E84	< 75
SMOKE DEVELOPMENT	ASTM E84	< 450
MOISTURE VAPOR TRANSMISSION (ASTM E96 DESICCANT METHOD)	ASTM E96	1.2 Perm at 1-inch
WATER ABSORPTION	ASTM C209	< 1% by Volume *Typical Results < 0.5% by Volume
DIMENSIONAL STABILITY	ASTM D2126	< 2% Linear Change *Typical Results < 1% Linear Change
SERVICE TEMPERATURES	-	-100°F to +250°F (-73°C to 122°C)

The physical properties listed above are presented as typical average values as determined by accepted ASTM test methods and are subject to normal manufacturing variation. This data is offered as a service to our customers and is subject to change. For questions, please contact Atlas's technical department.

THERMAL DATA

R-VALUE ^{1,2}	NOMINAL BOARD THICKNESS ³
3.0	0.5"
4.5	0.75"
6.0	1.0"
9.0	1.5"
12.1	2.0"
15.3	2.5"
18.5	3.0"
21.7	3.5"

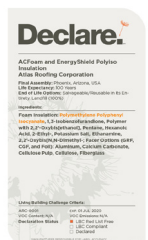
¹ Conditioned thermal values were determined by ASTM Test Method C 518 at 75° mean temperature. Test specimens were conditioned in accordance with procedures outlined in ASTM C1289, Section 11.1.2.1.

² "R" means resistance to heat flow. The higher the R-value, the greater the insulating power.

³ Other sizes available upon request. Contact your local Atlas sales office.

CODES AND COMPLIANCES

- **ASTM C1289 Type II, Class 2**
- **ASTM E84 Flame Spread**, less than 75
- **ASTM E84 Smoke Development**, less than 450
- **International Building Code (IBC)**, Section 2603
- **International Residential Code (IRC)**, Section R316
- **ASTM E2178 Air Barrier Material** - <0.04 L/(s*m2) @ 75 Pa
- **Water Resistive Barrier** ICC-ES ESR-1375
- **ASHRAE 90.1 / ASHRAE 189.1 / IECC / IGCC** Continuous Insulation Standards
- **Class III Vapor Retarder** at 1 inch (> 1.0 perm)
- **Living Building Challenge Red List Free, with Declare label and Product Database Listing**



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INSTALLATION: (HARDCOAT)

1. Stucco-Shield NH is non structural and requires diagonal corner bracing using either metal strapping or "let-in-wood".
2. Vertically install Stucco-Shield NH sheathing with minimum 1" thickness, making sure that sheathing edges bear directly on framing members and that vertical edges of abutting panels are in moderate contact with each other. Avoid horizontal joints unless sheathing edges bear on a horizontal framing member.
3. Attach lath in accordance with the hardcoat system manufacturer's recommendations, which typically require corrosion-resistant metal lath attached through to framing with $\frac{3}{8}$ " diameter head galvanized nail 1" longer than the sheathing. Space nails a maximum 6" O.C. on all framing.
4. Apply stucco in accordance with lath and stucco manufacturer's instructions.
5. Apply layers of water resistive barrier as recommended by hardcoat system manufacturer and required by codes.

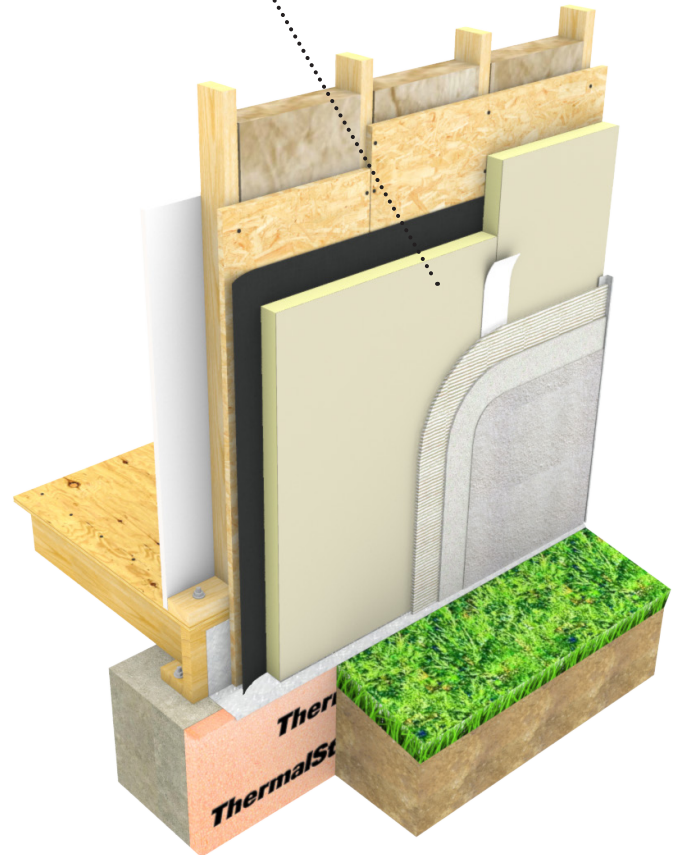
Stucco-Shield NH is an excellent choice as a substrate between a hard coat exterior stucco finish and concrete, masonry or frame wall construction using metal lath.

APPLICATION: (EIFS) EXTERIOR INSULATION AND FINISH SYSTEM

Stucco-Shield NH as used in a typically installed EIFS on wood or metal framing.

1. Install Stucco-Shield, with metal bracing or "let-in wood" for racking strength.
2. Fasten 12" O.C. with plate and fastener as approved by EIFS system manufacturer.
3. Install trims and track per EIFS system manufacturer's recommendations.
4. Full fiberglass reinforcement mesh coverage over the entire wall is required.
5. 16" O.C. stud spacing is typically recommended and 24" spacing requires a horizontal nailer between studs, at mid-height.
6. Consult EIFS system manufactures edge detail drawings for proper edge wrap treatments. Follow the EIFS system manufacturers' instructions for all edge and joint treatments.

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LOCAL Production and Support: Atlas has the largest production footprint of any polyiso manufacturer for quick access to the products you need.

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