ULTRA-GUARD EIFS™

Woodpecker-Resistant Insulated Stucco System

DESCRIPTION

Ultra-Guard EIFS is an Exterior Insulation and Finish System (EIFS) developed by Modern Wall Systems that adds a rigid **cement board impact layer** between the continuous insulation and the reinforced base coat. Standard EIFS places a thin lamina directly over soft foam, which woodpeckers can easily drill. Ultra-Guard places PermaBASE PLUS® cement board over the foam, so the finished wall face is hard and durable. The system keeps the thermal performance, drainage and stucco appearance of conventional EIFS.

BASIC USES

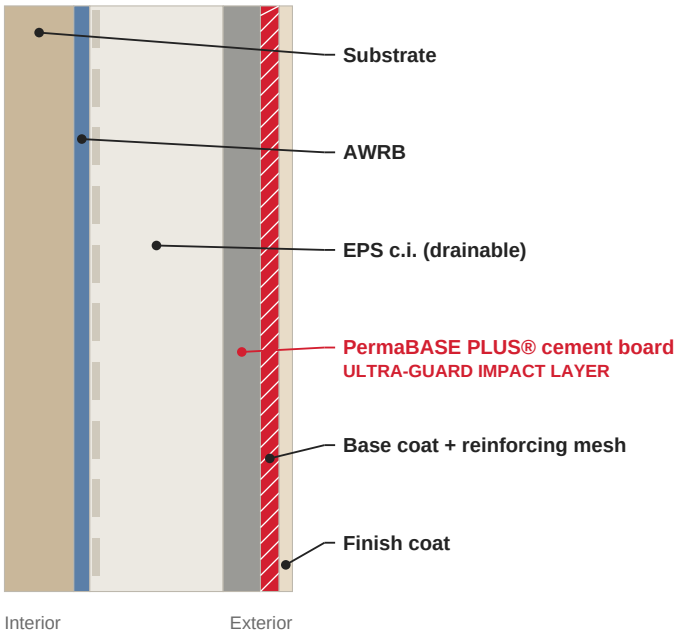
Retrofit: Repair and protection of existing EIFS walls with woodpecker damage, including chimney chases, gable ends, upper elevations and walls near wooded areas, water or open land.

New construction: Residential, multi-family and light commercial exterior walls where bird damage, impact or abuse resistance is a design concern.

ADVANTAGES

- Rigid cement board impact layer resists woodpecker drilling and everyday impact damage.
- Drainable (moisture-managed) assembly with a continuous air- and water-resistive barrier.
- Continuous insulation (c.i.) on the exterior of the substrate reduces thermal bridging.
- Same textures, colors and architectural details as conventional EIFS finishes.
- Cement board component is moisture resistant and will not rot, disintegrate or swell when exposed to water (manufacturer data).
- Cement board component carries a Class A surface burning rating (0 flame spread, 0 smoke developed per ASTM E84, manufacturer data).
- Installed and inspected by Modern Wall Systems, EIFS specialists since 1991.

TYPICAL ULTRA-GUARD WALL SECTION



SYSTEM COMPONENTS

No.	Layer	Ultra-Guard Component
1	**Substrate**	Exterior gypsum sheathing, plywood, CMU or concrete
2	**AWRB**	Fluid-applied or sheet air- and water-resistive barrier
3	**Continuous insulation**	EPS board, drainable application
4	**Impact layer**	PermaBASE PLUS® cement board, ½" (12.7 mm)
5	**Base coat + mesh**	Polymer-modified base coat with embedded fiberglass mesh
6	**Finish coat**	Factory-tinted acrylic or elastomeric textured finish

Job Name _____

Contractor _____ Date _____

Submittal Approvals: (Stamps or Signatures)

CORE LAYERS OF A NON-BRANDED EIFS WALL

Every EIFS wall is built from the same core layers, listed from the structure outward. The right-hand column shows how Ultra-Guard specifies each one.

Layer	Function (Industry Definition)	Ultra-Guard EIFS Specification
Substrate	The underlying structural wall, such as exterior gypsum sheathing, plywood, concrete masonry units (CMU) or concrete.	Sound, dry, code-compliant substrate. Damaged or wet sheathing found during retrofit is removed and replaced before the system is installed.
Air- and Water-Resistive Barrier (AWRB)	A fluid-applied or sheet membrane applied to the substrate to prevent moisture infiltration.	Continuous AWRB applied to the full wall area, lapped and integrated with flashings at windows, doors, penetrations, roof-to-wall intersections and terminations.
Continuous Insulation (c.i.)	Rigid foam boards, typically expanded polystyrene (EPS) or extruded polystyrene/mineral wool, adhesively or mechanically attached to provide high thermal R-value.	EPS insulation board installed in a drainable configuration (vertical notched adhesive ribbons or grooved board). Board thickness is set by project R-value and design requirements.
Ultra-Guard Impact Layer	*Not part of a conventional EIFS wall. This is the Ultra-Guard addition.*	**PermaBASE PLUS® cement board**, ½" (12.7 mm), mechanically fastened through the insulation into the framing or structural substrate. Fastener type, length and spacing follow the manufacturer and the project design. Board joints are treated before the base coat is applied.
Base Coat	A polymer- or cement-based mixture troweled over the insulation.	Polymer-modified cementitious base coat troweled over the cement board, applied to the manufacturer's specified thickness.
Reinforcing Mesh	Open-weave fiberglass mesh embedded into the wet base coat to provide impact resistance and structural integrity.	Alkali-resistant fiberglass mesh fully embedded in the wet base coat with no mesh pattern showing. Laps and diagonal reinforcement at the corners of openings. High-impact mesh is available at grade and high-traffic areas.
Finish Coat	A factory-tinted, textured acrylic or elastomeric topcoat that delivers the final color, appearance (such as a sand or swirled stucco texture) and weather resistance.	Factory-tinted acrylic or elastomeric finish. On retrofits, texture and color are matched to the existing walls.

SYSTEM CLASSIFICATIONS

Classification	Description	Ultra-Guard
Drainable (Moisture-Managed) EIFS	Includes a drainage plane or gap behind the insulation board, often created with notched adhesive ribbons or grooved foam, so incidental moisture can escape. This is the standard in modern building codes to prevent trapped water, mold and rot.	**Specified.** Ultra-Guard is installed as a drainable system.
Barrier EIFS (Non-Drainable)	Relies on a single line of defense at the outer face, where the base coat and sealants act as the complete weather barrier. It has no dedicated drainage cavity.	Not used for Ultra-Guard. This type is common on older buildings and is identified during inspection before retrofit.

HOW THE IMPACT LAYER WORKS

Woodpeckers target EIFS because the wall sounds hollow and the foam behind a thin finish gives way easily. Ultra-Guard puts a rigid, fastened cement board layer behind the reinforced base coat, so a peck lands on a hard surface instead of soft foam. The insulation stays behind the board, where it keeps providing continuous R-value and the drainage path.

APPLICABLE STANDARDS & REFERENCES

ASTM C1325 (cementitious backer units) • ASTM E84 (surface burning) • ASTM E96 (water vapor transmission) • ASTM D3273 (mold resistance) • ASTM E2273 (drainage efficiency of EIFS clad wall assemblies) • ASTM E2568 (PB EIFS specification) • IRC R703 and IBC Chapter 14 exterior wall coverings.

TECHNICAL DATA: IMPACT LAYER COMPONENT

Values below are the manufacturer's published data for ½" PermaBASE PLUS® Cement Board (National Gypsum / PermaBASE Building Products, LLC). They describe the cement board component only and are not results for the complete Ultra-Guard assembly.

Property	½" PermaBASE PLUS	Test Method
Thickness, nominal	½" (12.7 mm)	—
Weight, nominal	2.5 lbs/sq ft	—
Flexural strength	≥ 750 psi	ASTM C947
Compressive strength	1,250 psi	ASTM D2394
Fastener holding (wet & dry)	≥ 90 lbs	ASTM C473
Falling ball impact (12" drop)	Pass	ASTM D1037
Wind load (studs 16" o.c.)	35 psf	—
Freeze/thaw cycles	100	ASTM C666
Water absorption (% of weight)	< 8%	ASTM C473
Permeance	> 10 perms	ASTM E96
Linear expansion w/ moisture	≤ 0.07%	ASTM D1037
Thermal resistance	R = 0.37	ASTM C518
Mold resistance	Score of 10	ASTM D3273
Surface burning	Class A (0 / 0)	ASTM E84
Product standard	ASTM C1325	—

Source: PermaBASE PLUS® Cement Board Technical Information, 09 28 00 / NGC. See the manufacturer's sheet for test conditions and footnotes.

CONTACT

Modern Wall Systems
900 Commonwealth Pl, Suite 104, Virginia Beach, VA 23464
757-833-4063 • ems@eifswallsystems.com
eifswallsystems.com/ultraguard

Industry layer and classification definitions are based on information published by EIMA (EIFS Industry Members Association), Sto Corp., Dryvit, Sika and Master Wall. Ultra-Guard EIFS™ is a trademark of Modern Wall Systems. PermaBASE PLUS® is a registered trademark of PermaBASE Building Products, LLC. Information is subject to change without notice.

INSTALLATION OVERVIEW

Ultra-Guard EIFS is installed only by MWS-certified installers. The sequence below is a summary. The project scope and the component manufacturers' instructions govern.

01 Inspect & prepare. Inspect the substrate. On retrofits, remove damaged EIFS and replace wet or deteriorated sheathing. Install flashings at openings and roof-to-wall intersections.

02 AWRB. Apply a continuous air- and water-resistive barrier and integrate it with all flashings and terminations.

03 Insulation. Install EPS board in a drainable configuration with tight joints and staggered vertical joints.

04 Impact layer. Fasten PermaBASE PLUS cement board through the insulation into framing or substrate. Butt edges closely without forcing them, stagger end joints and treat joints.

05 Base coat & mesh. Trowel on the base coat and fully embed the reinforcing mesh. Add diagonal mesh at opening corners and high-impact mesh where specified.

06 Finish & seal. Apply the tinted finish coat to match texture and color. Install backer rod and sealant at joints, openings and dissimilar materials.

CONTROL JOINTS

Provide expansion and control joints where building expansion joints occur, at floor lines and story separations, where the substrate changes, at changes in building shape or structural system, and where EIFS meets dissimilar materials. Joints are never bridged with base coat or finish.

MAINTENANCE

- Keep roofing, sealant joints, windows and flashings weather-tight.
- Repair water leaks or condensation sources as soon as they are found.
- Inspect sealant joints periodically and replace failed sealant.
- Clean with low-pressure water and mild detergent. Do not use high-pressure washing.

LIMITATIONS

- Ultra-Guard resists woodpecker damage. It does not deter birds from landing, perching or making noise on the building.
- System performance depends on a sound substrate and properly installed flashings and sealants.
- Not intended for below-grade use or locations with continuous water exposure.

WARRANTY

1-year Modern Wall Systems labor warranty, plus the component manufacturers' material warranties. Terms are stated in each project agreement.