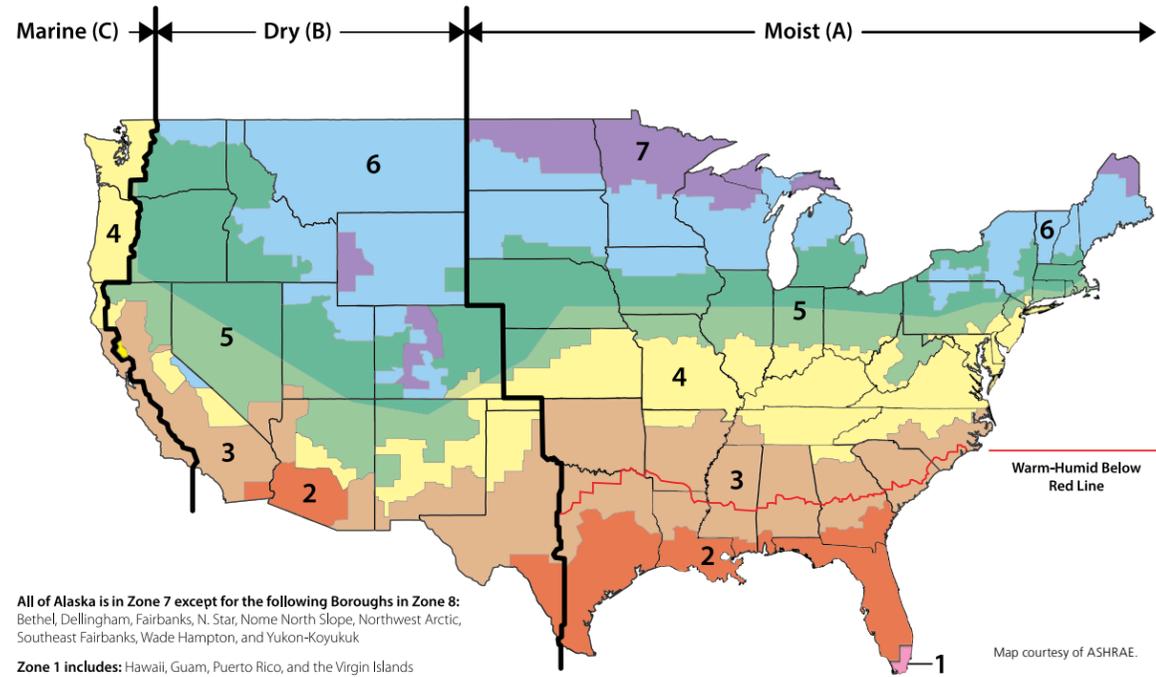


# Applicable In All U.S. Climate Zones

StoPowerwall® Systems are designed to comply with energy and durability standards across every U.S. climate zone.



Visit [www.StoPowerwall.com](http://www.StoPowerwall.com) for more information and a complete list of product specifications.

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**ATTENTION**

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## StoPowerwall® Stucco Systems



Obtain the Proven Power of Smarter Stucco Walls



# StoPowerwall® Systems

StoPowerwall Systems combine portland cement stucco with a fluid-applied air and moisture barrier, advanced cavity wall design, continuous insulation (where applicable and required by code), and Sto® high-performance finishes. StoPowerwall System components include:

- StoGuard® Air and Moisture Barrier
- Sto DrainScreen™ Drainage Mat
- StoPowerwall Stucco (includes stucco produced by Sto's strategic manufacturing partners)
- StoPowerwall and Sto Powerflex® High Performance Textured Finishes (and primers as applicable)

When required by code, Dow STYROFOAM™ Type IV XPS rigid insulation—backed by Dow Chemical's 50-year thermal performance warranty—serves as the continuous insulation (ci) component.

When combined with other building-code-compliant materials—metal lath, building paper, wood, metal frame, or CMU back-up wall construction—and properly integrated into wall construction, StoPowerwall Systems provide lasting beauty and protection.



## StoPowerwall comes in three distinct systems for different applications:

### StoPowerwall ci

Offers superior thermal, air and moisture control by integrating StoGuard Air and Moisture Barrier with Dow STYROFOAM™ Type IV extruded polystyrene (XPS) rigid continuous insulation, an advanced cavity wall component, Sto DrainScreen, and Sto high-performance textured finishes.

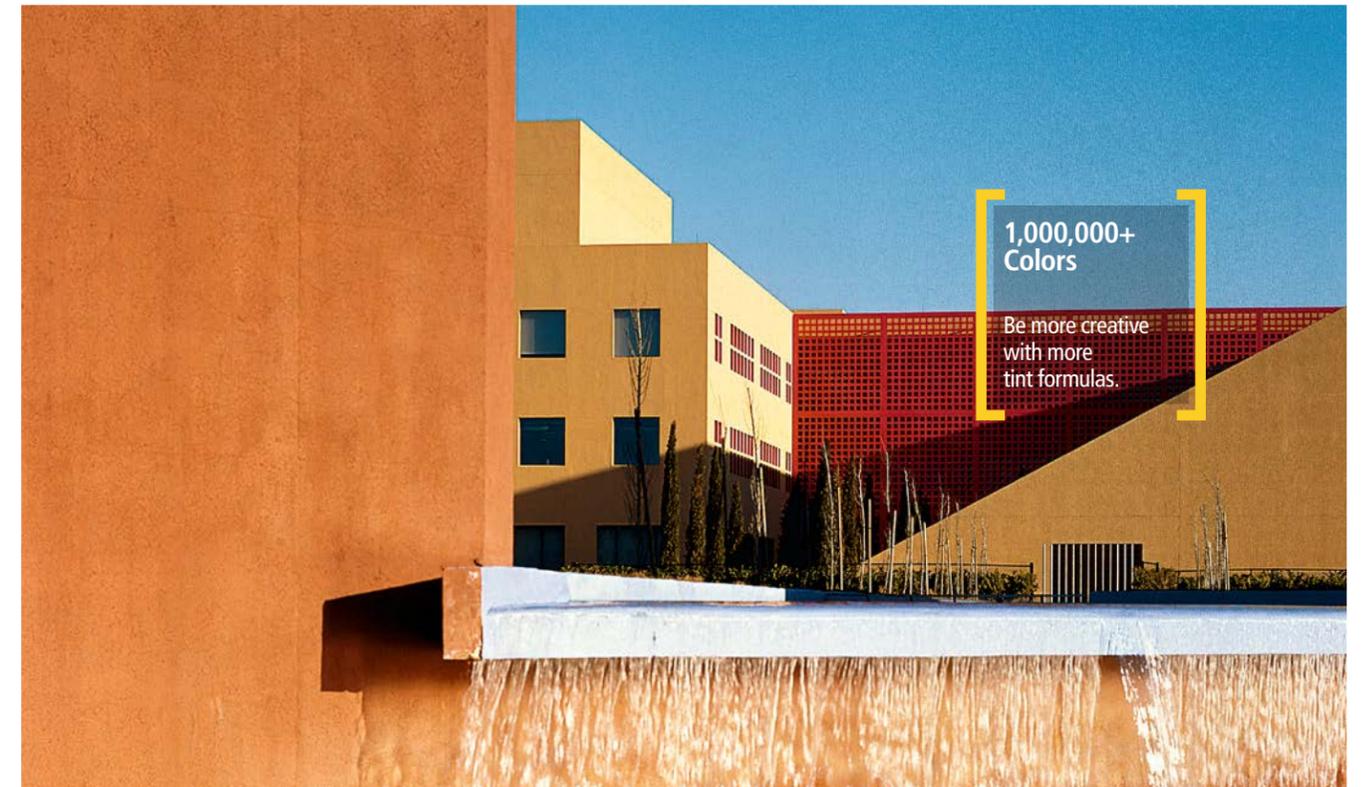
### StoPowerwall DrainScreen

Offers superior air and moisture control by integrating StoGuard Air and Moisture Barrier with Sto DrainScreen advanced cavity wall component and Sto high-performance textured finishes.

### StoPowerwall ExtraSeal®

Provides a single-component, trowel-applied air barrier compatible with StoPowerwall Stucco (ICC ESR 2323) for direct applications to CMU wall construction, and the protection of Sto high-performance textured finishes.

# Create Lasting Impressions



To create highly attractive stucco walls that boost curb appeal, StoPowerwall puts more custom finish options, coatings, colors, and textures at your fingertips. Select Sto high-performance finishes in a wide array of tint choices designed for excellent color uniformity.

Sto finishes provide a strong, flexible outer skin that protects building exteriors while keeping them looking like new for longer.

To reduce cracks in stucco, select one of two options:

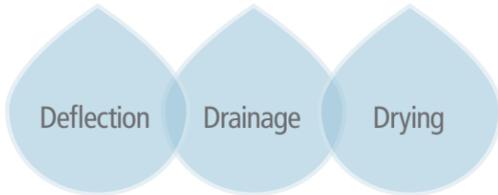
- StoPowerflex Elastomeric Finishes – flexible elastomeric finishes cover hairline cracks in stucco.
- Sto Armor Guard – uses Sto woven glass fiber reinforcing mesh with Sto base coat to add strength to the outer wall surface and resist cracking in stucco walls.

Controlling cracks in stucco walls means fewer callbacks, lower maintenance, and enhanced curb appeal.

# Moisture Protection Outside

## Three elements of moisture management:

Controlling moisture is the key to minimizing maintenance and preserving the curb appeal of exterior stucco walls. StoPowerwall® Systems are engineered for superior moisture management by implementing three design principles important to any exterior cladding: Deflection, Drainage and Drying. Deflection is the most important and effective strategy to prevent water entry into walls and minimize the risk of water damage.



### Deflect

Sto® high-performance coatings and finishes provide a strong, flexible outer skin that protects stucco buildings from moisture by deflecting water off the face of the cladding. They work by:

- Creating a more durable, easier-to-maintain surface with excellent weatherability.
- Resisting wind-driven rain and UV light degradation.
- Resisting algae, mildew, and mold growth.

For example, Stolit® Lotusan® with Lotus-Effect® Technology offers a super-hydrophobic, high-performance finish that provides unprecedented water repellence.

Sto high-performance coatings and finishes, when combined with sound design and construction practices (such as the proper use of metal coping at parapets, flashing with drip edges beneath windows and doors to direct water to the exterior, and flashing at other locations such as sills, projecting features, deck attachments, and roof/wall intersections), as well as proper sealing around penetrations (such as doors, windows, and fixture attachments), can reduce maintenance and increase durability of the wall assembly.



# Advanced Cavity Wall Design Inside



### Drain

Placing a Sto DrainScreen™ drainage mat between the cladding and the StoGuard® seamless air and moisture barrier protects the wall assembly. It works by creating an air gap that promotes drainage. In the event water penetrates the exterior cladding, it can drain down and out of the wall cavity when properly integrated with flashing.



### Dry

StoPowerwall ci and StoPowerwall DrainScreen Systems include an air gap by incorporating Sto DrainScreen in the assemblies to promote not only drainage, but faster drying. This feature is especially important in moist and marine climate zones. Sto DrainScreen operates in conjunction with a seamless, fluid-applied StoGuard air and moisture barrier, which protects the substrate, and resists moisture intrusion, while helping to prevent growth of mold and mildew.

# Building Code Compliant Wall Assemblies

StoPowerwall® Systems incorporate stucco products produced by Sto® or its manufacturing partners that comply with ICC Acceptance Criteria for Cementitious Exterior Wall Coverings (AC 11) and/or ASTM C 926.

## Energy efficiency

For meeting energy codes, StoPowerwall ci incorporates up to two inches of Dow STYROFOAM™ Type IV extruded polystyrene (XPS) rigid foam insulation providing an R-value of up to 10. StoPowerwall ci complies with regulatory requirements for continuous insulation over steel and wood framing, including ASHRAE Standard 90.1-2013, the new IGCC/IECC energy code requirements for continuous insulation, and the Title 24 requirements for energy efficiency.

## Water management

For water management, StoPowerall ci and StoPowerwall DrainScreen™ Systems incorporate advanced cavity wall design with Sto Drainage Mat and a continuous fluid-applied, vapor-permeable air and moisture barrier, Sto EmeraldCoat®, both listed components in ICC-ESR 1233.

## Fire testing compliance

For fire safety, StoPowerall ci and StoPowerwall DrainScreen Systems have been tested in accordance with NFPA 285 and meet acceptance criteria for use on noncombustible construction (Types I-IV) and combustible construction (Type V) as described in ICC-ESR 1233.



# Three Premium Systems



	StoPowerwall ci	StoPowerwall DrainScreen	StoPowerwall ExtraSeal®
<b>Substrate Type</b>	Wood, Gypsum sheathing	Wood, Gypsum sheathing	Masonry, Concrete
<b>Air and Moisture Barrier Protection</b>	Uses StoGuard® fluid-applied air and moisture barrier to provide superior protection against water penetration and air leakage. StoGuard EmeraldCoat provides a vapor permeable fluid-applied air and moisture barrier.		Uses Sto ExtraSeal, a single component air barrier barrier and scratch coat for CMU beneath ASTM C 926 stucco brown coats. <sup>1</sup>
<b>Drainage and Drying</b>		Incorporates Sto DrainScreen, a drainage mat that creates an air gap to facilitate drainage and faster drying.	Barrier wall design.
<b>Continuous Insulation</b>	Up to two inches of Dow STYROFOAM™ Type IV XPS (extruded polystyrene) insulation board installed inbound or outbound of sheathing for R-values of 5.0-10.0.	None	None
<b>Stucco</b>	Sto listed stucco (ICC ESR 2323) and stucco produced by Sto's manufacturing partners.		
<b>Finish</b>	Sto Powerflex® Silco: A ready-mixed silicone enhanced elastomeric textured wall finish for covering hairline cracks and enhanced water repellency. Sto Powerflex: A ready-mixed elastomeric textured wall finish for covering hairline cracks. Sto Powerwall: A ready-mixed flexible acrylic textured wall finish with high water vapor permeability. All finishes use marble aggregate—not quartz—for cleanest, most vivid colors.		
<b>Other Components</b>	Sto Armor Guard: Uses woven glass fiber Sto Mesh embedded in Sto base coat to resist cracking.		

1. Only applies to stucco brown coats evaluated for this application by Sto Corp., StoPowerwall Stucco (ICC-ESR 1233) and Quikrete 1200 Stucco (ICC ESR 1240).