

Overall, StoTherm™ EIFS Beat Bricks One Layer at a Time.



Quality control

StoTherm

StoTherm EIFS materials are manufactured from the highest quality materials to strict quality controls. Sto Corp., including its manufacturing facilities, is ISO 9001:2000 certified.

Sto Corp. has established specifications that require the installation of critical details.

Brick

Material defects in brick products that arise during manufacturing include wide variability in color, excessive or variable water absorption, excessive cracking and shrinking.

Satisfactory masonry construction, particularly on high-rise structures, requires continuous inspection. Unfilled mortar joints, which reduce strength and increase water permeability, are an ongoing problem for the brick industry. But the Masonry Alliance for Codes and Standards refuses to recommend a code requirement for continuous inspection for high rise buildings.

Inspection, testing and maintenance

StoTherm

Sto EIFS' 100% acrylic and silicone-enhanced finishes resist fading, peeling, cracking, dirt pick-up, mildew and mold. They are easily cleaned by low-pressure power washing with water and a mild detergent to extend lifecycle to re-coating.

Brick

Most homeowners and building owners assume that brick claddings require no maintenance and they assume that all they need to do is paint the trim every few years. This is incorrect. Brick requires re-pointing of mortar joints and may require a sealer over the surface to prevent excess water infiltration and structural damage.

The bottom line . . . Economics!

Easy and Economical to Update Look

StoTherm can easily be recoated to update the look. New moldings or design details can be added easily and economically.

Difficult and Expensive to Update Look

Brick can be painted to change its color. Additional change usually requires extensive renovation work.

More Economic Installed Cost

EIFS pricing according to Ducker Worldwide:

- Average material cost: \$0.80 per square foot
- Total installed cost: \$5.00 to \$6.00 per square foot

More Expensive Installed Cost

Pricing according to Ducker Worldwide:

- Average material cost: \$1.25 - \$1.30 per square foot
- Total installed cost: Average \$8.50 per square foot

StoTherm™ EIFS Beat Brick... layer by layer.



Have you wondered why the Brick Industry has been attacking EIFS lately? Brick is running scared. Why? In category after category, StoTherm EIFS offers home and building owners better protection and better value. Owners deserve accurate . . . factual information about the best cladding for their buildings. So at Sto, we are fighting back, one layer at a time.

The advantages of StoTherm EIFS over brick are:

- Greater design versatility
- Better protection against moisture intrusion
- Greater energy efficiency
- Easier quality installation and quality control
- Greater value per square foot installed cost

StoTherm EIFS vs. Brick?

StoTherm offers superior weather resistance and protection against moisture intrusion. Better looks and versatility. Greater energy efficiency. Outstanding Quality Control. Easier maintenance. Greater Value. EIFS vs. brick? No comparison.

Contact Sto Corp.

Sto is the innovative world leader in cladding, coating and restoration systems. To learn more or to verify facts contained in this piece, please visit our website at www.stocorp.com for a complete bibliography.

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Sto | Building with conscience.

Design Versatility



Monte Carlo

StoTherm™ EIFS offer endless color and texture options. Brick is just brick.

The Facts:

StoTherm

High Design Versatility

StoTherm EIFS offers designers almost unlimited freedom and flexibility.

- Choose from almost unlimited colors and varied textures
- Shape quoins, curves, reveals and other details easily
- Use color design to increase both aesthetic impact and harmony with environment

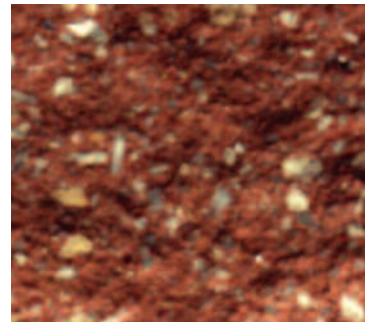
Brick

Limited Design Versatility

Brick offers the designer a limited number of shapes, sizes and colors

- Achieving a smooth monolithic surface requires painting or plastering brick
- Shaping quoins, curves and other intricate details in brick is extremely expensive and labor-intensive
- Limited in the use of color design

Brick soaks up water . . . like a sponge



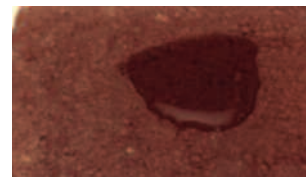
Surface of brick

StoTherm EIFS don't just look better, StoTherm EIFS offer value beyond aesthetics. The truth is, EIFS offer outstanding protection against the elements, including protection against water intrusion. Truth be known, brick soaks up water like a sponge. Like a sponge, brick is porous so it absorbs and holds water. Wind will drive water through a brick veneer wall. The surface of StoTherm prevents water penetration.

StoTherm offer outstanding protection against the elements and water intrusion. An engineered StoTherm System, by design, keeps water outside the wall. Brick veneer walls are designed to allow water infiltration into the cavity.



Brick soaks up water



Sto Wall Systems bead water

The Facts:

StoTherm

- Fewer transitions and penetrations than other claddings offer fewer points of entry for outside moisture.
- Vapor-permeable, 100% acrylic and silicone-enhanced Sto finishes allow moisture vapor from the interior of the house to escape while repelling rain and weather. Vapor molecules are small enough to pass through the surface though water droplets are not.
- The inclusion of StoGuard™ with other design features makes any StoTherm EIF System drainable for added protection against incidental moisture intrusion.
- StoTherm EIFS meet or exceed water penetration standards required by U.S. and Canadian model building codes (BOCA, SBCCI, ICBO, and, in Canada, CCMC)
- In independent tests, a StoTherm EIFS-clad wall assembly incorporating 41 common details withstood a simulated 8" per hour rainfall at wind-driven forces of up to 92 mph. There was no leakage into the wall cavity, into the interior, or around/through the properly flashed windows and doors.

Brick Walls

- Prior to the 1950's, most brick walls were two bricks wide and were load bearing. Not anymore. The majority of brick cladding built in the U.S. now is actually brick veneer. Because brick, which is porous, can soak up water like a sponge, water easily gets through the cladding. Waterproofing brick veneer therefore requires installing a moisture barrier, usually building wraps or paper, on the sheathing. Sealing the surface of the brick and mortar with a waterproof coating may also be necessary.
- As commonly installed, fabric building wraps allow moisture intrusion.
- The problem of water intrusion and permeance in masonry is so great that more than 200 research papers have been written about it.
- Mortar installed with voids, improperly tooled mortar, debonded mortar, and cracked mortar—all problems—allow water penetration.
- Mortar installed so that it protrudes into the cavity and collects at the bottom—a common occurrence—can block the drainage of intruding moisture.
- Rot happens in structures beneath brick but it is hard to inspect and test for such damage, making eventual repairs more extensive and costly.



StoTherm

- The incidence of any properly installed EIFS debonding under regular service is very rare.
- There is no record of fatalities caused by EIFS.
- Because StoTherm EIFS can be designed for heavy-duty impact resistance, StoTherm EIFS achieves Dade County's approval for use in hurricane zones.

Dangerous Proposition (The 3rd Pig Was Dead Wrong – Brick Kills!)

Investments are long-term. Your building is an investment. StoTherm EIFS offer long-term durability and safety for your long-term investment. StoTherm EIFS have been performing beautifully in Europe for almost 50 years, in North America since 1979.

In the U.S. in recent years, masonry falling off a building façade has killed 30 individuals and injured 81. That's just during regular use, too—not during construction, earthquakes, tornadoes, hurricanes, or even demolition.



Beware of Falling Bricks...

Frequent Masonry Failures Kill.

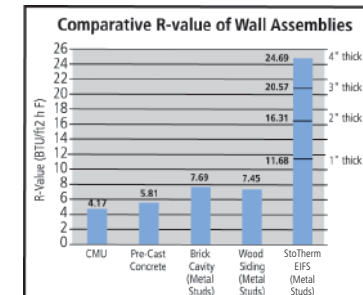
- The brick industry has been unwilling to sponsor research to determine the cause, but design flaws, construction flaws, materials and lack of maintenance play a part.
- Many brick veneer walls lack anchors, use too few anchors or use galvanized anchors, instead of stainless steel.
- Galvanized anchors—the standard in the U.S.—begin to rust after as little as 180 days in brick walls exposed to weather.
- Canada and many European countries require stainless steel anchors. The U.S. stone industry requires it. The U.S. clay brick industry does not.

It can huff & puff outside, but StoTherm is still more energy efficient than brick.

StoTherm EIFS offer better insulation and higher R values because a continuous blanket of insulation eliminates the many thermal breaks characteristic of between-the-stud insulation; often brick-clad homes use between-the-stud insulation.

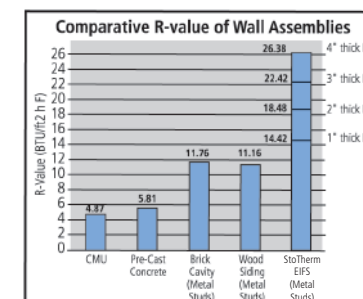
The Facts:

StoTherm

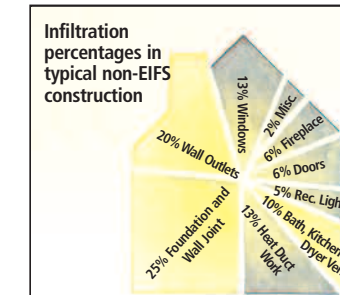


- StoTherm EIFS typically offers R-values that are 2 to 3 times the R-values of typical brick-clad structures.

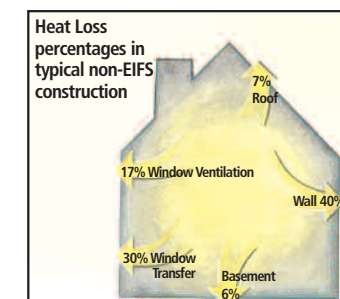
Brick



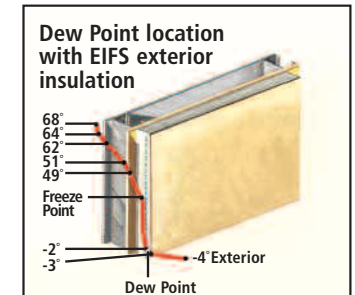
- Brick-claddings typically offer R-values that are 1/2 to 1/3 times lower than that of StoTherm EIFS claddings.



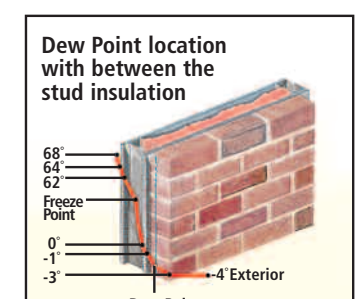
- StoTherm EIFS can cut exterior air infiltration drastically compared to other claddings, and reduce heat loss through the wall.



- Brick mortar joints, which often have voids, crack or are porous, offer thousands of outlets for air to infiltrate and heat to be lost.



- The dew point—the temperature at which water vapor condenses—is located on the outside of the wall in StoTherm EIFS, reducing the possibility that condensation will collect in the walls, possibly freezing and causing damage.



- The dew point in brick cladding is typically in the interior of the cladding, increasing the chance that moisture will condense within the wall, possibly freezing and causing damage.