

STUCCO/EIFS



EDUCATION AND SOLUTIONS FOR REAL ESTATE

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Introduction

Thank You for choosing Del-Val Home Inspectors for help with buying or selling a Stucco home. Stucco is an excellent product when installed and maintained properly. The reputation as of late has been that “Stucco is bad product” or “I am not getting involved with a stucco home”. My hope is to provide you with information so that you may have a better understanding, and working knowledge to deal with Stucco in a confident manner .This will hopefully ease the process when purchasing or selling a Stucco clad home.

The purpose of this document is to help educate all those involved in real estate transactions of a Stucco homes. This is a basic guide which covers the fundamentals of need to know info. If something does not make sense or you have questions that are not discussed within this document, please feel free to contact me at jim@delvalhi.com or 215-850-3819.

Thank You,

Jim Carney Jr

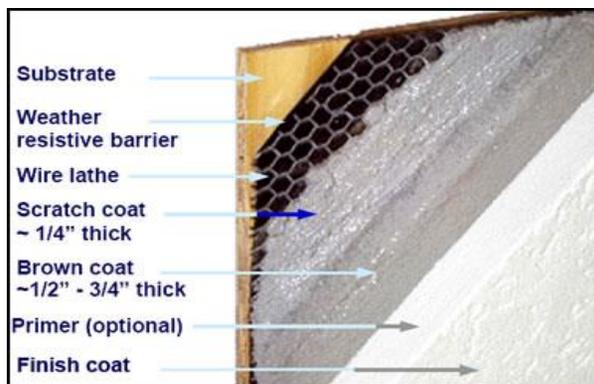
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EDI # PA-119

Stucco 101

There are several types of stucco products currently on homes in the Delaware Valley. The two most commonly installed Stucco systems are “Traditional Three Coat and EIFS.”

The most common type applied on residential homes in the Delaware Valley is Traditional Three-Coat Stucco. This consists of masonry or synthetic stucco which is applied over a wire lathe. This is also commonly referred to as a “Hard Coat”.



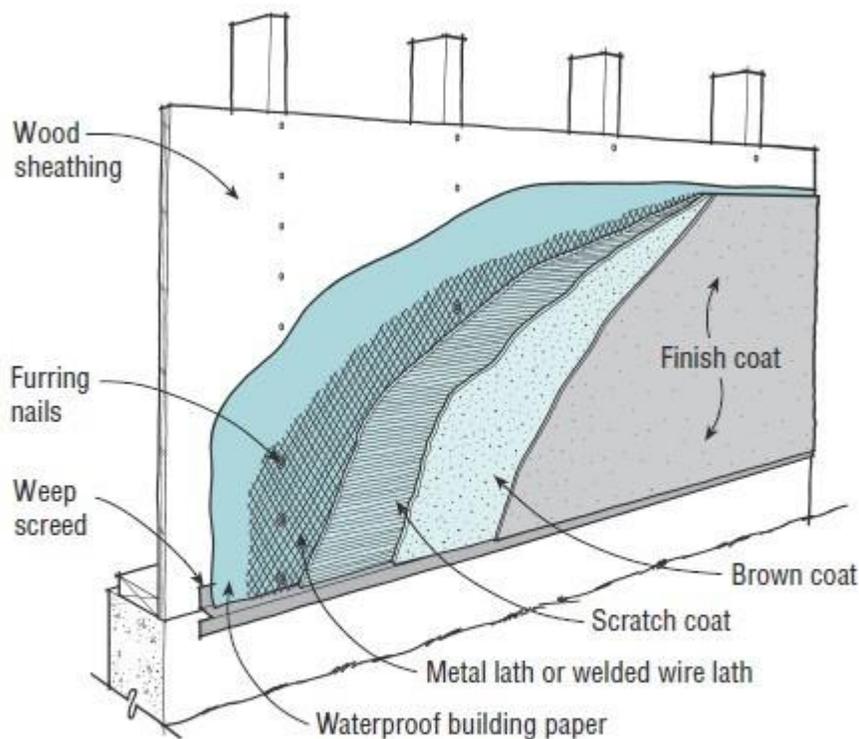
The second most common type found in the Delaware Valley is EIFS which stands for (Exterior Insulated Finishing System).

EIFS is a lightweight synthetic wall cladding system that includes foam insulation board covered by a thin synthetic finish coat. (Found more often on commercial buildings)



One key feature found in some traditional Three-Coat and EIFS is a drainage system. The drainage system is created by a drainage track called a “weep screed”.

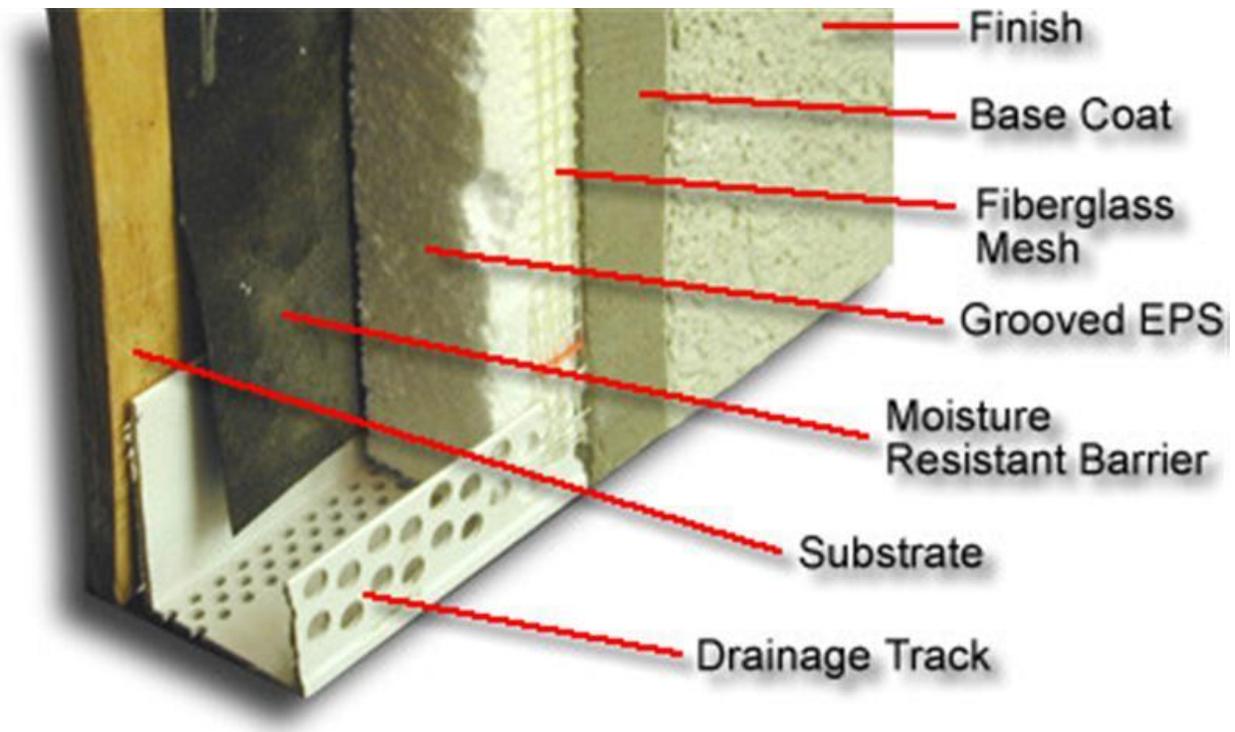
FIGURE 1-29 Three-Coat Stucco.



Traditional three-coat stucco is applied about $\frac{7}{8}$ inch thick over metal lath, which creates a space for water to drain out through the weep screed along the foundation. The drainage plane is essential since stucco itself is relatively porous.

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EIFS drainage System



EIFS with Drainage (Weep Screed) Shown above

These are just a few basic examples of stucco systems, however many other systems have been designed with other specifications. These examples illustrate the basic principles of stucco clad exterior barriers and should aid in providing a better understanding.

Relationship Issues

As stated in the introduction, Stucco and EIFS are an excellent exterior wall cladding systems. When installed properly they are one of the best and most aesthetically pleasing exterior finishes available. They provide a home with protection and curb appeal.

One of the major reasons there has been some issues with these systems as of late is due to their relationship with other surrounding exterior barriers. The majority of these issues are not with the actual products themselves but with the relationships shared between the products. The most common relationship stucco forms are with the roof, windows, doors, chimneys, and utility penetrations.

When the roof and stucco do not have proper flashing or the flashing is not properly installed, moisture can get behind the substrate. Missing Kickout Flashing is one of the largest issues found. When the stucco terminates too close to the roof, the moisture can wick up behind the stucco. Examples of both are shown in the pictures below. There is supposed to be a minimum of two inches between stucco and shingles. Kickout Flashings belong wherever a gutter terminates into a wall.

This image shows a proper Kickout Flashing installed with a proper termination gap between the stucco and shingles.

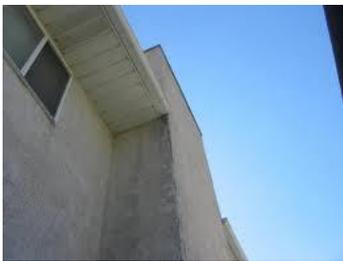


gutter

Missing Kickout Flashing, and touching shingles shown on left.



stucco



The relationship between the roof and a stucco chimney is a common concern.

Staining



and cracks are a common result.

Another common issue occurs when windows are installed improperly or not flashed correctly. The relationship between the framing and the window is not something that is clearly visible. A term used for visible signs of water damage around a window of a stucco home is a “Crying Windows”. A crying window happens when the stucco below a window appears dark or discolored. This is not always from moisture penetration and sometimes can be from paint bleeding or metal accessories such as shutter nails rusting. A trained eye usually can tell the difference.

“Crying Windows”



Crying windows can also mean that the building envelope is crying for attention.

Proper termination and caulking/sealing is another common issue. Caulk/Sealant is needed and maintained at all Windows, shutters, Doors, and Penetrations (such as hose bibs, electric, air conditioning, and natural gas line), and where dissimilar materials meet (such as stucco to vinyl siding or stucco to brick etc.) These areas should be terminated and sealed properly. Caulks and sealants breakdown over time and should have periodic evaluations as part of routine

homeowner maintenance to ensure that they are sealed and not allowing moisture intrusion.



Properly sealing electric meter (all penetrations should be sealed)

Cracks can allow moisture behind substrate.



Inspections

All inspections are not created equally. It is not uncommon for home inspectors to call out the stucco for a specialized stucco inspection. Within this section I will help educate you in the processes of Stucco inspections to hopefully make the process as easy as possible.

What to look for in an inspector? EDI (Exterior Design Institute) is the leader in Inspector training and certification in the EIFS/STUCCO inspection industry. Make sure that your inspector is EDI Certified and an active member. You can check this at <https://www.exterior-design-inst.com/find-an-inspector-by-state>.

The first type of inspection is a visual non-invasive inspection. The purpose of this inspection is to look for any areas that could allow moisture to get behind substrate. Missing sealant and flashings etc. This inspection is good for the person getting ready to list a stucco home before the final hour when a home inspector calls it out and potentially scares a buyer. If there is any discrepancies the seller can have preventative maintenance done before the house is listed, we will discuss this more in solutions.

The second type of inspection is an invasive inspection. This is where the inspector drills small holes and probes the substrate with a moisture meter to check for the moisture content. Typically wood substrate in a normal functioning wall will read anywhere from 6%-12%. Readings from 15%-19% are marginal. Water is getting in, but not likely to cause extensive damage yet. Preventative maintenance actions are required to prevent further damage. According to the American Plywood Association, readings at or above 20% moisture content in wood promote mold growth and wood rot. Areas above 20% should be remediated. The stucco and affected areas should be removed until

solid undamaged substrate is revealed. It should be noted that these readings can be affected by recent weather.

What to expect with an invasive stucco inspection. All parties involved will need to sign a release for the inspector to drill holes in the building. If someone is doing a pre-listing inspection they will have to sign the release. If the buyer hires an invasive inspection both the buyer and seller will have to sign.



Inspector will drill
3/16-1/4 inch holes

Moisture probe will be applied for reading.

After the reading is taken the
then use color match caulk to



Inspector will
seal holes.

Solutions

With the amount of stucco clad homes in the Delaware Valley and the excellent finish stucco offers, I do not believe to avoid these homes is an option.

The first solution is preventative maintenance. This is important with all homes annually. This is for buildings with missing flashing and failing sealant where damage is not present in substrate. A qualified stucco contractor can be hired to do all preventative maintenance in order to avoid any future issues.

The second solution is to repair damaged areas and go over entire building with proper flashing and sealants. Depending on extent of damage this could be anywhere from a couple thousand dollars to several thousand. When a certified contractor is hired and the job is done properly there can be warranties issued to make the property very desirable. Always make sure the contractor is certified and his workers are certified. A lot of the same contractors that originally installed these products incorrectly are still in business redoing the same jobs the same way.

Moisture Warranty Corporation offers stucco warranties.

<http://www.moisturewarranty.com/> if after their professionals evaluate the building a warranty can be purchased which also can ease the worry from buyers and sellers.

As stated in the beginning of this document, these are very basic concepts in stucco and stucco inspections. Feel free to call 215-850-3819 for further assistance.