



BEMMI

Building Enclosure Moisture Management Institute

Rainscreens: Frequently Asked Questions

Q: Will the rainscreen take the place of the house wrap?

A: No, engineered rainscreen is designed to work in conjunction with the housewrap or water resistive barrier and can actually enhance the performance of the WRB.

Q: What's does a rainscreen do that makes it different from a housewrap?

A: An engineered rainscreen is designed to work in conjunction with a housewrap, building paper, or felt (water resistive barrier) by creating a drainage and ventilation space between the cladding and WRB. The larger the space created, the more drainage can occur. It is the position of BEMMI members that 3/16" is the minimum airspace required to create the combination of drainage, ventilation drying, and a capillary break space to "de-couple" the cladding from the WRB/sheathing interface. Anything less may provide some level of drainage within the wall assembly, but not ventilation drying and a capillary break.

Q: What is the minimum annual rainfall that would be a cutoff for advising for using a rainscreen?

A: Any area receiving more than 20" of annual rainfall should incorporate enhanced drainage techniques in the wall system, especially if using an absorptive cladding material. Areas receiving 40" or more of rainfall should utilize rainscreen design regardless of cladding material.

Q: Where can I find some typical wall details, are they available on your websites?

A: Yes, many details are available on the BEMMI member websites:

Advanced Building Products www.mortairvent.com

Benjamin Obdyke www.benjaminobdyke.com

Cosella-Dörken www.cosella-dorken.com

Masonry Technology, Inc. www.mtidry.com



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Q: What are the recommended rainscreen products? Water resistive barrier (WRB) products?

A: We do not name engineered rainscreen products or WRB products by product name or brand name. You may check BEMMI member websites listed earlier in this Q & A for more information about specific engineered rainscreen products.

Q: From a fire prevention standpoint, is there any concern about creating a chimney effect with the introduction of the airspace?

A: This would only be a concern in high-rise (above 4-story) construction.

Q: What about the use of rainscreens in conjunction with synthetic stucco systems?

A: Many synthetic stucco providers offer engineered rainscreens as part of their drainable exterior insulation and finish systems (EIFS) offerings.

Q: When using an engineered rainscreen material in conjunction with wood siding with corner boards, is it best to run the rainscreen behind the corner boards or is it sufficient to run it up to the corner boards?

A: This is really a matter of designer or installer preference. If using a $\frac{3}{4}$ " wood trim, running the engineered rainscreen behind the trim boards can offer the same benefits as behind the cladding. You may also "pack out" the $\frac{3}{4}$ " trim so it remains "proud" of the cladding if you choose not to run the rainscreen material behind it, or switch to a $\frac{5}{4}$ trim board to achieve the same effect without packing.

Q: In the case of 3 coat stucco or manufactured stone systems, how do rainscreen systems address the expansion and contraction caused by freeze/thaw cycles?

A: Engineered rainscreen materials do not specifically address expansion and contraction of 3-coat stucco systems, but can address the added moisture entry points caused by this expansion and contraction by providing a means of draining moisture to the exterior that gets behind the stucco cladding.



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Q: Do you suggest a water resistive barrier (WRB), rainscreen membrane, and a second WRB or other material when stucco or a cast stone cladding is used?

A: When used in a stucco or adhered masonry veneer (manufactured stone) cladded wall assembly, a second layer of WRB, or a fabric “screen”, is required on the outboard side of the engineered rainscreen material to prevent the scratch coat mortar from filling or blocking the drainage paths created by rainscreen material. Some engineered rainscreen providers have specific products designed for this application with a fabric or screen pre-attached.

Q: Is it necessary to use a rainscreen behind vinyl siding, because if installed correctly it's actually hung on the fasteners?

A: Vinyl siding is not an absorptive cladding and is not installed tightly against the wall, making it less prone to trapped moisture within the wall assembly. If the building is in a high rainfall climate, or a location exposed to high levels of wind-driven rain, or has an insulated vinyl siding installed tighter to the wall, engineered rainscreen may be a design choice that would make sense.