



29797 Beck Road • Wixom, MI 48393-2834 • 248-668-6400 • Fax 248-668-6470

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Foundry Shapes and Shakes Performance: notes to the Specifier

Qualifying the "Or Equal" Clause

Specifying quality specialty vinyl siding can be a confusing task for even the most experienced specification writer. With a myriad of panels to choose from, the underlying challenge, as with most products and systems remains: ***what key factors determine product performance?***

Before sorting through mounds of product catalogs or casting adrift on the internet, it is important to establish a ***benchmark definition of performance***. Once you have the definition, the product evaluation procedure will be a faster, simpler process.

Typically, when authoring specifications for this product category, the specifier has knowledge of one or two manufacturer's products and relies on the "or equal" clause to create a level of base performance factors for competitive manufactures to measure against; with the ultimate goal of the specifier to create fairness in bidding, and good value in terms of construction dollars expended by the project owner.

However, when the time comes for three or more products to enter the mix, the specifier is forced to rely on the listed manufacturers' brochures, websites and product catalogs to establish whether or not the new products are "equal to" the listed products. Much time can be wasted as each product submitted is evaluated.

The solution to this dilemma lies in the creation of ***specific performance values*** to which all products are measured. In this way each manufacturer is evaluated on complete and neutral standards. For specialty vinyl siding, three main criteria determine long-term product performance:

- 1) Specifications should include elements of the appropriate Reference Standards as well as Descriptive Elements and Performance Requirements - *State "products must meet *ASTM D3679" (standard for rigid PVC Cladding) but take an extra step and list the following characteristics in Part II of the specification:*
 - a) **Profile (or Exposure):** write the profile size desired – 10", 7" D5", etc.
 - b) **Texture:** handsplit, roughsawn, weathered, etc. - low gloss finish – for product appearance more like natural cedar shake
 - c) **Thickness:** >.040 for greater impact resistance – although thickness is important, the thicker the panel, the more noticeable the seams. A contoured EPS foam backer will provide optimal insulation performance
 - d) **Butt Height:** >1/2" – deeper shadow lines – more like natural cedar.
- 2) **Call for the cladding to have a reinforced/roll-over top lock and nail hem.** By reinforcing the top lock area, the panel is more resistant to following the wall and will maintain straighter, truer, appearance on the wall. A rollover nail hem provides greater resistance to high winds. Request independent test reports from the manufacturer to substantiate claims of rigidity and wind resistance. Depending on project location – list specific wind performance required.
- 3) **Require panels to be listed by the Vinyl Siding Institute (VSI).** An independent process to guarantee cladding meets or exceeds ASTM D3679. ATI (Architectural Testing, Inc.) initially inspects all qualified products and reviews in-plant quality control programs to ensure compliance with ASTM D3679 – also recognized by ICC-ES as valid inspection process. Continued compliance is assured through unannounced site plant inspections (twice per year). All VSI Certified Siding display the "VSI Certified" logo on the product's box. Visit www.vinylsiding.org for more information.

By using these criteria as a checklist for specifying specialty vinyl siding, long term performance is assured!

**NOTE: ASTM Standards simply define the minimum criteria for the material – must be augmented by other key elements listed above.*

Special Note: *Polypropylene (PP) Cladding is not a comparable or equal product to Rigid Poly Vinyl Chloride (PVC) Cladding. Characteristics and testing performance differ greatly between the two, as well as long term performance. Please consult ASTM D7254 for specific PP testing minimums and visit www.icc-es.org to see a listing of current standard compliant manufacturers.*

For specification information regarding Vinyl and Polypropylene cladding, please direct questions to Karl Zidar – Building Envelope Specialist – karl_zidar@tapcoint.com