

# Expansion Characteristics of James Hardie® Siding Products

MARCH 2012

**TECHNICAL BULLETIN**  
**#8**



## SCOPE:

Fiber cement (complying with ASTM C1186), as do all building materials, expands and contracts with changes in relative humidity and temperature. James Hardie recommends designing for this type of movement on buildings with long runs of continuous siding.

## THE FOLLOWING EXPANSION VALUES SHOULD BE USED FOR CONSIDERING THIS TYPE OF MOVEMENT:

Coefficient of Thermal Expansion (COTE) per ASTM E228 is:

- Longitudinal COTE =  $6.7 \times 10^{-6}$  in/in ° F
- Transverse COTE =  $7.65 \times 10^{-6}$  in/in ° F

Moisture movement per ASTM C1185 (30% RH to 90% RH) is: 0.05% of length.

## IT IS THE RESPONSIBILITY OF THE LICENSED DESIGN PROFESSIONAL, WHEN USING OUR COMPONENTS AS PART OF THE WALL ASSEMBLY TO:

- Adhere to all the installation requirements listed in the relevant product installation instructions.
- Design a wall assembly that actively manages moisture considering both interior and exterior environments of the building, particularly in buildings that have a high risk of wind driven rain penetration, that are artificially heated or cooled, or contain indoor pools/spas.
- Understand the interaction between system components

Please be advised that James Hardie provides a limited transferable product warranty covering the product only. James Hardie is not responsible for system design or installation.

**IMPORTANT:** Failure to install and finish this product in accordance with applicable building codes and James Hardie written application instructions may affect system performance, violate local building codes, void the product-only warranty and lead to personal injury.


**DESIGN ADVICE:** Any information or assistance provided by James Hardie in relation to specific projects must be approved by the relevant specialists engaged for the project eg. builder, architect or engineer. James Hardie will not be responsible in connection with any such information or assistance.

Additional Installation Information, Warranties, and Warning are available at [JamesHardie.com](http://JamesHardie.com)



**JamesHardie**

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