

Technical Bulletin 09-010

Cracking Due to Improper Control Jointing

The cracking in your exterior cement-based plaster (stucco) over the frame sections of your home may be caused by improper control jointing.

ASTM C 1063¹, Section 7.11.4 states the following:

*“ 7.11.4 **Control Joints-General** – Control joints shall be formed by using a single prefabricated member or fabricated by installing casing beads back to back with a flexible barrier membrane behind the casing beads. The separation spacing shall not be less than 1/8 in. (32 mm) or as required by the anticipated thermal exposure range and shall be in conformance with 7.10.1.4.*

*7.11.4.1 **Control Joints** – Control (expansion and contraction) joints shall be installed in walls to delineate areas not more than 144ft² (13.4m²) and to delineate areas not more than 100ft² (9.30m²) for all horizontal applications, that is, ceilings, curves, or angle type structures.*

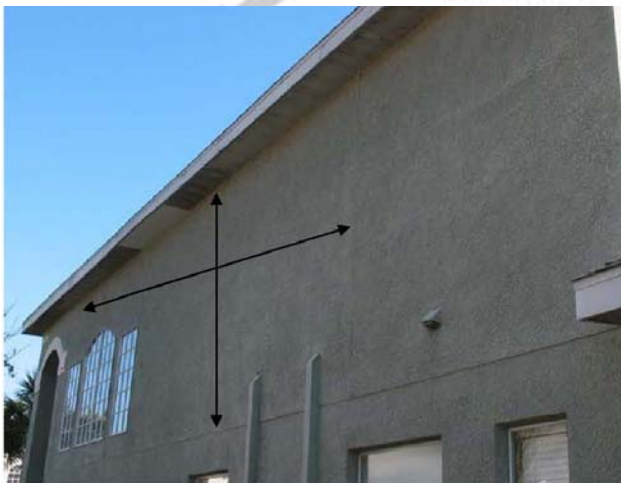
7.11.4.2 The distance between control joints shall not exceed 18ft (5.5m) in either direction or a length-to-width ratio of 2½ to 1. A control joint shall be installed where the ceiling framing or furring changes direction.

7.11.4.3 A control joint shall be installed where an expansion joint occurs in the base exterior wall.

7.11.4.4 Wall or partition height door frames shall be considered as control joints.”

In addition, Section 7.10.1.4 of ASTM C 1063¹ states, “Lath shall not be continuous through control joints but shall be stopped and tied at each side.”

See pictures below for an example of stucco cracking due to improper control jointing.



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Figure 1 represents an example of an expansion control joint.

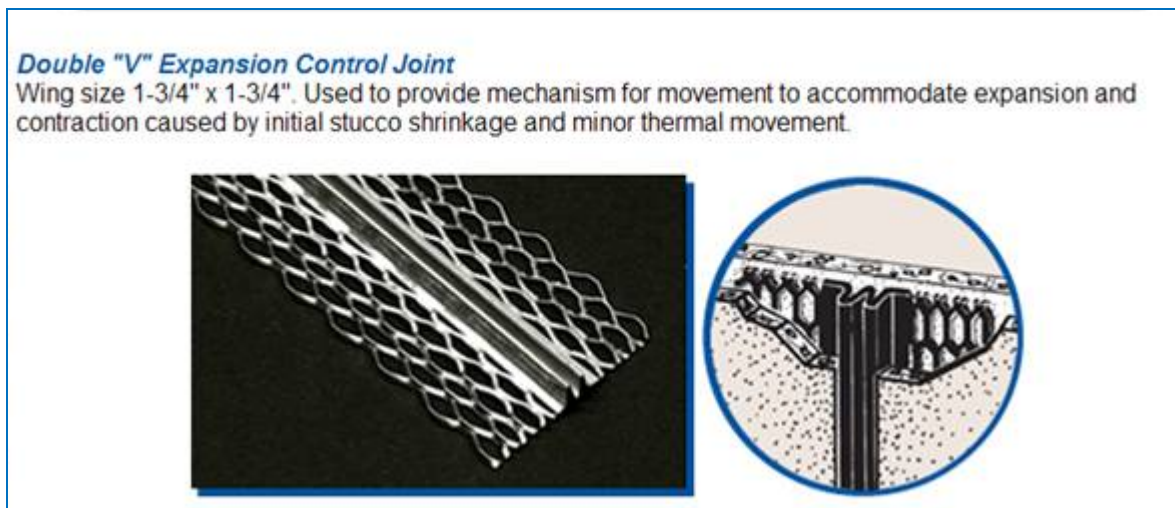


Figure 1 – Expansion Control Joint²

Call Structural Engineering and Inspections, Inc., if you suspect cracking is a result of improper control jointing.

References:

¹ASTM International. (2003). *International Building Code: ASTM C 1063* (pg.824-825).

²Niles Building Products Company. (2009). *Double "V" Expansion Control Joint*. Retrieved from <http://www.nilesbldg.com/expansion.html>.

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