

TECHNICAL BULLETIN:

RE: REVISION OF BREATHERBOARD PRODUCT SPECIFICATION SHEET
APRIL 13, 2009

The following changes have been made to our Breatherboard spec. sheet. We provide here our explanation and discussion regarding these changes.

1. Furring Strips: Our new wording recommends that furring which is to be used for attachment purposes should coincide with stud positions (at maximum spacing of 16"). An intermediate furring strip must then be installed at mid-span which can act either as a backing spacer only (in the case of a gypsum sheathed wall on steel studs) or as an additional attachment furring (in the case of a wood-sheathed wall on wood studs).
2. Attachment of Stucco: On wood frame walls with wood sheathing where 1" x 2" furring is installed at 8" spacing, it has been customary to fasten the Breatherboard and stucco lath wire to all of the furring members. On steel framed walls with gypsum sheathing, the lath wire and Breatherboard can only be fastened to furring positioned over studs, usually at 16" spacing, since the intermediate furring strip is usually non-supporting. Experience over 10 years has demonstrated that supporting the stucco at 16" intervals has typically worked well, provided that the appropriate number of fasteners are used as per Code requirements, and that an intermediate furring is installed at mid-span as a backing for the Breatherboard. Designers may have mistakenly concluded that our requirement for 8" spaced furring on our spec. sheet implied that we required that all stucco be fastened at 8" intervals. This is not the case. We offer guidelines only, and the final design must rest with each project's design authority.
3. Slip Sheet: In 2004 we had previously issued a recommendation to install a building paper slip sheet over Breatherboard. We have now changed this to make it a requirement. The purpose of the slip sheet is to cover all joints and to provide a uniformly rippled curing surface for the stucco and thus minimize the potential for long stress cracks. Experience over the past 10 years on thousands of walls with rainscreen stucco has shown that a handful of these walls have cracked along joints. These cases were usually associated with improper installations or designs such as:

- (a) Improperly mixed or improperly cured stucco as evidenced by excessive efflorescence afterwards.
- (b) Inappropriate design such as having dark stucco attached to steel supports with insufficient provision for expansion and contraction, (knowing that the dark colour would result in higher than normal stresses under solar heating).

When cracking along board joints or lath joints has occurred in such cases, the tendency has been to incorrectly blame the Breatherboard rather than the design or installation. Installing a slip sheet should ensure that similar stress-induced cracking will not occur in the future, or if it does occur it will be of a more random nature rather than patterned along convenient joints.

- 4. Double-back Stucco: Engineering consultants who investigated severely cracked rainscreen stucco on a large commercial steel-stud buildings identified the use of the “double-back” stucco application as being one of the probable causes of the excessive cracking. The double-back procedure is when the brown coat is applied over the scratch coat prior to the scratch coat being sufficiently cured. Since a rainscreen system does not provide a rigid backing to the stucco, hairline cracks can be caused in the scratch coat when the brown coat is applied too early.

Published industry literature recommends against using the double-back procedure unless there is a rigid backing behind the stucco. We therefore recommend that stucco applied over Breatherboard should have each coat individually cured to a minimum of 72 hours.