

FIELD ADHESION TEST FOR SEALANTS

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The Reason for the Bulletin:

When conditions prevent a Tremco laboratory test from being performed, an on-site adhesion test mock-up is recommended. We suggest that the contractor perform this field test to assure that the cleaning and preparation procedure is suitable for the existing conditions. When properly done, this test will provide answers as to the surface preparation that may be required and/or the use of the appropriate Tremco primer that may be required.

At the job site, choose an inconspicuous area that is representative of the substrate to be tested. The trial installation should be used to determine the bead configuration and size. Good sealant bead configurations allow the sealant to perform as designed. Poor bead configurations can lead to premature failure of the joint sealant.

Set up the test area for the proposed cleaning and priming procedure, along with areas to set up alternate methods of preparation and/or priming.

Once the trial application sealant(s) have fully cured (usually within 7 to 21 days), the sealant adhesion should be checked and documented. The data can be recorded on a jobsite log that lists each option. Perform a field adhesion test on each joint and note the results on the log sheet.

The field adhesion test is simply a hand pull test of a cut area of joint sealant. It is a very useful procedure for evaluating the effects of various cleaning methods and primers. It is also a good indicator of the fundamental adhesive properties of a sealant on a particular substrate. The field adhesion test procedure is as follows:

1. Cut through the sealant across the width of the sealant joint from one substrate to the other.
2. Make two cuts starting at the previous cut approximately 75mm long, at both sides of the joint along the substrate/sealant interface.
3. Grasp the 75mm piece of sealant firmly 25mm from its bonded edge and slowly pull at a 90-degree angle (see Figure 1)
4. Record the type of failure that occurs upon full extension to failure and the degree of force required (little or much). If the substrate adhesion is acceptable, the sealant should tear cohesively within itself or elongate to an extension value beyond the sealant's movement capability before failing adhesively.
5. Use the field adhesion test results to eliminate any options that give poor adhesion. All parties should agree upon the substrate preparation, cleaning, and/or priming technique along with the bead configuration and joint dimensions. The final results should be noted on the log sheet.
6. Repair the joint area that was tested by re-applying new sealant to the area. Use the application procedure that is agreed upon to repair the joint. Care should be taken to ensure that the original sealant surfaces are clean and that the new sealant will be in contact with the original sealant, so that a good bond between the new and the old sealant will be obtained.

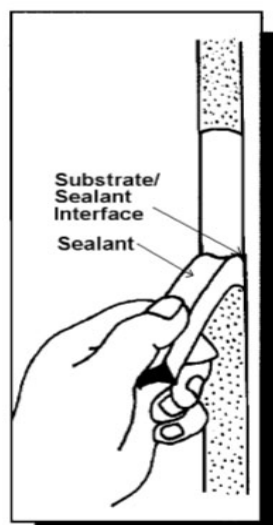


Figure 1

TREMCO CPG Australia PTY LTD

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Tremco Rep: _____ Sales Rep: _____
_____ Location of Field Adhesion (City/State): _____

Date of Field Adhesion: _____ Building Name/Location: _____

Contractor: _____

Site Conditions:

Ambient Air Temperature (°C) _____ Substrate Surface Temperature (°C) _____

Conditions @ Time of Installation: sunny partly cloudy overcast

Location of Test on Building, Floor Level _____ Elevation (N, S, E or W) _____

Field Adhesion Test	Sealant/ Membrane Coating/ Air Barrier	Batch # Color	Substrates	Surface Prep Existing or new	Joint width/ depth	Approx lineal feet/ slope	# of hours, days of cure	Mode of Failure (adhesive or cohesive)
1								
2								
3								
4								

Observations/questions:

Comments:

*****Note: Attach photo of site area along with directions to the site

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