



**Subject: INSULATION ADHESIVE FIELD TESTING (QUALITATIVE SHOVEL TEST)**

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SOPREMA® recommends *qualitative* adhesion tests to examine the *quality* of the adhesive bond for DUOTACK insulation adhesives. Refer to jurisdictional building code requirements for *quantitative* testing when loads/pressures are required to comply with local building codes.

Qualitative adhesion tests conducted by the applicator are recommended for the following conditions:

- Roof recover projects: Where new insulation will be adhered to existing materials left in place, unless the substrate is specially listed in tested/approved assemblies.
- Substrates that vary: Surfaces that vary from job-to-job such as wood, gypsum, cementitious wood fiber, concrete, lightweight insulating concrete and other substrates that do not meet published approval requirements.
- Other: Any substrate that is inconsistent or non-standard, and does not meet published and tested approval requirements.

### SHOVEL TEST METHOD

- Select three (3) or more test locations that represent each substrate condition.
- Clean and prepare the substrate per specified requirements.
- Apply the specified insulation adhesive per application requirements.
- Bond 2x2 ft (or larger) samples of insulation to the clean/prepared substrate.
- Allow the samples to cure. Refer to adhesive product data for cure times.
- Use a flat-tip spud bar of shovel (preferable with a heel on the back) positioned where the tip of the spud bar or shovel is wedged under the insulation sample.
- Apply consistent, gradual downward pressure on the handle to generate upward force on the underside of the insulation sample.
- Observe conditions:
  - Board core separates within the core, or the board facer delaminates from the board core: This indicates the substrate and the adhesive bond to the substrate is stronger than the cohesive strength of the insulation board. This also indicates the adhesive bond to the substrate is stronger than the cohesive strength of the adhesive itself.
  - Insulation adhesive is removed clean from the substrate or the substrate fails: Examine the substrate surface to determine if the substrate is satisfactory for insulation adhesive and determine if additional substrate preparation is required. Enhance cleaning/preparation and re-test as deemed appropriate.
  - Insulation adhesive fails cohesively (some adhesive remains on the substrate and some remains on the insulation sample): Examine adhesive to determine if the adhesive was properly mixed, applied and/or sufficiently cured. Re-test if deemed appropriate.
- Photo or video results, and retain for your project records.

-END OF TECHNICAL BULLETIN-