SMARTCOAT™
FIELD ADHESION PROTOCOL

PROTOCOL

This test method covers CertainTeed LLC (CT) field procedure for determining the strength and characteristics of the bond of a liquid-applied coating for use on varying roof types. CT recommends an adhesion test be conducted prior to the application of any SMARTCOAT Coating and requires such testing where specified for SMARTCOAT Limited Warranties.

A minimum of two adhesion tests should be conducted in the field of the roof or one every 10,000 sq. ft. Additional tests should be conducted over extensively degraded substrates with cracked surfaces, any change in substrate material, and any areas with evidence of ponding water.

NOTE: Gravel surfaced BUR roof membranes are not an acceptable substrate to install any SMARTCOAT product to and in no event will any CertainTeed Limited Warranty be valid in this type of application.

TOOLS & MATERIALS

You will need the following materials to conduct an adhesion test:

- SMARTCOAT 100 Roof Wash if roof wash is to be utilized on the project
- Rag(s)
- SMARTFAB 500 Series Reinforcement cut into 1" x 8" strips (longer strips can be used if desired/easier to manage)
- SMARTCOAT 200 Series Bleed Blocker/Universal Primer (appropriate to substrate) if product is to be utilized on the project
- SMARTCOAT 400 Series Coating (as specified for the project) if product is to be directly applied to the existing roof/substrate
- Fish Scale
- Knife/Blade
- Wet Mil Thickness Gauge

INSTRUCTIONS

1. Clean the roof surface where the adhesion test is to be conducted. Use any of the following, as appropriate, to adequately remove all dirt, rust, grease, debris, or anything that could interfere with adhesion: SMARTCOAT 100 Roof Wash, rinsed to ensure all detergent is removed, pressure washer, broom, or brush. A rag should scrub up clean when the roof surface is properly prepared.

2a. If a Bleed Blocker or Primer is to be used:
In this case, the bond between the Bleed Blocker/Primer and the substrate is the interface to be tested. Apply the Bleed Blocker/Primer at a rate of approximately 1-1.5 gallons/100 sq. ft. depending on surface porosity (16-24 wet mils). While the Bleed Blocker/Primer is wet, embed SMARTFAB 500 Series reinforcement strips, 1" x 12" (or longer), allowing at least 4" of the strip to extend beyond the Bleed Blocker/Primer. After the reinforcement is embedded and completely saturated, apply a second coat of Bleed Blocker/Primer to fully encapsulate the reinforcement ensuring at least 4" of the reinforcement strip remains free of Bleed Blocker/Primer. Lightly brush/roll to ensure all air is removed.

2b. If the Coating is to be direct-bonded without Primer/Bleed Blocker:
In this case, the bond between the Coating and the substrate is the interface to be tested. Apply the Coating at a rate of at approximately 1-1.5 gallons/100 sq. ft. depending on surface porosity (16-24 wet mils). While the Coating is wet, embed SMARTFAB 500 Series reinforcement strips, 1" x 12" (or longer), allowing at least 4" of the strip to extend beyond the Coating. After the reinforcement is embedded and completely saturated, apply a second coat of Coating to fully encapsulate the reinforcement ensuring at least 4" of the reinforcement strip remains free of Coating. Lightly brush/roll to ensure all air is removed.

THE BLEED BLOCKER/PRIMER/COATING MUST BE FULLY CURED ABOVE PUBLISHED MINIMUM APPLICATION TEMPERATURE BEFORE AN ADHESION TEST IS CONDUCTED.
Allow SMARTCOAT 200/210 Bleed Blocker/Primer a minimum of one week (7 days) to cure.
Allow SMARTCOAT 400/401/405 Acrylic Coating a minimum of one week (7 days) to cure.
Allow SMARTCOAT 450 High Solids Silicone Coating a minimum 72 hours to cure.

3. Lightly score the entire 12" length of the reinforcement strip on both sides to ensure you are measuring the adhesive bond to the roof substrate and not the force required to tear the membrane. Tie a knot at the end of the 4" dry reinforcement strip such that the hook end of the fish scale can be attached. Place the fish scale to facilitate a 90° peel, pulling the reinforcement up and back through the Coating. Pull the reinforcement slowly, approximately 2"/sec.

   The reinforcement shall require a minimum 2 lbs. per lineal inch of force to peel. Ideally, the peel shall indicate cohesive failure, leaving some coating adhered to the roof substrate and some coating adhered to the back side of the reinforcement. The adhesion test is considered a fail if the coating is pulled off the existing roof substrate with less than 2 lbs. per lineal inch of force.

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SUBMISSION FORM

PROJECT INFORMATION
Information shall match SMARTCOAT LIMITED WARRANTY APPLICATION.

Roofing Contractor: _____ Phone: _____

Address: _____

Name/use of building: _____

Address: _____

Sq. ft. of total liquid-applied roof area: _____ SMARTCOAT Specification: _____

ADHESION TEST INFORMATION
Total Number of Test Areas: _____ Date of Application: _____ Date of Peel Test: _____

Pressure Required to Peel Specimen(s) (lbs. per lineal inch)

	No Primer	Primer		No Primer	Primer
Test Area 1			Test Area 16		
Test Area 2			Test Area 17		
Test Area 3			Test Area 18		
Test Area 4			Test Area 19		
Test Area 5			Test Area 20		
Test Area 6			Test Area 21		
Test Area 7			Test Area 22		
Test Area 8			Test Area 23		
Test Area 9			Test Area 24		
Test Area 10			Test Area 25		
Test Area 11			Test Area 26		
Test Area 12			Test Area 27		
Test Area 13			Test Area 28		
Test Area 14			Test Area 29		
Test Area 15			Test Area 30		

Submit completed form to rpg@saint-gobain.com.