

FIELD ADHESION PROTOCOL FOR ALL SUBSTRATES AND SYSTEM SPECS

PROTOCOL

This test method describes the Manta Roofing Products LLC (MRP) field procedure for determining the bond strength and characteristics of a liquid-applied coating used on various roof types. The Coating 400 and Primers 300 series will be tested for adhesion, applied separately or in combination.

MRP recommends conducting an adhesion test before applying any Manta Coating and requires such testing where specified for Manta Limited Warranties.

A minimum of two adhesion tests should be performed 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 on which to install any Manta product, and in no event will any Manta Limited Warranty be valid.

TOOLS & MATERIALS

1. Manta 101 Roof Wash if roof wash is to be utilized on the project
2. Rag(s)
3. MantaPOLY 500 Series Reinforcement cut into 1"x8" strips (longer strips can be used if desired/easier to manage)
4. Manta 230 Series Bleed Blocker/Universal Primer (appropriate to the substrate) if the product is to be utilized on the project
5. Manta 400 Series Coating (as specified for the project) if the product is to be directly applied to the existing roof/substrate
6. Fish Scale
7. Knife/Blade
8. Wet Mil Thickness Gauge

INSTRUCTIONS

1. **Cleaning:** 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: Manta 101 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.
2. **Bleed Blocker or Primer is to be used. Option:**
In this case, the interface to be tested is the bond between the Bleed Blocker/Primer and the substrate.
 - 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 MantaPOLY 500 Series reinforcement strips, 1"x12" (or longer), allowing at least 4" of the strip to extend beyond it.
 - After the reinforcement is embedded and completely saturated, apply a second coat of Bleed Blocker/Primer to fully encapsulate it, ensuring at least 4" of the reinforcement strips remain free of Bleed Blocker/Primer.
 - Lightly brush/roll to ensure all air is removed.

3. Direct Bond to the substrate (No Primer)

- Apply the Coating at a rate of approximately 1-1.5 gallons/100 sq. ft. depending on surface porosity (16-24 wet mils).
- While the Coating is wet, embed MantaPOLY 500 Series reinforcement strips, 1" x 12" (or longer), allowing at least 4" of the strips 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 strips remain free of Coating. Lightly brush/roll to ensure all air is removed.

Note: THE BLEED BLOCKER/PRIMER/COATING MUST BE FULLY CURED BEFORE AN ADHESION TEST IS CONDUCTED ABOVE THE PUBLISHED MINIMUM APPLICATION TEMPERATURE.

- Allow Manta 230/235 Bleed Blocker/Primer to cure for at least one week (seven days).
- Allow Manta 405/410/415 Acrylic Coating to cure for at least one week (seven days).
- Allow Manta 430 High Solids Silicone Coating a minimum of 72 hours to cure.

4. Perform Pull Test:

- 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-degree -peel, pulling the reinforcement up and back through the Coating.
- Pull the reinforcement slowly, approximately 2"/sec. To peel, the reinforcement shall require a minimum of 2 lbs. per lineal inch of force.
- Ideally, the peel shall indicate cohesive failure, leaving some coating on the roof substrate and some on the back side of the reinforcement.
- The adhesion test is considered **Not Pass** if the coating is pulled off the existing roof substrate with less than 2 lbs. per lineal inch of force.

MANTA ROOFING PRODUCTS LLC
1200 SE 20th Street, | Fort Lauderdale | FL 33316 | USA |
www.mantarroof.com



FIELD ADHESION PROTOCOL FOR ALL SUBSTRATES AND SYSTEM SPECS

SUBMISSION FORM

PROJECT INFORMATION

Information shall match MANTA SYSTEM SPEC LIMITED WARRANTY APPLICATION.

Roofing Contractor: _____ Phone: _____
 Address: _____
 Name/use of building: _____
 Address: _____
 Sq. ft. of total liquid-applied roof area: _____
 Manta System 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 the completed adhesion form to warranty@mantarroof.com