



ASPHALT

TECHNOLOGIES

**Evaluation of
The Gutter Topper®, LTD
Leaf and Debris Gutter Protection System
in Accordance With
Dade County Protocol TAS 100(A)-95 (Modified)
TEST PROCEDURE FOR WIND AND WIND DRIVEN RAIN RESISTANCE
AND/OR INCREASED WINDSPEED RESISTANCE OF SOFFIT
VENTILATION STRIP AND CONTINUOUS OR INTERMITTENT
VENTILATION SYSTEM INSTALLED AT THE RIDGE AREA**

March 27, 2001

GTP-01-02-01

PRI Accreditations: ICBO TL-189; Metro-Dade 98-0608.07

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TEST REPORT

Dade County Building Code Compliance Office
PROTOCOL PA 100(A)-95 (Modified)

TEST PROCEDURE FOR WIND AND WIND DRIVEN RAIN RESISTANCE AND/OR INCREASED WINDSPEED RESISTANCE OF SOFFIT VENTILATION STRIP AND CONTINUOUS OR INTERMITTENT VENTILATION SYSTEM INSTALLED AT THE RIDGE AREA

Client: Gutter Topper, LTD
600 E. Ohio Pike
Amelia, OH 45102

Test Date: November 10, 2000
PRI Test No: GTP-01-02-01

1.1 Description of Discontinuous Test deck:

Gutter Protection System

Product Type: Leaf and roof debris gutter protection system
Product Name: Gutter Topper®
Dimensions: 2" x 11 1/2" x 61'
Manufacturer: Gutter Topper LTD

Prepared Roof Covering

Manufacturer: GAF
Product Name: 25 yr
Product Dimensions: 12" x 36"
Product Type: Dimensional shingle

Felt Underlayment

Manufacturer: Tamko Roofing Products
Type: ASTM D 226, Type I (No. 15)

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Roof Cement/Mastic

Manufacturer: Tamko Roofing Products
Name: Heavy Bodied Flashing Cement
Type: ASTM D 4586, Type I

Primer

Manufacturer: Tamko Roofing Products
Name: Quick Dry Primer
Type: ASTM D 41

Asphalt Coated (Open Mesh) Fabric, 6 in. Wide:

Manufacturer: Gardner

Other Materials:

Screws: ¼ x ½ inch hex head corrosion resistant screws
#8 x 1 inch flat head corrosion resistant screws

Sealant: GEOCEL

Nails: Galvanized ring shank, roofing nails,
1 1/4 X 3/8 inch head

Edge Metal: 26 Gauge, 2" X 2" X 10'

Flashing Metal: 26 Gauge, 16" wide

Tin Caps: 29 gauge, 1 5/8" diameter

1.2 Method of Roof Construction:

PRI Asphalt Technologies constructed the deck used for this testing as described in the following and in accordance with the requirements of PA 100-95 and the South Florida Building Code: Section 3403.5.

Deck

The plywood deck was constructed with standard 2 X 6 framing members, spaced 24 inches apart and 15/32 inch thick APA 32/16 span rated sheathing. The sheathing was attached with 8d common nails at 6 inches on center at the edges and 12 inches on center at intermediate supports. The 48 square foot test deck was 8 feet wide at the ridge and 6 feet from ridge to eave. The roof pitch was 2 inches in 12 inches. The test deck was constructed with 8 inch of fascia and 12 inches of soffit. A 5-inch wide by 3-1/4 inch deep, painted 0.027 aluminum gutter was installed at the 8-foot eave. The gutter brackets supporting the gutter were placed 24 inches on center. Gutter and mounting hardware was purchased at a local distributor and installed per the manufactures installation instructions.

Underlayment

The underlayment for this deck, ASTM D 226, Type I (No. 15) felt, was installed in accordance with the minimum requirements set forth in Section 3403.5 of the South Florida Building Code. The underlayment was applied in two layers by applying a 19 inch wide starter strip at the eave and then applying additional sheets to cover the deck with a 19 inch overlap and minimum 6 inch end laps. The underlayment was fastened to the deck using 1 1/4 inch X 3/8 inch galvanized ring shank nails through 29 gauge 1 5/8 inch diameter tin caps placed 6 inches on center at the edges and laps and 12 inches on center in the field.

Metal Flashing

Galvanized, 26 gauge, 2 inch X 2 inch metal drip edge was installed at the perimeter of the deck by first embedding in a 1/8 inch thick layer of roof cement and then fastening 6 inches on center with 1 1/4 inch X 3/8 inch galvanized ring

shank nails. Any gaps were sealed with roof cement. All corners were overlapped

a minimum of 5 inches. The metal drip edge, after fastening, was primed with asphalt primer and a 1/8 inch thick X 6 inch wide layer of roof cement was applied, a 6 inch wide strip of asphalt coated open mesh fabric was embedded in the cement and a second 1/8 inch thick layer of roof cement used on top of the fabric to finish the application.

Shingle Application

The shingles were applied using a 7 inch width starter strip and at the eve edge of the test deck. Each starter strip was set in a 6 inches or wider bed of flashing cement and fastened with at least six 1 1/4 X 3/8 inch galvanized ring shank, roofing nails. The shingles were applied at a 6 inch offset. The shingles were secured to the deck with 1 1/4 X 3/8 inch ring shank galvanized roofing nails at a rate of six nails per shingle. All shingle cutouts and end pieces were positioned such that no piece exceeded 2 inches distance from the nail fastener. At the rake edges of the deck, the singles were fastened with 1 1/4 inch X 3/8 inch galvanized ring shank nails and cemented.

Gutter Topper Application

The Gutter Topper was installed per the manufactures installation instructions. The Gutter Topper was fastened to the gutter with painted 1/4 x 1/2 inch hex head corrosion resistant sheet metal screws placed 12 inches on center where the Gutter Topper contacted the outside edge of the gutter. The Gutter Topper test sample was fastened to the roof by lifting the second course of shingles and placing #8 x 1 inch flat head corrosion resistant screws 12 inches on center. The lifted shingles were re sealed with GEOCEL sealant. The Gutter Topper end terminations (caps) were fastened to the Gutter Topper with (3) 1/4 x 1/2 inch hex head corrosion resistant sheet metal screws at each termination. The Gutter Topper test sample incorporated an end lap joint and gutter end terminations.

1.3 Method of Conditioning

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The deck with roofing system applied was conditioned for six hours for three days outside. A recording thermocouple verified that the surface temperature of the shingles reach 135°F for six hours each of the conditioning days.

1.4 Absorptive Material Description and Wind Stream, Simulated Rain Fall, and Flow

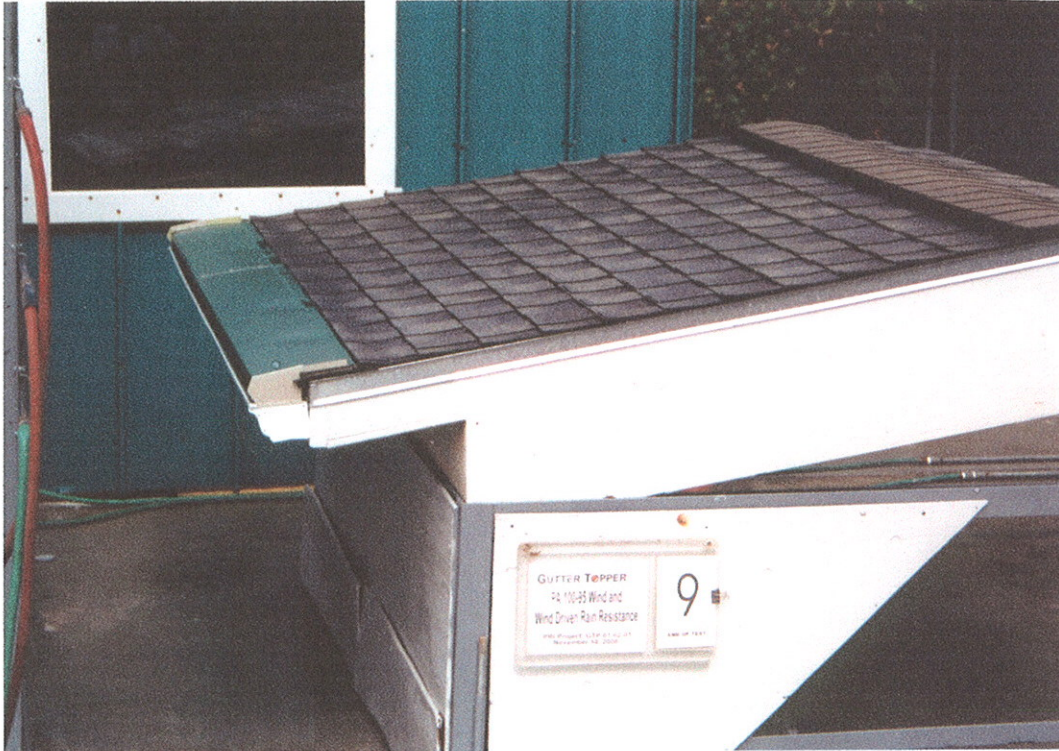
Meter Calibration Data and Calculations.

The absorptive material used for the simulated rainfall calibration was 46 gauge organic felt. See Appendix A for calibration data.

1.5.1 Photograph of Deck Immediately Prior to Commencement of Testing.



1.5.2 Photograph of Deck After Testing



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1.6 Detailed Observations.

TAS 100(A) DATA AND OBSERVATIONS

Gutter Topper LTD
 November 10, 2000

Slope: 2" in 12" **Air Temp:** 65 °F **Deck Conditioning:** 3 Days@6Hrs@135°F

Summary Observations: There was no lift or movement of any Gutter Topper components noted during the duration of the test.

Air Velocity Condition	Simulated Rainfall Condition	Duration
35 mph No lift or movement of any Gutter Topper components.	8.8 in/hr	15 min
0 mph	Off	5 min
70 mph No lift or movement of any Gutter Topper components	8.8 in/hr	15 min
0 mph	Off	5 min
90 mph No lift or movement of any Gutter Topper components	8.8 in/hr	15 min
0 mph	Off	5 min
110 mph No lift or movement of any Gutter Topper components	8.8 in/hr	5 min
0 mph	Off	5 min
END	END	END

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1.7 Total volume of water, which infiltrated system.

Not Applicable

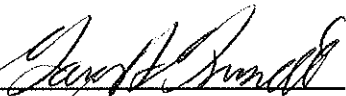
1.8 Calculated percentage of water which infiltrated ridge area ventilation system based on the total amount of water sprayed at the test deck.

Not Applicable

2.0 Result of Testing:

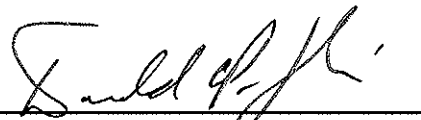
No lift or movement any component on the deck was observed during testing.

Signed:



Gary H. Griswold
Testing Services manager

Approved:



Donald C. Portolio
Vice President

Date:

4-3-01

Date:

4/3/01

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