

CORPORATE HEADQUARTERS

6655 Garden Road
Riviera Beach, Florida 33404
HTLTEST.COM
P: 888.477.2454
F: 561.881.0075

September 27, 2010

Mr. Russ Dorsey
Elastikote, LLC
1480 Englewood Ave.
Akron, Ohio 44305

Re: Elastikote® Series 1000 Basic Reinforced (BR) Liquid Membrane System (Job# 0585-0801-10)

Dear Mr. Dorsey;

The enclosed test report package contains documents for Elastikote, LLC's Elastikote® Series 1000 Basic Reinforced (BR) Liquid Membrane System tested by Hurricane Test Laboratory, LLC (HTL).

This test report package includes the following items:

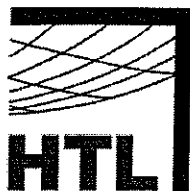
- HTL Test Report #0585-0801-10 (Sheets 1-5)
- Elastikote, LLC drawing labeled "UL580 / 1897 UPLIFT RESISTANCE TEST" (Appendix A, Sheet 1)

If you have any questions, please feel free to contact our office.

Sincerely,

HURRICANE TEST LABORATORY, LLC





FLORIDA | GEORGIA | TEXAS
CORPORATE HEADQUARTERS
 6655 Garden Road
 Riviera Beach, FL 33404
 (561)-881-0020
 HTLTEST.COM

Test Report #: 0585-0801-10
 Report Expiration: 9/27/15
 Specimen#: 1
 Page 1 of 5

Elastikote, LLC

ElastiKote® Series 1000 Basic Reinforced (BR) Liquid Membrane System
 Test Report #: 0585-0801-10

1.0 MANUFACTURER'S IDENTIFICATION

- 1.1 Name of Applicant: Elastikote, LLC
 1480 Englewood Ave.
 Akron, Ohio 44305
 Voice: 800.992.1053
 Fax: 330.669.2552
- 1.2 Contact Person: Russ Dorsey

2.0 LABORATORY IDENTIFICATION

- 2.1 HTL Test Notification: N/A
- 2.2 HTL Lab Certifications: Miami-Dade County (05-1014.01); Florida Building Code (TST1527); IAS (TL-244); AAMA; WDMA; Keystone Certifications; Texas Department of Insurance

3.0 SCOPE OF WORK

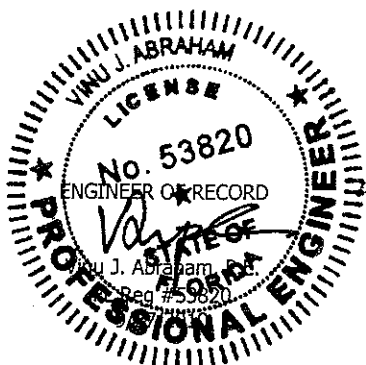
- 3.1 Introduction
 Elastikote, LLC retained Hurricane Test Laboratory, LLC (HTL) to conduct roof uplift testing on their Elastikote® Series 1000 Basic Reinforced (BR) Liquid Membrane System per the requirements of UL 580/1897.
- 3.2 Report Information
 Table 3.1 provides the test dates for the specimen number.

Table 3.1: Specimen Test Dates

| Specimen # | Test Date |
|------------|---------------------|
| 1 | 9/7/2010 - 9/8/2010 |

4.0 PRODUCT IDENTIFICATION

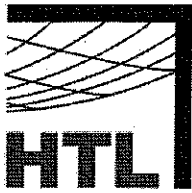
- 4.1 Product Type: Roof Covering System
- 4.2 Overall Size: 120" (wide) x 120" (long) – Roof Deck
- 4.3 General Description: This sample consisted of a 120" x 120" roof structural frame fabricated from nominal 2" x wood with intermediate rafters spaced 24" on center. This assembly was sheathed with a single layer of 5/8" (nominal) CDX Plywood and then the roof covering system was applied directly to the surface of the roof deck.



REPORT WRITER

 Angela Abramczyk

9/27/2010



- 4.4 Drawing: This test report is incomplete if not accompanied by Elastikote, LLC drawing labeled "UL580 / 1897 UPLIFT RESISTANCE TEST" (1 sheet) bearing the ink stamp of HTL.
- 4.5 Sample Source: Sample provided by Elastikote, LLC

5.0 COMPONENT DESCRIPTION

- 5.1 Structural Support Frame:
 Table 5.1 provides the structural support frame components used for the test specimen.

Table 5.1: Structural Support Frame Components

| Item | Description |
|----------------------|---|
| Intermediate Rafters | There were four (4) intermediate rafters used in this specimen - spaced 24" on center - that were each fabricated from 2" x southern Yellow Pine timber planks. |
| Plywood Substrate | A single layer of 5/8" (min. 19/32" thick) CDX Plywood was utilized across the entire surface of this specimen. The plywood was attached to the structural support frame using 8d x 2-3/8" ring shank nails spaced 4" on center at the perimeter and plywood butt joints and 6" on center in the field. |

- 5.2 Roof Covering System:
 The roof covering system was fabricated using the materials described in Table 5.2 (from the inside out).

Table 5.2: Roof Covering System Components

| Item | Description | Thickness |
|--|---|-------------------------|
| 1st Coat | ElastiKote® Series 1000 White (roller-applied) | 14 mils (wet) thickness |
| Reinforcing Scrim (embedded in 1st coat) | TIETEX International Ltd Style 272 Stitchbond 100% Polyester Reinforcement Scrim (embedded in Elastikote® Series 1000 White by roller pressure) with 3" longitudinal overlaps | 18 Ga. |
| 2nd Coat | ElastiKote® Series 1000 white (roller-applied) | 7 mils (wet) thickness |
| 3rd Coat | ElastiKote® Series 1000 white (roller-applied) | 21 mils (wet) thickness |

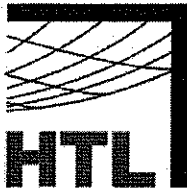
See Elastikote, LLC drawing labeled "UL580 / 1897 UPLIFT RESISTANCE TEST", "APPLICATION NOTES" for fabrication instructions.

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6.0 TEST RESULTS

6.1 Test Conclusion

Table 6.1 provides the test results for the specimen.

Table 6.1: Test Results

| Test Method | Conclusion |
|--|----------------------------|
| UL 580 | PASS (Class 30,60, and 90) |
| UL 1897 Maximum Combined Sustained Pressure | 318.5 psf |
| UL 1897 Combined Failure Pressure | 333.5 psf |

7.0 TEST SEQUENCE

Table 7.1 provides the test sequence for the specimen.

Table 7.1: Test Sequence

| Test Sequence |
|-------------------------|
| 1. UL 580 Class 30 Test |
| 2. UL 580 Class 60 Test |
| 3. UL 580 Class 90 Test |
| 4. UL 1897 |

8.0 UL 580 TEST RESULTS

The test results for the specimen are presented in the following tables. Tables 8.1, 8.2, and 8.3 provide the Class 30, 60 and 90 test load data respectively. No signs of failure were noticed during class 30, 60, and 90 of the UL 580 test. No failures were observed in any components of the roof covering system.

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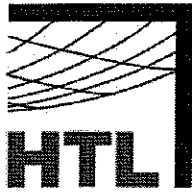


Table 8.1: Class 30 Load Data

| Test Phase | Test Duration (min) | Positive Pressure (psf) | Negative Pressure (psf) | Test Status |
|----------------|---------------------|-------------------------|-------------------------|-------------|
| 1 | 5 | 0.0 | 16.2 | PASS |
| 2 | 5 | 13.8 | 16.2 | PASS |
| 3 ¹ | 60 | 13.8 | 8.1 – 27.7 | PASS |
| 4 | 5 | 0.0 | 24.2 | PASS |
| 5 | 5 | 20.8 | 24.2 | PASS |

1. Cyclic stage with 8-12 seconds per cycle.

Table 8.2: Class 60 Load Data

| Test Phase | Test Duration (min) | Positive Pressure (psf) | Negative Pressure (psf) | Test Status |
|----------------|---------------------|-------------------------|-------------------------|-------------|
| 1 | 5 | 0.0 | 32.3 | PASS |
| 2 | 5 | 27.7 | 32.3 | PASS |
| 3 ¹ | 60 | 27.7 | 16.2 – 55.4 | PASS |
| 4 | 5 | 0.0 | 40.4 | PASS |
| 5 | 5 | 34.6 | 40.4 | PASS |

1. Cyclic stage with 8-12 seconds per cycle.

Table 8.3: Class 90 Load Data

| Test Phase | Test Duration (min) | Positive Pressure (psf) | Negative Pressure (psf) | Test Status |
|----------------|---------------------|-------------------------|-------------------------|-------------|
| 1 | 5 | 0.0 | 48.5 | PASS |
| 2 | 5 | 41.5 | 48.5 | PASS |
| 3 ¹ | 60 | 41.5 | 24.2 – 48.5 | PASS |
| 4 | 5 | 0.0 | 56.5 | PASS |
| 5 | 5 | 48.5 | 56.5 | PASS |

1. Cyclic stage with 8-12 seconds per cycle.

9.0 OPTIONAL FAILURE TEST (per UL 1897)

"Subsequent to the completion of Phase 5 of the Class 90 test sequence, the test specimen may be subjected to additional static uplift pressures. Continuation of the test to increased pressure levels is the option of the manufacturer."

The highest combined pressure the test specimen successfully resisted for 1 minute was 318.5 psf. The specimen failed when the fasteners pulled out of the plywood at the center while attempting to resist a sustained combined pressure of 333.5 psf. Table 9.1 provides the detailed test results of the failure test per UL 1897.

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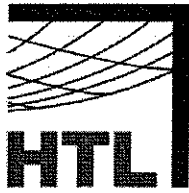


Table 9.1: Optional Failure Test Results

| Test Phase | Pressure Duration (min) | Negative Pressure (psf) | Positive Pressure (psf) | Combined Pressure (psf) | Status |
|------------|-------------------------|-------------------------|-------------------------|-------------------------|--------|
| 1 | 1 | 30 | 48.5 | 78.5 | PASS |
| 2 | 1 | 45 | 48.5 | 93.5 | PASS |
| 3 | 1 | 60 | 48.5 | 108.5 | PASS |
| 4 | 1 | 75 | 48.5 | 123.5 | PASS |
| 5 | 1 | 90 | 48.5 | 138.5 | PASS |
| 6 | 1 | 105 | 48.5 | 153.5 | PASS |
| 7 | 1 | 120 | 48.5 | 168.5 | PASS |
| 8 | 1 | 135 | 48.5 | 183.5 | PASS |
| 9 | 1 | 150 | 48.5 | 198.5 | PASS |
| 10 | 1 | 165 | 48.5 | 213.5 | PASS |
| 11 | 1 | 180 | 48.5 | 228.5 | PASS |
| 12 | 1 | 195 | 48.5 | 243.5 | PASS |
| 13 | 1 | 210 | 48.5 | 258.5 | PASS |
| 14 | 1 | 225 | 48.5 | 273.5 | PASS |
| 15 | 1 | 240 | 48.5 | 288.5 | PASS |
| 16 | 1 | 255 | 48.5 | 303.5 | PASS |
| 17 | 1 | 270 | 48.5 | 318.5 | PASS |
| 18 | 1 | 285 | 48.5 | 333.5 | FAIL |

10.0 CERTIFICATION AND DISCLAIMER STATEMENT

All tests performed on this test specimen were conducted in accordance with the specifications of the applicable codes, standards and test methods listed below by HTL, LLC. HTL, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products tested at HTL. HTL is not owned, operated or controlled by any company manufacturing or distributing products it tests. This report is only intended for the use of the entity named in Section 1.0 of this report. Detailed assembly drawings showing thickness of all panels/clips, panel profiles, accessories and fastener and all other applicable layouts are on file and have been compared to the test specimen submitted. A copy of this test report along with representative sections of the test specimen will be retained at HTL for a period of three (3) years. All results obtained apply only to the specimen tested and they do indicate compliance with the performance requirements of the test methods and specifications listed in the following section.

11.0 APPLICABLE CODES, STANDARDS, AND TEST METHODS

- UL 580** – Tests for Uplift Resistance of Roof Assemblies
- UL 1897** – Uplift Tests for Roof Covering Systems

12.0 WITNESSES (ALL OR PARTIAL)

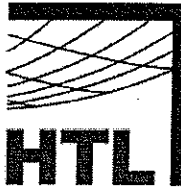
| | | |
|--------------------------|------------------------------|----------|
| Vinu J. Abraham, P.E. | CEO | HTL, LLC |
| Kristin Norville, E.I.T. | Assistant Operations Manager | HTL, LLC |
| Freddie Henderson | Lab Technician | HTL, LLC |
| Veron Wickham | Lab Technician | HTL, LLC |

ENGINEER OF RECORD

9/27/2010

REPORT WRITER

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APPENDIX A:
Elastikote, LLC drawing "UL580 / 1897 UPLIFT RESISTANCE TEST"
1 SHEET

UL580 / 1897 UPLIFT RESISTANCE TEST

ElastiKote® Series 1000 Basic Reinforced (BR) Liquid Membrane System

Elastikote LLC

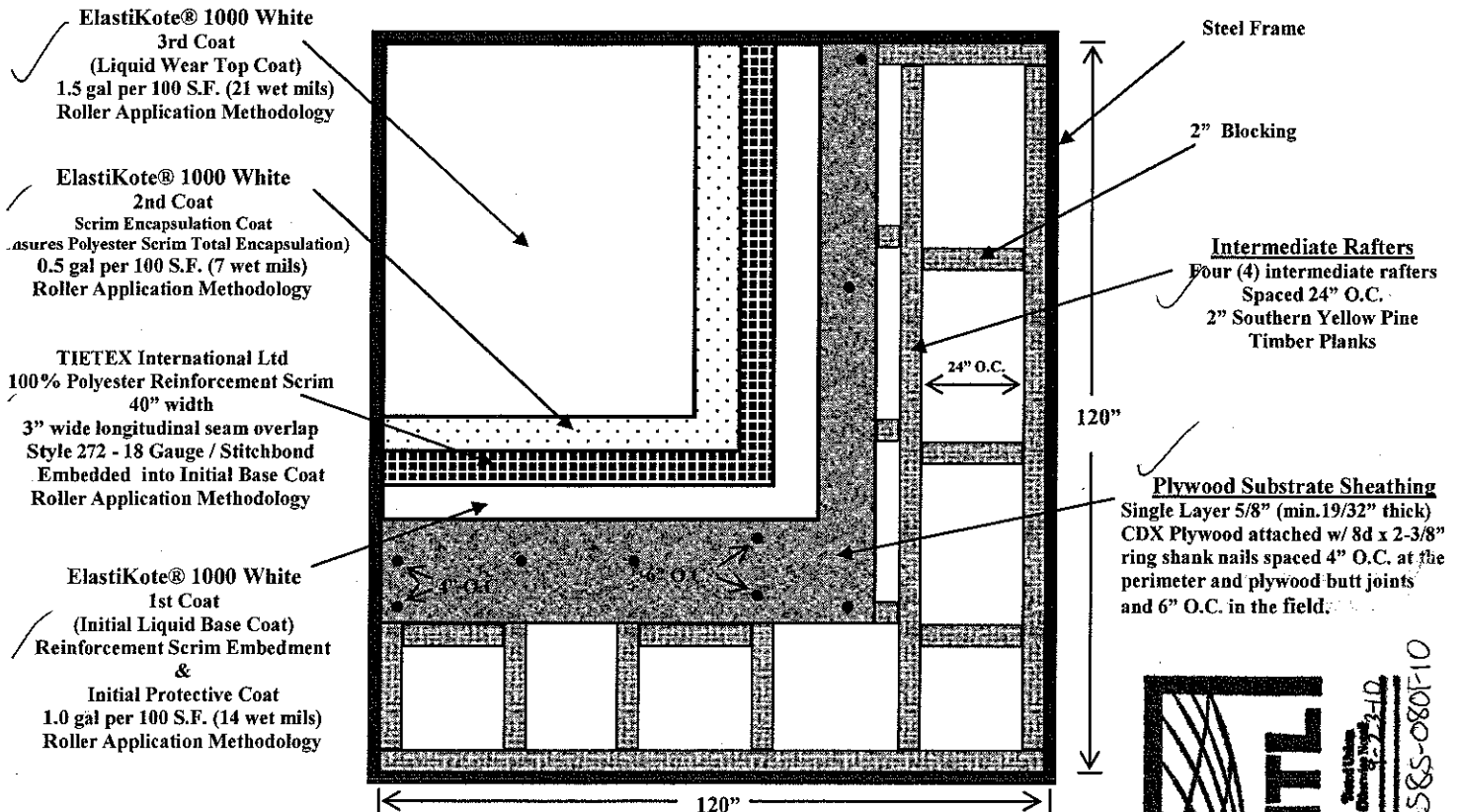
1480 Englewood Ave

Akron, OH 44305

ROOF COVERING SYSTEM STRUCTURAL COMPONENTS

120" (wide) x 120" (long) - Roof Deck

This sample consisted of a 120" x 120" roof structural frame fabricated from nominal 2" x wood with intermediate rafters spaced 24" on center. This assembly was sheathed with a single layer of 5/8" (nominal) CDX Plywood and then the roof covering system was applied directly to the surface of the roof deck.

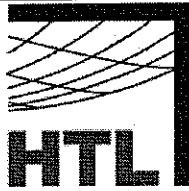


0585-080F10

ElastiKote® 1000 White Liquid Membrane is a patented (Miami-Dade County Approved), ready to use, single component, thermoplastic polymer fluid applied membrane. The membrane has superior physical properties with emphasis on thermal cycling stability, puncture resistance, UV resistance, reflectivity, and water tightness.

APPLICATION NOTES: All fluid applications (total of 3) to utilize Elastikote® 1000 White liquid membrane exclusively

- Inspect target surface area to ensure deck is properly clean and dry in preparation of application process
- Safely Heat Elastikote® 1000 White liquid membrane to 100° F for ease of application and proper application coverage control
Carefully stir product with paddle type apparatus to ensure no air entrainment occurs and all product solids are in suspension
- Pour Elastikote® 1000 White liquid membrane into roller pail
- Using a 3/4" nap roller apply initial liquid base coat (1st coat) at a rate of 1.0 gallon (14 wet mils) per 100 square feet using standard roller methodology
Only apply liquid product to a width of the reinforcement scrim plus 3 inches to allow installation access of reinforcement scrim
- Manually install reinforcement scrim being careful to avoid and remove all wrinkles, fish mouths, and air bubbles.
- Carefully roll reinforcement scrim into initial liquid base coat (1st coat) to ensure proper embedment. Overlap all seam laps a minimum of 3 inches
- After embedment of reinforcement scrim apply 2nd coat by roller at a rate of 0.5 gallon (7 wet mils) using wet on wet methodology to ensure complete encapsulation
- Allow reinforced fluid applied membrane system to properly dry (flash off) before applying 3rd and final coat (approximately 2 - 4 hours)
- Using a visual and "touch" inspection determine that system is properly dry and acceptable to receive 3rd and final application of liquid membrane
- Carefully follow previous identified protocol for roller application and product preparation. Always use new rollers for each coating application.
- Using a 3/4" nap roller apply Top liquid wear coat (3rd and final) at a rate of 1.5 gallon (21 wet mils) per 100 square feet using standard roller methodology
- Allow system to properly dry for a minimum of 24 hours before initiating any type of foot traffic



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Revision Log

| Rev. # | Date | Page(s) | Section # | Revision(s) |
|--------|---------|---------|-----------|-------------------------|
| 0 | 9/27/10 | N/A | N/A | Original report issued. |