Florida Building Code Online Product Approval

Information Sheet

Updated: 6/09



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Community Affairs	Product Approval Menu > Product or Application Search > y	Application List > Application Detail
	FL #	FL4911-R1
▶ COMMUNITY PLANNING	Application Type	Revision
▶ HOUSING & COMMUNITY	Code Version	2007
DEVELOPMENT	Application Status	Approved
 EMERGENCY MANAGEMENT 	Comments	, pprovou
 OFFICE OF THE SECRETARY 	Archived	
	Product Manufacturer	GAF Materials Corporation
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	Quality Assurance Representative	
	Address/Phone/Email	
	Category	Roofing
	Subcategory	Waterproofing
	Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer Ø Evaluation Report - Hardcopy Received
	Florida Engineer or Architect Name who developed the Evaluation Report	Robert Nieminen
	Florida License	PE-59166
	Quality Assurance Entity	Underwriters Laboratories Inc.
	Quality Assurance Contract Expiration Date	12/31/2011
	Validated By	John W. Knezevich, PE
	. and to a by	
		Validation Checklist - Hardcopy Received
	Certificate of Independence	FL4911_R1_COI_Trinity_ERD_Certificaiton_of Independence.pdf

Referenced Standard and Year (of Standard)	<u>Standard</u>	Year
	ASTM D6083	1997
	ASTM D6163	2000
	ASTM D6164	2000
	ASTM D6222	2002
	FM 4470	1992
	TAS 114	1995

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	09/26/2008
Date Validated	10/08/2008
Date Pending FBC Approval	10/29/2008
Date Approved	12/10/2008

Summary	ummary of Products							
FL #	Model, Number or Name	Description						
4911.1	GAF Waterproofing Systems	Modified Bitumen and Liquid Applied Waterproofing Systems						
Approved for use in HVHZ: No Approved for use outside HVHZ: Yes		R1.pdf Verified By: Robert Nieminen PE-59166						
Design F Other: T herein rel system. R	he design pressure	Created by Independent Third Party: Yes Evaluation Reports <u>FL4911_R1_AE_er092608FINAL_GAF_WaterproofingFL4911-</u> <u>R1.pdf</u> Created by Independent Third Party: Yes						



DCA Administration

Department of Community Affairs Florida Building Code Online Codes and Standards 2555 Shumard Oak Boulevard Tallahassee, Florida 32399-2100 (850) 487-1824, Fax (850) 414-8436 © 2000-2005 The State of Florida. All rights reserved. <u>Copyright and Disclaimer</u> Product Approval Accepts:







EVALUATION REPORT

GAF Materials Corporation 1361 Alps Road Wayne, NJ 07470 EXTERIOR RESEARCH & DESIGN, LLC. Certificate of Authorization #9503 353 Christian Street, Unit 13 Oxford, CT 06478 PHONE: (203) 262-9245 FAX: (203) 262-9243

Evaluation Report 01506.09.08 FL4911-R1 Date of Issuance: 09/ 26/ 2008

SCOPE:

This Evaluation Report is issued under Rule 9B-72 and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been designed to comply with the 2007 Florida Building Code.

DESCRIPTION: GAF Waterproofing Systems

LABELING: Each unit shall bear labeling in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Evaluation Report number preceded by the words "TRINITY|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 4, plus a 2-page Appendix.

Prepared by:

Robert J.M. Nieminen, P.E. Florida Registration No. 59166, Florida DCA ANE1983 **CERTIFICATION OF INDEPENDENCE:**



The facimilie seal appearing was authorized by Robert Nieminen, P.E. on 09/26/2008 This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

- 1. Exterior Research & Design, LLC. d/b/a Trinity|ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
- 2. Exterior Research & Design, LLC. d/b/a Trinity|ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
- 3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
- 4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.



ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing

Sub-Category: Waterproofing

Compliance Statement: Waterproofing Systems, as produced by GAF Materials Corporation, have demonstrated compliance with the following sections of the Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	Property	<u>Standard</u>	Year
1504.3.1	Wind	FM 4470	1992
1515.1.1	Wind	TAS 114	1995
1507.11.2	Physicals	ASTM D6163	2000
1507.11.2	Physicals	ASTM D6164	2000
1507.11.2	Physicals	ASTM D6222	2002
1507.15.2	Physicals	ASTM D6083	1997

3. **REFERENCES**:

<u>Entity</u>	Examination	<u>Reference</u>	<u>Date</u>
FM Approvals	FM 4470	3015619	03/15/2006
Miami-Dade	Various	07-1130.03	02/28/2008
Miami-Dade	Various	07-0424.08	06/21/2007
Momentum Tech	Physical Properties	EX14A3A	02/26/2004
PRI	Physical Properties	GAF-054-02-01	07/11/2004
PRI	Physical Properties	GAF-087-02-01	09/26/2005
PRI	Physical Properties	GAF-110-02-01	02/15/2006
PRI	Physical Properties	GAF-122-02-01	05/07/2006
PRI	Physical Properties	GAF-084-02-01	05/07/2006
PRI	Physical Properties	GAF-082-02-01	05/07/2006
PRI	Physical Properties	GAF-065-02-01	12/14/2006
Underwriters Labs	Physical Properties	99NK29257	03/16/2000
Underwriters Labs	Quality Assurance	R1306	08/16/2005
Underwriters Labs	Quality Assurance	R14948	09/18/2006

4. **PRODUCT DESCRIPTION:**

This Evaluation Report covers GAF Waterproofing Systems installed in accordance with GAF published installation instructions and the Limitations / Conditions of Use herein. The following products make up the subject systems.

Table 1A: Products for GAF RUBEROID Waterproofing Systems					
Type	Product		Specification		
Туре	Product	Reference	Grade	Туре	
Base/ Ply Membrane:	Ruberoid TORCH Smooth	ASTM D6163	S	I	
Cap Membranes:	Ruberoid MOP Smooth	ASTM D6163	S	I	



	Table 1B: Products for GAF TOPCOAT W	aterproofing Systems	
Туре	Product	Specification	Use
	TOPCOAT CRT	ASTM D6083	Waterproofing
	TOPCOAT Elastomeric Membrane	ASTM D6083	Waterproofing
	TOPCOAT Surface Seal SB	ASTM D6083	Waterproofing
	TOPCOAT Topester Fabric	N/A	Reinforcement
	TOPCOAT Flashing Grade	TAS 139	Flashing
	TOPCOAT Liquid Fabric Flashing Grade	N/A	Flashing
	TOPCOAT SB-900	N/A	Flashing
Liquid Applied	TOPCOAT Flexseal	TAS 139	Flashing/Detailing
	TOPCOAT Fastener Grade	N/A	Detailing
	TOPCOAT MP-300	N/A	Primer
	TOPCOAT XR-2000	N/A	Primer
	TOPCOAT Precote	N/A	Primer
	TOPCOAT One-Step	N/A	Primer
	TOPCOAT WALLCOTE Block Primer	N/A	Primer
	TOPCOAT WALLCOTE Flashing Sealant	N/A	Sealant

5. LIMITATIONS:

- 5.1 This Evaluation Report is not for use in HVHZ.
- 5.2 Refer to a current Roofing Materials Directory for fire ratings of this product.
- 5.3 Unless otherwise noted in Appendix 1, roof decking and its attachment shall be specified and installed to meet project design criteria to the satisfaction of the AHJ.
- 5.4 For non-insulated or for fully-adhered insulation, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems
- 5.5 For bonded insulation or membrane over existing substrates in a re-roof (tear off) installation, the existing deck shall be examined for compatibility. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with ASTM E907 or FM LPDS 1-52 shall be conducted on mock-ups of the proposed new waterproofing assembly.
- 5.6 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or RAS 111, except the basic wind speed shall be determined from FBC Figure 1609.
- 5.7 While not required by for non-HVHZ FBC, Trinity|ERD recommends integrity flood testing of all waterproofing systems in accordance with ASTM D5957 prior to placement of the overburden material. (Reference: FBC HVHZ 1519.16.6) The requirement for such testing is the option of the AHJ.
- 5.8 All products in the roof assembly shall have quality assurance audit in accordance with the FBC and F.A.C. Rule 9B-72.

6. INSTALLATION:

- 6.1 GAF Waterproofing Systems shall be installed in accordance with GAF published installation instructions by contractors Approved by GAF Materials Corporation, subject to the Limitations / Conditions of Use noted herein.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. Flashing and detailing shall be in accordance with GAF published installation instructions using GAF specified materials to establish a watertight condition.

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7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Ruberoid: Fresno, CA; Fontana, CA; Mobile, AL; Mt. Vernon, IN; North Branch, NJ; Savannah, GA; Stockton, CA

TOPCOAT: Walpole, MA

9. QUALITY ASSURANCE ENTITY:

Underwriters Laboratories – QUA1743

- THE TWO PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -



The following notes apply to the systems outlined herein:

- 1. Decks shall be in accordance with FBC requirements to the satisfaction of the AHJ. Wind load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- 2. Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - > Hot asphalt (HA): Full Coverage at 25-30 lbs/square. If applying to concrete deck; deck shall be primed with ASTM D41 primer.
 - > OlyBond 500 / OlyBond Green: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. using OMG PaceCart or SpotShot applicator.
 - > TITESET Insulaton Adheisve: Continuous 21/2 to 31/2-inch ribbons, 12" o.c.
- 3. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
- 4. For fully bonded assemblies, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
- 5. Unless otherwise noted, base and top ply membranes are designated as follows based on method of installation:

Reference	Layer	Membrane	Installation	
	Base	Ruberoid MOP (Smooth)	List see halt at 25 lbs/an	
AA	Тор	Ruberoid MOP (Smooth)	Hot asphalt at 25 lbs/sq.	
	Base	Ruberoid TORCH (Smooth)	Last welded	
HW	Тор	Ruberoid TORCH (Smooth)	Heat welded	
CA	Base	Ruberoid MOP (Smooth)	Matrix 102 Select SBS Adhesive (Ruberoid Modified	
CA	Тор	Ruberoid MOP (Smooth)	Bitumen Adhesive) at 1 to 2 gallon/square	



	TABLE 1A: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER									
System	System		Base Insulation		Top Insulation Wa		Waterpro	Waterproofing System		
No.	- Deck Pr		Туре	Attach	Туре	Attach	Base Ply(s)	Top Ply	Course or Over Burden	MDP (psf)
C-1.	Concrete	D41	Min. 1.5" GAFTEMP Isotherm	Hot asphalt, OlyBond 500 or TITESET	Min. ½" DensDeck	Hot asphalt, OlyBond 500 or TITESET	One or more HA or HW	HA or HW	Drainage Board and concrete topping slab	N/A

				TION or REROOF (Tear-Off) –		
System	Death	Primer	Waterproofin	g System	Waaring Course of Orea Bundan	MDP (psf)
No.	Deck	Primer	Base Ply(s)	Top Ply	Wearing Course or Over Burden	
C-2.	Concrete	ASTM D41	One or more HA, HW or CA	HA, HW or CA	Drainage Board and concrete topping slab	N/A
C-3.	Concrete	ASTM D41	One or more HA	НА	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products thin-set mortar applied with a ¼" notched trowel in accordance with ANSI A108.5	-447.5
C-4.	Concrete	ASTM D41	One or more TA	ТА	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products thin-set mortar applied with a ¼" notched trowel in accordance with ANSI A108.5	-537.5
C-5.	Concrete	None	Two or more coats TOPCOAT CRT or TOPCOAT Elastomeric Membrane at 1.25 gallons/square per coat to min. wet mil thickness of 20 mils for each coat. Allow 24 hours to cure and inspect for and repair defects.	One or more finish coats TOPCOAT CRT or TOPCOAT Elastomeric Membrane at 1.75 gallons/square per coat to min. wet mil thickness of 28 mils per coat.	None	-576.0
C-6.	Concrete	None	Two or more coats TOPCOAT CRT or Membrane at 1 gallons/square per c 16 mils for each coat. Allow 24 hou repair defects.	oat to min. wet mil thickness of	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products Polymer Modified Portland Cement applied with a ¼" notched trowel in accordance with ANSI A108.5	-607.5
C-7.	Concrete	None	Two or more coats TOPCOAT Surface Seal at 1 gallons/square per coat to min. wet mil thickness of 16 mils for each coat. Allow 24 hours to cure and inspect for and repair defects.		Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products Polymer Modified Portland Cement applied with a ¼" notched trowel in accordance with ANSI A108.5	-591.0
C-8.	Concrete	TOPCOAT WALLCOTE Block Prime at 0.5 gal/sq.	Two or more coats TOPCOAT Surfac coat to min. wet mil thickness of 16 hours to cure and inspect for and re	mils for each coat. Allow 24	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products Polymer Modified Portland Cement applied with a ¼" notched trowel in accordance with ANSI A108.5	-627.5