



PRI Construction Materials Technologies LLC

6412 Badger Drive
Tampa, FL 33610
813.621.5777
<https://www.pri-group.com/>

Laboratory Test Report

Report for: Evgeny Ognevenko
Metal Zone Roofing and Fencing LLC
5585 Reistertown Rd.
North Port, FL 34291

Product Name: Queentile Verona

Project No.: 2213T0008

Dates Tested: Jun. 23 – 28, 2022

Test Methods: UL 580-06
UL 1897-12

Results Summary: Specimen No. 1: -307psf; UL 580 Class 90

Purpose: Determine the uplift resistance of Queentile Verona in accordance with **UL 580-06 Test for Uplift Resistance of Roof Assemblies** and **UL 1897-12 Uplift Tests for Roof Covering Systems**.

Test Methods: Testing was completed as described in UL 580-06 *Test for Uplift Resistance of Roof Assemblies* and UL 1897-12 *Uplift Tests for Roof Covering Systems*. Specimens were tested to the loading schedule as described in UL 580, and where applicable, incrementally loaded in accordance with UL 1897 using the TAS 125 combined loading schedule until failure.

Sampling: The following materials were received by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
Queentile Verona	Tampa, FL	Jun. 23, 2022	Metal Zone
#9 x 2.5" HWH screws	Tampa, FL	Jun. 22, 2022	Metal Zone

All other roofing components were procured by PRI Construction Materials Technologies LLC through local distribution.

2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Product Description:	Queentile Verona:	1102mm wide x 380mm long 26ga. stone coated metal panel installed with 1058mm x 345mm exposure
	#9 x 2.5" HWH screws:	#9 x 2.5" Teks Roofing Screws; Sharp Point; HWH; 0.5" O.D. sealing washer
Deck Description:	Underlayment:	ASTM D 226 Type II felt installed with minimum 4" side-lap and 6" end-laps and fastened using 12 ga., 1-1/4" ring shank nails and 32 ga., 1-5/8" tin caps spaced 6" o.c. along the laps and two staggered rows 12" o.c. in the field of the roll.
	Deck:	CAT 15/32 PS 1-09, APA span rated CDX plywood sheathing installed over No. 2 lumber supports spaced 24" o.c. Decking attached with 0.113" x 2-3/8" ring shank nails spaced 3" o.c. along the perimeter and intermediate supports.
	Specimen Sealing:	Polyethylene film placed under the metal roof panels; tape ¹

¹It is the judgment of the test engineer that the film and tape used to seal the specimen against air leakage did not influence the results of the test.

Results: Test data are contained in Appendix A. Photographs after testing are shown in Appendix C.

Table 1. Summary of Test Results

Specimen No.	Panel	Attachment	Passing Uplift Pressure (psf)	Failure Mode
1	Queentile Verona	(12) #9 x 2.5" HWH screws installed in each panel. Six (6) screws were installed 8" o.c. across the back shelf of the panel at the panel trough. Six (6) screws were installed 8" o.c. at a 45degree angle at the panel trough through the headlap at the apex of the vertical to horizontal transition.	307	Fastener withdrawal

Classification:

Specimen No. 1 installed as described herein meet **Class 90** requirements.

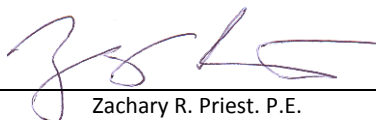
2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Statement of Attestation:

Testing was conducted in accordance with **UL 580-06 Test for Uplift Resistance of Roof Assemblies** and **UL 1897-12 Uplift Tests for Roof Covering Systems**. The test results and interpretations presented herein are representative of the materials supplied by the client.

Signed: _____



Zachary R. Priest, P.E.
Director

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	08/15/2022	8	NA

2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Appendix A: Test Data

Specimen No. 1 (UL 580 Load Schedule)

Class 30 Loading Sequence (UL 580)							
Duration (min)	Positive Pressure	Negative Pressure	Max Deflection Under Load (in.)				Result
			1	2	3	4	
5	0.0	16.2	0.100	0.100	0.050	0.100	Pass
5	13.8	16.2	0.150	0.200	0.100	0.050	Pass
60	13.8	8.1-27.7	0.200	0.200	0.150	0.100	Pass
5	0.0	24.2	0.150	0.150	0.100	0.100	Pass
5	20.8	24.2	0.250	0.200	0.150	0.100	Pass
Permanent Set:			0.050	0.050	0.000	0.050	Pass

Class 60 Loading Sequence (UL 580)							
Duration (min)	Positive Pressure	Negative Pressure	Max Deflection Under Load (in.)				Result
			1	2	3	4	
5	0.0	32.3	0.300	0.350	0.300	0.250	Pass
5	27.7	32.3	0.400	0.400	0.300	0.350	Pass
60	27.7	16.2-55.4	0.400	0.400	0.350	0.400	Pass
5	0.0	40.4	0.350	0.350	0.250	0.350	Pass
5	34.6	40.4	0.400	0.400	0.350	0.350	Pass
Permanent Set:			0.100	0.100	0.100	0.100	Pass

Class 90 Loading Sequence (UL 580)							
Duration (min)	Positive Pressure	Negative Pressure	Max Deflection Under Load (in.)				Result
			1	2	3	4	
5	0.0	48.5	0.300	0.400	0.350	0.300	Pass
5	41.5	48.5	0.400	0.550	0.450	0.450	Pass
60	41.5	24.2-48.5	0.450	0.550	0.450	0.450	Pass
5	0.0	56.5	0.350	0.450	0.450	0.350	Pass
5	48.5	56.5	0.550	0.500	0.500	0.450	Pass
Permanent Set:			0.150	0.250	0.150	0.150	Pass

2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Specimen No. 1 (UL 1897 Load Schedule)

Ultimate Loading Sequence (UL 1897)						
Duration (min)	Combined Test Pressure (psf)	Max Deflection Under Load (in.)				Result
		1	2	3	4	
1	112	0.400	0.560	0.450	0.450	Pass
1	127	0.450	0.610	0.560	0.500	Pass
1	142	0.500	0.660	0.560	0.450	Pass
1	157	0.560	0.760	0.610	0.610	Pass
1	172	0.610	0.810	0.760	0.660	Pass
1	187	0.660	0.810	0.810	0.660	Pass
1	202	0.710	0.860	0.810	0.710	Pass
1	217	0.760	0.960	0.860	0.810	Pass
1	232	0.810	1.060	0.960	0.860	Pass
1	247	0.860	1.110	1.010	0.960	Pass
1	262	0.960	1.210	1.010	1.010	Pass
1	277	1.010	1.210	1.160	1.010	Pass
1	292	1.060	1.310	1.210	1.110	Pass
1	307	-	-	-	-	Pass
22s	322	-	-	-	-	Fail

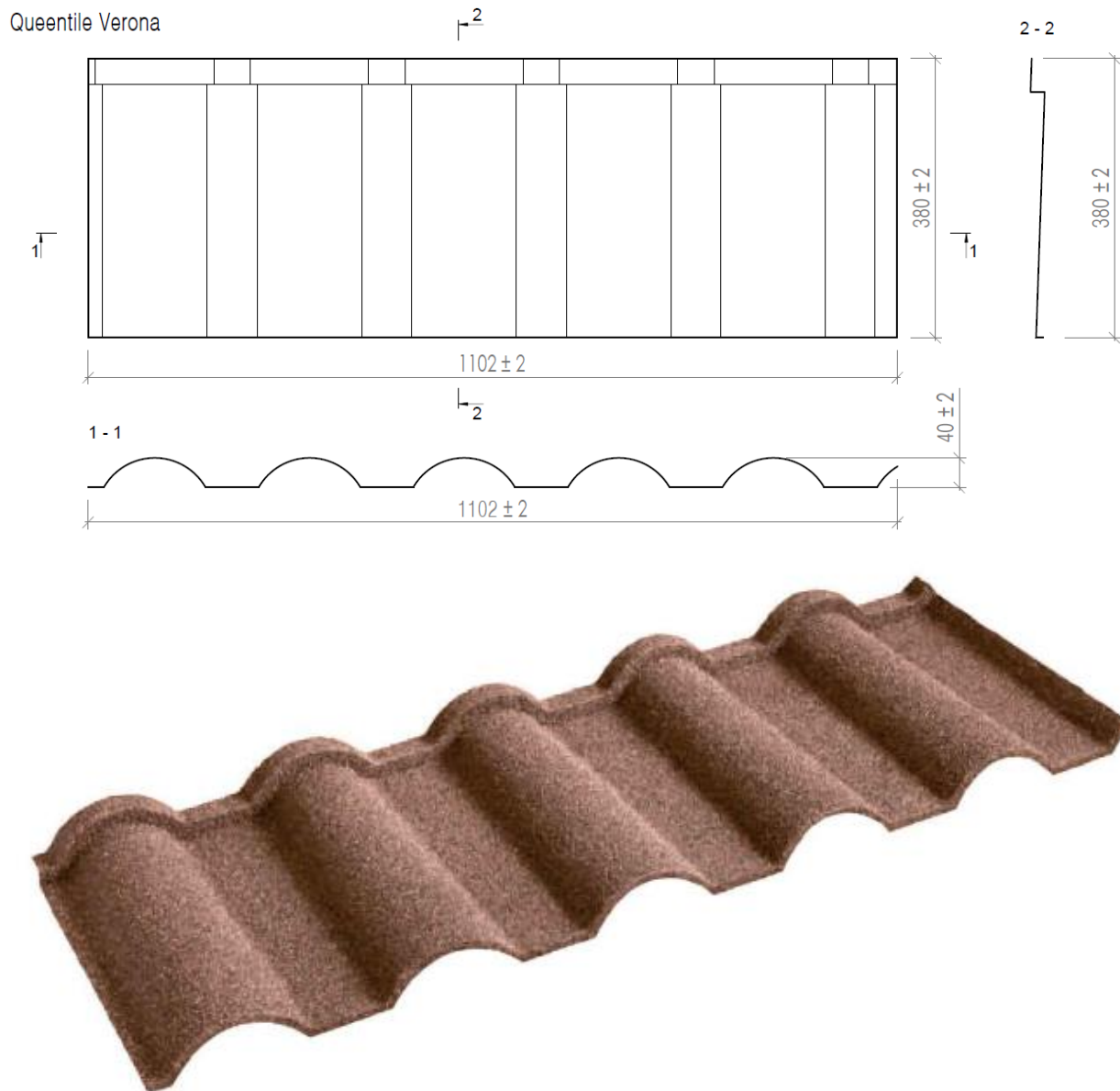
ASTM E 8 Tensile Properties

Specimen	Width	Thickness	Gage Length	Yield Strength	Tensile Strength	Elongation at Break
1	0.5	0.0184	2	49.8	60.9	38.0
2	0.5	0.0184	2	52.6	60.7	36.1
3	0.5	0.0184	2	54.4	62.2	31.3
4	0.5	0.0184	2	56.8	62.3	34.6
5	0.5	0.0184	2	50.0	55.0	33.8
Average				52.7	60.2	34.8
St.Dev.				49.8	60.9	38.0

2213T0008

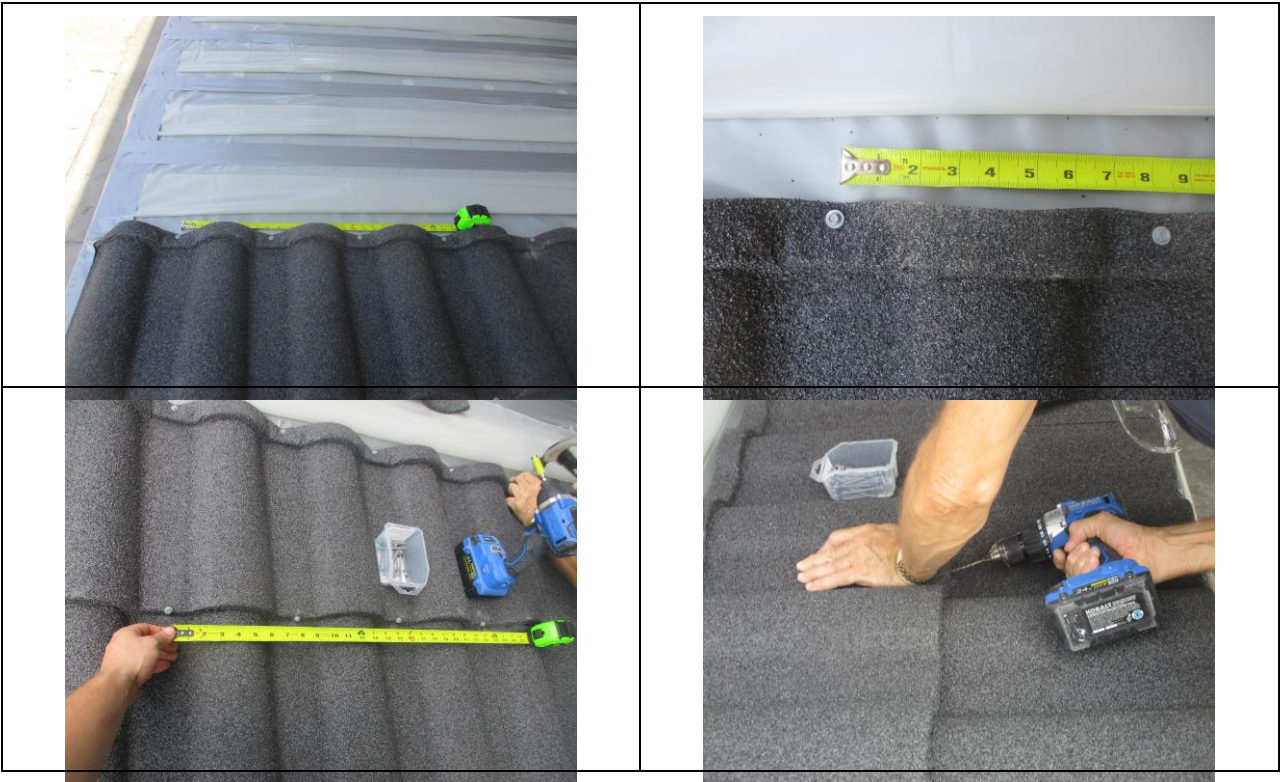
The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Appendix B: Materials/Drawings



2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.



Fastening for Specimen No. 1

2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.

Appendix C: Photograph(s)



Specimen No. 1 After Testing

END OF REPORT

2213T0008

The laboratory test results presented in this report are based on the material(s) supplied and tested. The results, and by extension any statements of conformity, opinions, or interpretations, apply the "simple acceptance" decision rule for measurement uncertainty accounting. This report is for the exclusive use of stated client. Only the client is authorized to permit copying or distribution of this report and then only in its entirety. PRI Construction Materials Technologies LLC assumes no responsibility nor makes a performance or warranty statement for this material or products and processes containing this material in connection with this report.