

PRI Construction Materials Technologies LLC

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

Laboratory Test Report

Report for:

Andrew Carpenter

Mainstream Engineering

200 Yellow Place Rockledge, FL 32955

Product Name:

QwikHurricane® Pad

Project No.:

MAIN-001-02-01

Date(s) Tested:

Sep. 12, 2018 - Mar. 21, 2019

Test Method(s):

ASTM G155 (with ASTM D638)

Results Summary:

Refer to Results table

Purpose:

Evaluate durability property for a plastic material, herein referred to as QwikHurricane Pad, in accordance with ASTM G155: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.

The name has changed to QwikPad, see addendum attached.

Test Methods:

Testing was conducted as requested by proponent. Test specimens were subjected to accelerated weathering described in ASTM G155-13: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials. Exposure parameters were in accordance with Cycle 1; exposure duration was 4,500h. Briefly, xenon arc lamp with Daylight filter was operating with irradiance setting of 0.35 W/m²-nm as measured at 340nm; cycle was 102min light exposure at 63±2.5°C Black Panel Temperature followed by 18min light and water spray (temperature not controlled). Test specimens were visually inspected for cracking or checking on the plastic surface.

Tensile Properties were assessed for unexposed (i.e. control) and exposed specimens. Tensile Properties were determined in accordance with ASTM D638-14: Standard Test Method for Tensile Properties of Plastics. Tensile Strength and Elongation at Break are reported.

Sampling:

The following materials were received by PRI.

Product

Source

<u>Date</u>

Sampling Mainstream

QwikHurricane Pad

Rockledge

Jun. 14, 2018

Engineering

Manufacture location for product tested has been verified as Rockledge, FL.

Conditioning:

All conditioning was completed in accordance with specification details.

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Results:

ASTM G155 (with ASTM D638)

Physical Properties	Test Method				Result	5			Requirement ¹
Accelerated Weathering, [Pass/Fail] specimens; 1in x 9in Condition ASTM G155, Cycle 1 Visual Inspection	ASTM G155 Cycle 1	н					7		
After 4,500h ASTM G155, Cycle 1		Pass					Pass	There shall be no cracking or checking on the plastic surface	
Tensile Strength, (psi) 5 specimens; Type IV x thickness Cond. 24h @ 73.4±3.6°F & 50±5%RH Test @ 73.4±3.6°F & 50±5%RH Rate = 2in/min	ASTM D638	1,	2	en ,	4	5	Avg.	St.Dev.	
As Received Behavior = Yield		2,788	2,781	2,694	2,714	2,741	2,744	41	Report
After 4,500h ASTM G155, Cycle 1 Behavior = Yield		2,764	2,812	2,849	2,827	2,794	2,809	33	Report
Change (%)					+2.4%				±10%
Elongation at Break, (%) 5 specimens; Type IV x thickness Cond. 24h @ 73.4±3.6°F & 50±5%RH Test @ 73.4±3.6°F & 50±5%RH Rate = 2in/min	ASTM D638	1	2	8	4	5	Avg.	St.Dev.	
As Received Behavior = Yield		131.6	118.9	115.9	111.6	116.4	119	8	Report
After 4,500h ASTM G155, Cycle 1 Behavior = Yield		107.9	106.4	115.3	117.6	105.8	111	6	Report
Change (%)		-6.7%					±10%		

Note(s): 1- indicates that Requirement listed is adopted from Miami-Dade Checklist #0445 (revised 9-1-12): Plastic and Foam Plastic

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Statement of Attestation:

The durability property of this material was evaluated in accordance with ASTM G155: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials with ASTM D638: Standard Test Method for Tensile Properties of Plastics. The laboratory test results presented in this report are representative of the material(s) tested.

Signed: Signed: Duc T. Nguyen

Managing Director Florida Registered Professional Engineer
P.E. Number: 65034

Date: 03/26/2019 Date: 3/27/2019

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Draft	03/25/2019	3	NA
Original	03/26/2019	3	NA

END OF REPORT

MAIN-001-02-01



PRI Construction Materials Technologies LLC

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Brad Grzybowski Managing Director

April 24, 2024

Nicholas Nonnemacher Mainstream Engineering 200 Yellow Place Rockledge, FL 32955

PRI-CMT provided third-party, independent testing and subsequently issued Laboratory Test Report(s). You have asked for a **Letter Addendum for PRI Report No. MAIN-001-02-01, issued 03/26/2019**, to recognize a change of Product Name. PRI completed ASTM G155 (with ASTM D638) testing for a plastic material, which at the time of testing and report issuance was identified as QwikHurricane® Pad.

This Letter Addendum identifies Product Name as QwikPad®. This recognition is based on the following:

1. Email request dated April 24, 2024 from Nicholas Nonnemacher with copy provided to Andrew Carpenter.

Brad Grzybówski
Managing Director

Date: 04/24/2019

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