

Meets the requirements of ASTM C 1278

Features

Strength: Engineered to provide high wind-uplift performance. Uniform composition providing enhanced bond strength of membrane systems with no risk of facer delamination.

Fire Performance: Provides excellent fire performance, and demonstrates exceptional surface burning characteristics. 5/8" thickness meets the requirements of Type X per ASTM C 1177.

Moisture and Mold Resistance: Integral water-resistant core scored a maximum "10" for mold resistance when tested per ASTM D 3273.



Component

B
Cover Board

Multi-Ply
Single Ply

GY
Gypsum

LT
Low Thermal

System Compatibility This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
	Compatible with all Multi-Ply systems							

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

Energy and the Environment

LEED®	Recycled Content	Pre-Consumer: 97% (SCS Certified)
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Peak Advantage® Guarantee Information

Systems	Guarantee Term*
When used in most 2-5 ply multi-ply or single ply systems	10, 15 or 20 years

* Contact JM Technical Services for specific systems or terms over 20 years.

Codes and Approvals



Installation/Application



Cold Applied



Urethane
Adhesive



Mechanically
Fastened

Refer to the Application Guides and Detail Drawings for instructions.

Packaging and Dimensions

Sizes	4' x 4' (1.22 m x 1.22 m) 4' x 8' (1.22 m x 2.44 m)			
Thickness (nom)	1/4" (6.35 mm)	3/8" (9.5 mm)	1/2" (12.7 mm)	5/8" (15.9 mm)
Weight/Board 4'x8' boards	50 lb (22.68 kg)	63 lb (28.58 kg)	88 lb (39.92 kg)	102 lb (46.27 kg)
Coverage/Pallet 4'x8' boards	1,600 ft² (148.7 m²)	1,280 ft² (118.9 m²)	960 ft² (89.2 m²)	768 ft² (71.4 m²)
Boards/Pallet 4'x8' boards	50	40	30	24
Pallet Weight 4'x8' boards	2,575 lb (1,168.0 kg)	2,575 lb (1,168.0 kg)	2,725 lb (1,236.0 kg)	2,525 lb (1,145.3 kg)
Pallets per Truck*	17	17	18	18
Producing Locations	Gypsum, OH			

* Assumes 48' flatbed truck.

(1) LAYER OF 5/8" SECUROCK - THERMAL BARRIER

(1) LAYER OF 5/8" SECUROCK - COVERBOARD

Refer to the Material Safety Data Sheet and product label prior to using this product. The Material Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

SECUROCK® is registered trademark of United States Gypsum Company. SECUROCK® is manufactured by United States Gypsum Company and is marketed by Johns Manville as JM® SECUROCK®.

Meets the requirements of ASTM C 1278

Typical Physical Properties

Test		ASTM	JM SECUROCK Gypsum-Fiber Roof Board			
			¼" (6.35 mm)	⅜" (9.5 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Strength	Compressive Strength, psi (kPa) (nom)	C 1278	1,800 (12,410.6)			
	Flexural Strength, parallel (min)	C 473	40 lb	70 lb	110 lb	161 lb
	Bending Radius, ft (m)	NA	25 (7.62)	25 (7.62)	25 (7.62)	30 (9.14)
Moisture	Moisture Vapor Permeance, perms (ng/(Pa•s•m²))	E 96	30 (1,716)	26 (1,487.2)	26 (1,487.2)	24 (1,372.8)
	Water Absorption, % by weight (max)	C 473	10			
	Surface Water Absorption, g (nom)	C 473	1.6			
	Mold Resistance	D 3273	10			
Installation	Flute Spannability, in (cm)	E 661	2 5/8 (6.67)	5" (12.7)	8" (20.32)	10" (25.4)
	Weight, lb/ft² (kg/m²) (nom)	NA	1.57 (7.6)	1.96 (9.49)	2.76 (13.36)	3.20 (15.49)
	Linear variation with change in moisture, in/in • %RH	D 1037	8 x 10 ⁻⁶			
	Coefficient of Thermal Expansion, in/in • °F	E 831	8 x 10 ⁻⁶			

Thermal Performance

Thickness		Nominal R-Value (Resistance)	
in.	mm	(hr•ft²•°F)/BTU	m²•°C/W
¼	6.35	0.2	0.04
⅜	9.5	0.3	0.05
½	12.7	0.5	0.09
⅝	15.9	0.6	0.11
Test		ASTM	JM SECUROCK Gypsum-Fiber Board
Flame Spread		E 84	5
Smoke Developed		E 84	0

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB	
PROJECT NAME	
8274 BIG BEND BLVD	
ADDRESS	
NUMBER	
WEBSTER UNIVERSITY	
OWNER	
CANNON DESIGN	
ARCHITECT / ENGINEER	
DEVIN D GATES	
SUBMITTED BY	
075323-001	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
	075323
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
	CRITICAL

ITEM BEING SUBMITTED (check only one)

- | | | |
|---|--|--|
| ☐ Shop Drawings | ☐ Certification / Qualifications | ☐ Coordination Drawing |
| ☐ Samples (____ copies) | ☐ Record Documents | ☐ Calculations |
| ☐ LEED Submittal | ☐ Product Data | ☐ Schedules |
| ☐ Other _____ | ☐ O&M Manuals | |

ITEM BEING SUBMITTED FOR (check only one)

- ☐ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

Email correspondence with KWA provided clarifications for requested information and warranty letter attached.

CONTRACTOR / CM CERTIFICATION (SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:

Devin D. Gates

DEVIN D GATES	10/11/16
REVIEWED BY	DATE

To be completed by Reviewer

07 5323-001 REV002
CANNON DESIGN SUBMITTAL NUMBER
10/11/16
RECEIVED DATE

- ☐ A. No Exceptions Taken
No further review of submittal is required.
- ☒ B. Make Corrections Noted
Incorporate corrections in work; resubmission is not required.
- ☐ C. Revise and Resubmit
Revise as noted, and resubmit for review.
- ☐ D. Rejected
Submittal is not in compliance with Contract Documents; provide new submittal.
- ☐ E. For Record / Information Only
Submittal was reviewed for Record / Information purposes only.
- ☐ F. Not Required for Review
Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be af
This review is null and void if submittal deviates from contra
and does not indicate or note deviations.

A/E COMMENTS

☐ See attached sheet(s) for additional comments

Final warranty must meet specification section 1.10. 2. requirements: wind speed coverage of that indicated on structural drawings (90 mph minimum), hail coverage for up to 2 inch diameter, and accidental puncture coverage of 16 man hours per year of warranty.
see comments below

Kathy Williams	10/11/16
REVIEWED BY	DATE

Gates, Devin

From: Scott Klingsick <scott@kwastl.com>
Sent: Friday, October 07, 2016 7:00 AM
To: Gates, Devin
Cc: kpatel@cannondesign.com
Subject: RE: Clarifications on returned EPDM shop drawings

Follow Up Flag: Follow up
Flag Status: Flagged

Yes this will be acceptable. We need the rest of the information revised and it to be resubmitted so we can approve submittal 075323-001. Thanks

Scott Klingsick, LEED Green Associate

Project Manager
9721 Litzsinger Rd.
St. Louis, MO 63124
(p) 314.962.2560 (f) 314.962.4057
scott@kwastl.com



KWA Architects

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From: Gates, Devin [mailto:ddgates@paric.com]
Sent: Thursday, October 06, 2016 4:59 PM
To: Scott Klingsick
Cc: kpatel@cannondesign.com
Subject: RE: Clarifications on returned EPDM shop drawings

Kelvin/Scott,

Were you able to take a look at this and does this resolve the impact resistance needs? I can resubmit formally as needed but with the back and forth I wanted to ensure we are all on the same page.

Thanks,

DEVIN GATES
SENIOR PROJECT ENGINEER

Cell: 314-348-8828
Main: 636-561-9500

- - - - -
77 Westport Plaza, Suite 250
St. Louis, MO 63146



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From: Aaron Hammerstone [<mailto:aaron.hammerstone@kirberg.com>]
Sent: Tuesday, October 04, 2016 7:10 AM
To: Gates, Devin; scott@kwastl.com
Cc: kpatel@cannondesign.com
Subject: FW: Clarifications on returned EPDM shop drawings

All,

Please see the two attachments, as well as the information in the below email in regards to the ASTM testing on JM EPDM membrane.

Thanks

Aaron Hammerstone | Project Manager

314.333.4710 Direct | aaron.hammerstone@kirberg.com

314.792.3777 Mobile

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From: Mark Tucker [<mailto:Mark@D7Reps.com>]
Sent: Monday, October 03, 2016 4:12 PM
To: Aaron Hammerstone

Cc: James Nunns; zac.stallings@jm.com; Jim Schriefer
Subject: RE: Clarifications on returned EPDM shop drawings

Aaron,

This JM EPDM 90NR data sheet shows we meet ASTM 4637 for EPDM. It's the same testing All EPDM is to meet, requiring minimum test results for numerous categories. There are three major manufacturers of EPDM: Johns Manville, Firestone, and Carlisle. NOTE: of the three, the latter two, have private label products, targeting a different market segment of contractors. The 3 major manufacturers are also, the only three members of the EPDM Roofing Association (ERA): <http://www.epdmroofs.org/about-era/members> . The goal of this organization is collectively establish current and accurate data documenting of EPDM.
<http://www.epdmroofs.org/about-era/who-we-are> .

Inside of **ASTM D 4637**, are individual tests for certain criteria. As a whole, make up ASTM D 4637.
Of which include the following:

ASTM D 5635 – Dynamic Puncture Resistance, 5J, Type 1 – Passes

ASTM D 5602 Static Puncture Resistance, 44.1 lbf, Type 1 – Passes

There are only two hail tests for the Single Ply Membranes (according to Jim D. Koontz- Crenshaw and Koontz).
Of which, the one most recognized, is FM's test, for approved Roof Nav assemblies per FM 4470.
For this project, we supplied the following two FM Nav #'s:

Assembly Properties

Assembly #:	392147-0-0	Slope:	1.0000
Roof System:	Single-Ply System	Wind Uplift*:	90
Application:	New Roof	Internal Fire:	1
Cover		Exterior Fire:	A
Securement:	Adhered		
Deck Type:	Steel	Hail:	SH
	For Use With Non-Combustible Walls:		No

AND

Assembly #:	374588-0-0	Slope:	1.0000
Roof System:	Single-Ply System	Wind Uplift*:	270
Application:	New Roof	Internal Fire:	NC
Cover		Exterior Fire:	A
Securement:	Adhered		
Deck Type:	Structural Concrete	Hail:	SH
	For Use With Non-Combustible Walls:		No

The roofing specification for this project, states in Part 1, paragraph 1.5, line 3, That the manufacturer must meet "Tested and listed by FM for class specified in "Performance Requirements" Article in Part 2 of this Section". In Part 2, **we met** Part 2, paragraph 2.2, A1. As noted, A2 criteria is for Modified Roofing. As such, A2 should be eliminated from requirements of the submittal, as **Part 2, 2.2, D.2** requires a Hail Resistance: SH. Of which, is met with both of the approved JOHNS MANVILLE Roof Nav Assembly numbers provided.

As for UL 2818, again is not a test used in the Single Ply industry. It is used primarily in the residential steep slope roofing market (shingles, tile, slate, metal roofs). The test requirement for this, is to test roof slopes at 6" in 12" or greater. This test was realized in 1996, by Major Property Insurers, the Institute of

Business and Home Safety (IBHS), and with United Laboratory. They developed ASMT 2218, to set a national standard, for roof impact resistance, for the residential steep slope market.

-
- A scope/ description, for the use of ASTM 2218, from the UL ASTM 2218 web page: <http://www.comm-2000.com/ProductDetail.aspx?UniqueKey=20884> click on "scope".
- 1 Scope

1.1 This test method provides impact resistance data for the evaluation of prepared roof covering materials. For purposes of this Standard prepared roof covering materials are considered to be small units, sheets or panels designed for installation with multiple layers of such materials installed in **overlapping rows normally on inclines exceeding 25 percent**.

We did a quick research of other manufacturers web sites, and on hand manufacturers data. Not one in the Single Ply manufacturing business, list or utilize the UL 2218 test. In fact, all manufacturers use the same testing, as it relates to the ASTM (see above for Static and Dynamic Puncturing) for that membrane. In this project instance, is EPDM (ASTM D 4637).

It appears to us, that there seems to be a mix of an EPDM specification, and a Modified/ Residential specification.

If this information does not satisfy the needs of the BID Documents, please let me know.

Mark

From: Aaron Hammerstone [<mailto:aaron.hammerstone@kirberg.com>]
Sent: Friday, September 30, 2016 2:25 PM
To: Mark Tucker <Mark@D7Reps.com>
Subject: Fwd: Clarifications on returned EPDM shop drawings

Thanks,

Aaron Hammerstone

Project Manager
Kirberg Company
(314)792-3777

Begin forwarded message:

From: Scott Klingsick <scott@kwastl.com>
Date: September 30, 2016 at 2:24:29 PM CDT
To: Aaron Hammerstone <aaron.hammerstone@kirberg.com>, "Gates, Devin" <ddgates@paric.com>
Cc: "Szachnieski, Jason" <JRSzachnieski@paric.com>, Kathy Williams <kathy@kwastl.com>
Subject: RE: Clarifications on returned EPDM shop drawings

Aaron,

Sorry for the confusion. The wrong ASTM number listed in the specification. It should have been ASTM D 4637-08 "Specification for EPDM Sheet Used in Single-ply Roof Membrane" and/or UL 2218 Standard for Impact Resistance of Prepared Roof Covering Materials. We need testing and product data to show compliance with the requirements impact resistance for the hail requirements on this project.

Scott Klingsick, LEED Green Associate

Project Manager
9721 Litzsinger Rd.
St. Louis, MO 63124
(p) 314.962.2560 (f) 314.962.4057
scott@kwastl.com



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From: Aaron Hammerstone [<mailto:aaron.hammerstone@kirberg.com>]

Sent: Friday, September 30, 2016 12:13 PM

To: Gates, Devin; Scott Klingsick

Cc: Szachnieski, Jason

Subject: Re: Clarifications on returned EPDM shop drawings

ASTM D 3746 is for bituminous roofing. ASTM D 4272 is for plastic films.

This is an EPDM roof system. I think I'm missing something here.

Thanks,

Aaron Hammerstone

Project Manager
Kirberg Company
(314)792-3777

On Sep 30, 2016, at 11:26 AM, Gates, Devin <ddgates@paric.com> wrote:

Aaron,

See convo below regarding the shop drawing markups.

DEVIN GATES
SENIOR PROJECT ENGINEER

Direct: [636-561-9592](tel:636-561-9592)

Main: [636-561-9500](tel:636-561-9500)

Cell: [314-348-8828](tel:314-348-8828)

[77 Westport Plaza, Suite 250](#)
[St. Louis, MO 63146](#)

Sent from my iPhone

Begin forwarded message:

From: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>
Date: September 30, 2016 at 11:21:32 AM CDT
To: "Gates, Devin" <ddgates@paric.com>, "Szachnieski, Jason" <JRSzachnieski@paric.com>
Cc: "Grossman, Lynn" <lgrossman@CANNONDESIGN.COM>
Subject: FW: Clarifications on returned EPDM shop drawings

Devin,

See clarification from KWA below.

Thanks,

Kelvin Patel, CDT, LEED AP BD+C
Associate



T 314.425.8756

From: Scott Klingsick [<mailto:scott@kwastl.com>]
Sent: Friday, September 30, 2016 11:13 AM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>; Kathy Williams <kathy@kwastl.com>
Cc: Grossman, Lynn <lgrossman@CANNONDESIGN.COM>
Subject: RE: Clarifications on returned EPDM shop drawings

Kelvin,

It is fine to show the building taller than 60' information.
We do need submittal for the 2.2 A.2. Impact
Resistance: Test reports and product data showing
compliance with ASTM D 3746 or ASTM D 4272. Thanks

Scott Klingsick, LEED Green Associate
Project Manager
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scott@kwastl.com



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From: Patel, Kelvin [<mailto:kpatel@CANNONDESIGN.COM>]
Sent: Thursday, September 29, 2016 1:14 PM
To: Scott Klingsick; Kathy Williams
Cc: Grossman, Lynn
Subject: FW: Clarifications on returned EPDM shop drawings

Kathy / Scott,

Please review Paric's questions and provide comments.

Thanks,

Kelvin Patel, CDT, LEED AP BD+C

Associate



T 314.425.8756

From: Gates, Devin [<mailto:ddgates@paric.com>]
Sent: Thursday, September 29, 2016 1:04 PM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>
Cc: Szachnieski, Jason <JRSzachnieski@paric.com>
Subject: Clarifications on returned EPDM shop drawings

Kelvin,

I have a couple of clarifications on two items from the attached rejected submittal.

1. On page 3 the perimeter and corner dimensions are crossed out for buildings taller than 60' however this building is higher than 60' in locations, is this note correct?
2. Can you please be more specific on what is being requested in the note "submit information for A2"? Johns Mansville did not feel like any of this section applies to the EPDM roof.

Thank you,

DEVIN GATES
SENIOR PROJECT ENGINEER

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Main: 636-561-9500

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St. Louis, MO 63146

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