

Standard RoofGrip® Drill Point Fastener

PRODUCT DATA SPECIFICATIONS

PRODUCT DESCRIPTION

The OMG Standard RoofGrip Drill Point Fastener (#12) is designed to secure insulation to 18 ga. – 24 ga. (1.25 – 0.65-mm) steel and wood. It is available in lengths from 1½-in. to 8-in. (40- to 200-mm). The OMG Standard RoofGrip Drill Point Fastener is Factory Mutual and Miami-Dade County approved.

FEATURES & BENEFITS

- Heavier shank and thread diameters than most “standard” roofing fasteners.
- Deep buttress thread for high pullout resistance.
- Extra sharp drill point for quick installation in new or reroof applications.
- Available with #3 Phillips truss head or 1/4-in Hex Head (6-mm).

COATING

OMG CR-10 corrosion resistant coating exhibits less than 15% red rust after 30 Kesternich cycles. CR-10 coating exceeds FM Approval Standard 4470.

APPLICATION

For steel decks, ¾-in. (20-mm) penetration is the minimum allowable. Factory Mutual requires that fasteners penetrate the top flute.

For OSB and plywood*, ¾-in. (20-mm) penetration through the underside of the board is the minimum allowable. For wood deck (woodbeams, wood plank, tongue & groove), 1-in. (25-mm) penetration is the minimum allowable.

Using a screw gun, drive the fastener until a slight depression is seen in the insulation and the plate. On rigid cover boards, care must be taken not to strip the deck.

The strength of different roof decks can vary widely and can be adversely affected by moisture and other conditions. Therefore, it is recommended that a fastener pull test be conducted to help evaluate deck condition and fastener suitability. Call OMG to schedule testing.

Note: Care must be taken not to overdrive the fastener. Fastener must be tight enough so that the plate doesn’t turn. For best results, use a variable speed 0–2500 RPM screw gun.

To speed installation, this fastener can be used with the AccuTrac® System and is also available pre-assembled. See AccuTrac or ASAP®.

PLATES & ACCESSORIES

Use appropriate steel or plastic plates, depending upon the application. **See Plates section.**

APPROVALS



Factory Mutual listings refer to this product as #12 RoofGrip, #12 Standard RoofGrip, OMG #12 Standard and #12 Standard Hex Head.

*FM does not approve OSB or plywood deck types

KEY:

S Steel	SC Structural Concrete
W Wood	LC Lightweight Concrete
G Gypsum	LWIC Lightweight Insulating Concrete
P Purlins	CWF Cementitious Wood Fiber



USE
WITH
S
W
DECK
TYPES

PHYSICAL DATA†

The data below is constant for each OMG Standard RoofGrip Drill Point Fastener.

HEAD	THREAD
#3 Phillips Truss Head**	.220-in (5.58-mm) Diameter
	SHANK
.435-in (11.04mm) Diameter or 1/4-in (6-mm) Hex Head	.160-in (4.06-mm) Diameter
	COATING
	CR-10

**#3 Phillips bit or HexHead bit included in each carton.

ORDERING INFORMATION

CATALOG NO.	LENGTH INCH (MM)	THREAD INCH (MM)	PKG	WEIGHT LBS (KG)
PHILLIPS HEAD				
RGDP158B	1½ (40)	Full	1000	12 (5.45)
RGDP214B	2¼ (55)	Full	1000	16 (7.26)
RGDP003B	3 (75)	3 (76)	1000	21 (9.53)
RGDP004B	4 (100)	3 (76)	1000	26 (11.80)
RGDP005B	5 (125)	3 (76)	1000	35 (15.89)
RGDP006B	6 (150)	4 (102)	1000	42 (19.07)
RGDP007B	7 (175)	4 (102)	1000	48 (21.79)
RGDP008B	8 (200)	4 (102)	1000	50 (22.70)
HEX HEAD				
HHDP158B	1½ (40)	Full	1000	12 (5.45)
HHDP214B	2¼ (55)	Full	1000	16 (7.26)
HHDP003B	3 (75)	3 (76)	1000	21 (9.52)
HHDP004B	4 (100)	3 (76)	1000	26 (11.80)
HHDP005B	5 (125)	3 (76)	1000	35 (15.89)
HHDP006B	6 (150)	4 (102)	1000	42 (19.07)
HHDP007B	7 (175)	4 (102)	1000	48 (21.79)
HHDP008B	8 (200)	4 (102)	1000	50 (22.70)



Standard RoofGrip® Drill Point Fastener

PRODUCT DATA SPECIFICATIONS

SPECIFICATION

The fastener will be an OMG Standard RoofGrip Drill Point Fastener (#12) with a thread diameter of .220-in. (5.58mm). The fastener must have 12.5 buttress threads per inch. Also, the fastener must be heat-treated per specification OMG-1. The OMG Standard RoofGrip Drill Point Fastener will be used with a Factory Mutual approved, OMG pressure plate or pressure bar. The fastener must be Factory Mutual approved.

COATING REQUIREMENT

The fastener will be coated with the OMG CR-10 corrosion resistant coating. When subjected to 30 Kesternich cycles (DIN 50018), the fastener must show less than 15% red rust and surpass Factory Mutual Approval Standard 4470.

APPLICATION

The OMG Standard RoofGrip Drill Point Fastener must penetrate steel decks a minimum of ¾-in. (20mm). Factory Mutual requires that fasteners penetrate the top flute.

For OSB and plywood*, ¾-in. (20mm) penetration through the underside of the board is the minimum allowable. For wood deck (wood beams, wood plank, tongue & groove), 1-in. (25mm) penetration is the minimum allowable.

Using a screw gun, drive the fastener until a slight depression is seen in the insulation and the plate. On rigid cover boards, care must be taken not to strip the deck.

The strength of different roof decks can vary widely and can be adversely affected by moisture and other conditions. Therefore, it is recommended that a fastener pull test be conducted to help evaluate deck condition and fastener suitability. Call OMG to schedule testing.

Note: Care must be taken not to overdrive the fastener. Fastener must be tight enough so that the plate doesn't turn. For best results, use a variable speed 0–2500 RPM screw gun.

*FM does not approve OSB or plywood deck types.

STANDARD ROOFGrip DRILL POINT FASTENER LENGTH SELECTION PROCEDURE

1. If applicable, determine the thickness of the existing roofing material.
2. Add thickness of new insulation.
3. **For steel:** Add ¾ to 1-inch (20 to 25mm) fastener penetration depending on deck type (see Application Section for details).
4. If odd size requirement, always size up in length, not down. See example:

	Example:	Your Project:
Existing Roofing	1¾" (45mm)	
Cover Board	½" (13mm)	
Min. Penetration	¾" (20mm)	¾" (20mm)
Total Fastening	3" (75mm)	
Correct Length	3" (75mm)	

The proper #12 Standard RoofGrip Drill Point Fastener for this steel deck example is 3 inches. (75mm)



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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.

DRAWING / DETAIL REFERENCE

075323

SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

☐

CRITICAL

ITEM BEING SUBMITTED (check only one)

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

REVIEWED BY

10/11/16

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

REVIEWED BY

10/11/16

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

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

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