



RubberGard™ EPDM Roof Systems
Tested Assembly Guide
Canadian Standards Association

May 2024

NOTE: The contents of this guide are considered accurate at time of posting. All information contained within should be validated for accuracy as it relates to specific project conditions or requirement. Specific codes, uplifts or other factors may result in changes to the information contained within this document. Validate all specific conditions with a Holcim Regional Technical Coordinator prior to its use.

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Canadian Standards Association

Allowable Products

Only equivalent products included into the roofing system's report are admissible.

Optional Components

Components of the roofing system designated as optional may be included or excluded from the roofing system which will not change the published dynamic uplift resistance (DUR).

Safety Factor

As required by the CSA A123.21 Standard, the published dynamic uplift resistance (DUR) are reduced by a safety factor of 1.5 (SF of 1.5).

Admissible Wind Uplift Load Calculation

An online calculator is available at www.sigders.ca.

The user will have to provide the following information:

- Building Location
- Building Geometry
- Building Exposure
- Building Openings
- Building Importance Factor

The calculator will display the allowable design load of the roof's field surface, edges and corners as well as the dimensions of the edge and corner zones.

Technical Advisories

Assessment reports must be read in conjunction with technical advisories issues by Exp Services Inc.

Values

A For the listing in this section the metric values are the standard and values in parentheses are for information only.

Notice

Exp Services Inc. reserve their right to withdraw, without prior notice, the test report performed as per CSA A123.21 Standard.

Decking

Galvanized construction steel or coated with aluminum/zinc alloy or PVC in accordance with ASTM A653, ASTM A792, ASTM A1008 or CSSBI 10M Standards. Supplier is listed as Generic. The deck's fastening to the supporting structure must be strong enough to resist the wind uplift loads (adjusted as per NBC requirements). Contact a Holcim Technical Representative for additional deck availability. Alternate deck types will require the deck to have a pullout resistance equal to or higher than the fastening uplift resistance specified in the given listing.

- Deck used for testing: 22 gauge, Yield Strength (Y) 33 ksi, Tensile Strength (T) 45 ksi – Type B

RubberGard EPDM Adhered Membrane

RubberGard EPDM Membrane - Dynamic Uplift Resistance (DUR) as per CSA A123.21

Deck Type & Uplift with SF of 1.5	Vapor Barrier/ Thermal Barrier	Insulation and Attachment	Cover Board and Attachment	Membrane and Attachment
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>2.1 kPa (-45 psf)</p> <p>File Number: FBPS-211230-02</p>	<p>Vapor Barrier: V-Force Basegard SA Polyethylene Kraft paper</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, DensDeck DensDeck Prime Securock</i></p> <p><i>Attachment: Loose Laid</i></p>	<p>Insulation (Top): 38 mm – 203 mm (1.5" – 8") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment (Top): Loose Laid Common Fastened</p> <p>Insulation (Bottom): 38 mm – 203 mm (1.5" – 8") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment (Bottom): Loose Laid Common Fastened</p>	<p>Cover Board: 6 mm – 15.9 mm (¼" - ⅝") thick, ISOGARD HD ISOGARD HG Securock</p> <p>Attachment: 10 HD Fasteners per 4' x 8' board</p>	<p>Membrane: RubberGard EPDM Platinum EPDM EcoWhite membranes RubberGard MAX EPDM EPDM PT membranes</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T)</p>
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>3.2 kPa (-67 psf)</p> <p>File Number: FBPS-211230-08</p>	<p>Vapor Barrier: V-Force Basegard SA Polyethylene Kraft paper</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, DensDeck DensDeck Prime Securock</i></p> <p><i>Attachment: Loose Laid</i></p>	<p>Insulation (Top): 25 mm – 203 mm (1" – 8") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment (Top): 12 HD Fasteners per 4' x 8' board</p> <p>Insulation (Bottom): 38 mm – 203 mm (1.5" – 8") thick, 4' x 4' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment (Bottom): Loose Laid Common Fastened</p>	<p>Cover Board: 3 mm – 15.9 mm (⅛" - ⅝") thick, 4' x 4' boards ISOGARD HD ISOGARD HG Securock</p> <p>Attachment: 6" o.c. beads Twin Pack Adhesive</p>	<p>Membrane: RubberGard EPDM Platinum EPDM EcoWhite membranes RubberGard MAX EPDM EPDM PT membranes</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T)</p>
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>3.19 kPa (66.7 psf)</p> <p>Project Number: FBP-393-02-01 Assembly No. 1</p>	<p>Vapor Barrier: V-Force</p> <p>Thermal Barrier: ½" thick DensDeck Prime</p> <p>Attachment: 16 HD Fasteners/Plates Per 4' x 8' board</p>	<p>Insulation: Min. 2" thick, 4' x 4' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack ISO Stick ISO Spray R or 152.4 mm (6") o.c. beads, 25.4 mm (1") beads, Twin Jet</p>	<p>Cover Board: Min. 6 mm (¼") thick 4' x 4' boards DensDeck Prime Securock</p> <p>Attachment: 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack ISO Stick ISO Spray R or 152.4 mm (6") o.c. beads, 25.4 mm (1") beads, Twin Jet</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard Platinum EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T) Single-Ply LVOC BA Single-Ply LVOC BA 1168 Water Based BA P RubberGard Solvent Free BA Self Adhered</p>

RubberGard EPDM Adhered Membrane (Continued)

<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>3.19 kPa (66.7 psf)</p> <p>Project Number: FBP-393-02-01 Assembly No. 2</p>	<p>Vapor Barrier: V-Force</p> <p>Thermal Barrier: ½" thick DensDeck Prime</p> <p>Attachment: 16 HD Fasteners/Plates Per 4' x 8' board</p>	<p>Insulation: Min. 2" thick, 4' x 4' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack ISO Stick ISO Spray R or 152.4 mm (6") o.c. beads, 25.4 mm (1") beads, Twin Jet</p>	<p>N/A</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard Platinum EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T) Single-Ply LVOC BA Single-Ply LVOC BA 1168 Water Based BA P RubberGard Solvent Free BA Self Adhered</p>
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>2.4 kPa (50 psf)</p> <p>Project Number: FBP-393-02-01 Assembly No. 3</p>	<p>Vapor Barrier: V-Force</p>	<p>Insulation: Min. 2" thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: Loose Laid Common Fastened</p>	<p>Cover Board: Min. 6 mm (¼") thick DensDeck Prime</p> <p>Attachment: 8 HD Fasteners per 4' x 8' board</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard Platinum EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T) Single-Ply LVOC BA Single-Ply LVOC BA 1168 Water Based BA P RubberGard Solvent Free BA Self Adhered</p>
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>2.4 kPa (50 psf)</p> <p>Project Number: FBP-393-02-01 Assembly No. 4</p>	<p>Vapor Barrier: V-Force</p>	<p><i>Insulation (Top) (Optional):</i> Min. 2" thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p><i>Attachment (Top) (Optional):</i> 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack ISO Stick ISO Spray R or 152.4 mm (6") o.c. beads, 25.4 mm (1") beads, Twin Jet</p> <p>Insulation (Bottom): Min. 2" thick, 4' x 8' boards ISOGARD GL/ISOGARD CG ISOGARD HD Comp.</p> <p>Attachment (Bottom): 8 HD Fasteners per 4' x 8' board</p>	<p><i>Cover Board (Optional):</i> Min. 6 mm (¼") thick, 4' x 4' boards DensDeck Prime Securock</p> <p>Attachment: 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack ISO Stick ISO Spray R or 152.4 mm (6") o.c. beads, 25.4 mm (1") beads, Twin Jet</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard Platinum EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T) Single-Ply LVOC BA Single-Ply LVOC BA 1168 Water Based BA P RubberGard Solvent Free BA Self Adhered</p>

RubberGard EPDM Adhered Membrane (Continued)

<p>Steel 22 ga Y: 33 ksi</p> <p>3.6 kPa (-75 psf)</p> <p>Project No.: 348T0017 Assembly No. 2</p>	<p>Air Barrier: 6 mil Polyethylene</p>	<p>Insulation: Min. 1.5" thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: Loose Laid</p>	<p>Cover Board: 12.7 mm (½") thick ISOGard HD</p> <p>Attachment: 18 AP Fasteners per 4' x 8' board</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage Single-Ply LVOC BA Water Based BA P Self Adhered</p>
<p>Steel 22 ga Y: 33 ksi</p> <p>3.2 kPa (-67 psf)</p> <p>Project No.: 348T0017 Assembly No. 3</p>	<p>Air Barrier: 6 mil Polyethylene</p>	<p>Insulation: Min. 2.5" (63.5 mm) thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: 16 AP Fasteners per 4' x 8' board</p>	<p>Not Applicable</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM RubberGard EPDM SA Full Force EPDM SA</p> <p>Attachment: Full Coverage Single-Ply LVOC BA, Single-Ply LVOC BA 1168, BA-2004T, Water Based BA P Self Adhered</p>

RubberGard EPDM Adhered Membrane – Adhered Insulation/Cover Board

RubberGard EPDM Membrane - Dynamic Uplift Resistance (DUR) as per CSA A123.21

Deck Type & Uplift with SF of 1.5	Vapor Barrier/ Thermal Barrier	Insulation and Attachment	Cover Board and Attachment	Membrane and Attachment
<p>Steel 22 ga Y: 33 ksi</p> <p>3.6 kPa (-75 psf)</p> <p>Project No.: FBP-415-02-01 Assembly No. 1</p>	<p>Vapor Barrier: V-Force</p> <p>VB Attachment: Self-Adhered</p>	<p>Insulation (top): 38.1 mm (1.5") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (top): 304.8 mm (12") o.c. beads, 19.05 mm (¾") beads, Twin Pack Adhesive; I.S.O. Stick Adhesive; Twin Jet Adhesive -or- 152.4 mm (6") o.c. beads, I.S.O. Spray R Adhesive</p> <p>Insulation (bottom): 38.1 mm (1.5") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (bottom): 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack Adhesive; I.S.O. Stick Adhesive; I.S.O. Spray R Adhesive; Twin Jet Adhesive</p>	<p>Cover Board: 12.7 mm (½") thick ISOGard HD</p> <p>Attachment: 305 mm (12") o.c. beads, 19.0 5mm (¾") beads, Twin Pack Adhesive; I.S.O. Stick Adhesive; Twin Jet Adhesive -or- 152.4 mm (6") o.c. beads, I.S.O. Spray R Adhesive</p>	<p>Membrane: RubberGard EPDM SA Full Force EPDM SA -or- RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM</p> <p>Attachment: Self Adhered -or- Fully Coverage UltraPly Bonding Adhesive Single-Ply LVOC Single-Ply LVOC 1168</p>

RubberGard EPDM Adhered Membrane – Adhered Insulation/Cover Board (Continued)

<p>Steel 22 ga Y: 33 ksi</p> <p>3.8 kPa (-80 psf)</p> <p>Project No.: 348T0017 Assembly No. 1</p>	<p>Vapor Barrier: V-Force</p> <p>VB Attachment: Self-Adhered</p>	<p>Insulation (top): 38.1 mm (1.5") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (top): 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack, I.S.O. Stick, Twin Jet, I.S.O. Spray R</p> <p>Insulation (bottom): 38.1 mm (1.5") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (bottom): 152.4 mm (6") o.c. beads, 19.05 mm (¾") beads, Twin Pack, I.S.O. Stick, I.S.O. Spray R, Twin Jet</p>	<p>Not Applicable</p>	<p>Membrane: RubberGard EPDM SA Full Force EPDM SA -or- RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM Fire-Retardant RubberGard EPDM</p> <p>Attachment: Self Adhered -or- Fully Coverage UltraPly Bonding Adhesive Single-Ply LVOC Single-Ply LVOC 1168 BA-2004T Water Based Bonding Adhesive P</p>
<p>Steel 22 ga Y: 33 ksi</p> <p>3.0 kPa (-62 psf)</p> <p>File No.: FBPS-225611-03 System A</p>	<p>Vapor Barrier: V-Force</p> <p>VB Attachment: Self-Adhered</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, Securock</i></p> <p><i>Attachment: 304.8 mm (12") o.c. beads, 19.05 mm (¾") beads, Twin Pack</i></p>	<p>Insulation (top): 38.1 – 101.6 mm (1.5" - 4") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (top): 304.8 mm (12") o.c. beads, 19.05 mm (¾") beads, Twin Pack</p> <p>Insulation (bottom): 38.1 – 101.6 mm (1.5" - 4") thick, ISOGARD GL/ISOGARD CG</p> <p>Attachment (bottom): 304.8 mm (12") o.c. beads, 19.05 mm (¾") beads, Twin Pack</p>	<p>Cover Board: 12.7 mm (½") thick ISOGard HD -or- Min. 6 mm (¼") thick, 4' x 4' boards Securock</p> <p>Attachment: 305 mm (12") o.c. beads, 19.05 mm (¾") beads, Twin Pack Adhesive;</p>	<p>Membrane: RubberGard LS-FR EPDM RubberGard EcoWhite EPDM RubberGard MAX EPDM RubberGard MAX FR EPDM Fire-Retardant RubberGard EPDM</p> <p>Attachment: Full Coverage EPDM Bonding Adhesive BA-2004(T)</p>

RubberGard EPDM Attached Membrane

RubberGard EPDM Membrane - Dynamic Uplift Resistance (DUR) as per CSA A123.21				
Deck Type & Uplift with SF of 1.5	Vapor Barrier/ Thermal Barrier	Insulation and Attachment	Cover Board and Attachment	Membrane and Attachment
<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>2.9 kPa (-60 psf)</p> <p>Document Number: PUB-DRU283221</p>	<p>Vapor Barrier: V-Force Basegard SA Polyethylene Kraft paper</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, DensDeck DensDeck Prime Securock</i></p> <p><i>Attachment: Loose Laid</i></p>	<p>Insulation: 25 mm – 203 mm (1" – 8") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: Loose Laid Mechanically Attached</p>	<p>Cover Board: 3 mm – 15.9 mm (⅛" - ⅝") thick, ISOGARD HD ISOGARD HG Securock</p> <p>Attachment: 12 HD Fasteners per 4' x 8' board</p>	<p>Membrane: RubberGard MAX EPDM Platinum EPDM EcoWhite membranes EPDM PT membranes</p> <p>Attachment: 84" o.c. Metal Batten Strips, 12" o.c. HD Fasteners</p>

RubberGard EPDM Attached Membrane (Continued)

<p>Steel 18-22 ga Y: 33 ksi T: 45 ksi</p> <p>3.2 kPa (-67 psf)</p> <p>File Number: FBPS-225611-01 System A</p>	<p>Vapor Barrier: V-Force Basegard SA Polyethylene Kraft paper</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, DensDeck DensDeck Prime Securock</i></p> <p><i>Attachment: Loose Laid</i></p>	<p>Insulation: 38 mm – 203 mm (1.5" – 8") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG</p> <p>Attachment: Loose Laid Mechanically Attached</p>	<p>Cover Board: 3 mm – 15.9 mm (3/8" - ⅝") thick, ISOGARD HD DesnDeck Prime Securock</p> <p>Attachment: 12 HD Fasteners and Insulation Plates per 4' x 8' board</p>	<p>Membrane: RubberGard EPDM Platinum EPDM EcoWhite membranes RubberGard MAX EPDM EPDM PT membranes</p> <p>Attachment: 72" o.c. QuickSeam R.M.A. Strips 12" o.c. HD Fasteners and V-Plates</p>
Deck Type & Uplift	Vapor Barrier/ Thermal Barrier	Insulation and Attachment	Cover Board and Attachment	Membrane and Attachment
<p>Steel 22 ga Yield Strength: 275 MPa (40 ksi)</p> <p>Passing Pressure: 45 psf (1.15 kPa)</p> <p>Wind Uplift Resistance (Resistance Factor 0.65): 30 psf (1.44 kPa)</p> <p>Document Number: HSP-MARS-7 Test Panel Number: HSP-D5</p>	<p>Vapor Barrier: V-Force (Self-Adhered) BaseGard SA (Self-Adhered) 6-mil Polyethylene Kraft paper</p> <p><i>Thermal Barrier (Optional): 6 mm – 15.9 mm (¼" - ⅝") thick, DensDeck DensDeck Prime Securock</i></p> <p><i>Attachment: Loose Laid Adhered Mechanically Attached</i></p>	<p>Insulation: Top Layer min. 38.1 mm (1.5") thick, 4' x 8' boards ISOGARD GL/ISOGARD CG; ISOGARD HG; ISOGARD HD Composite</p> <p><i>Attachment with optional Cover Board: Loose Laid</i></p> <p>Attachment: 8 HD Fasteners and Insulation Plates per 4' x 8' board</p>	<p><i>Cover Board (Optional): Min. 6.35 mm (¼") thick, 4' x 4' boards DensDeck Prime Securock OR 1/2" ISOGARD HD OR 7/16" APA Rated OSB</i></p> <p><i>Attachment: 8 HD Fasteners and Insulation Plates per 4' x 8' board</i></p>	<p>Membrane: RubberGard MAX EPDM RubberGard MAX FR membranes</p> <p>Attachment: Elevate Heavy Duty Fasteners with Elevate V- Plates 114" o.c. Rows 6" o.c. Fasteners</p>

This guide is meant to highlight Elevate products and specifications provided by Holcim Solutions & Products US, LLC and is subject to change without notice. Holcim takes responsibility for furnishing quality materials which meet published Elevate product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Holcim nor its representatives practice architecture. Holcim Solutions & Products US, LLC offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Holcim accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Holcim representative is authorized to vary this disclaimer.