MASONRY SHOP DRAWINGS PART 1 OF 2. - Received June 17, 2019.
- Reviewed June 19th, 2019 (FB).

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Phone: (613) 623-3613 ⊛ Fax: (613) 623-8705
Email: cfenton@mcgonigalconstruction.ca

McGonigal Construction Ltd.

Transmitted

Attention:	Pat Newton	From:	Christyl Fenton
Company:	Tal-Co	Date:	June 17, 2019
Phone:	613-821-3959	Fax: 613-821-2938	
Reference:	Product Data and MSDS Sheets For Meridian Community Centre	Pages:	

Pat,

Attached you will find the product data and MSDS sheets for Meridian Community Centre.

Please review and advise as soon as possible.

Should you have any further questions, please contact the undersigned at your earliest convenience. Thank you.

Sincerely,

Christyl Fenton

Christyl Fenton
Project Coordinator
McGonigal Construction Ltd.

SHOP DRAWING REVIEW

REVIEWED ☐
REVIEWED AS NOTED ☑
REVISE AND RESUBMIT ☐

HOBIN ARCHITECTURE

"This review is for the sole purpose of ascertaining conformance with the general design concept for architectural features only, and does not in any way constitute review of the design of engineering elements which form part of the Contract Documents prepared by others. This review shall not mean that the Architect approves the detail design inherent in the shop drawings. This responsibility shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes, or to techniques of construction and installation and for co-ordination for the work of all trades."

By: Bryan Bonell Date: June 23, 2019
HOBIN ARCHITECTURE INCORPORATED

PRODUCT DATA ONLY

McGONIGAL CONSTRUCTION LTD.

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Telephone (613) 623-3613 Fax (613) 623-8705

SHOP DRAWING & SAMPLE SUBMITTAL

Project Title:	Meridian Community Centre
Project Number:	
Date:	June 14th, 2019

***SUBCONTRACTOR*:**	McGonigal Construction Ltd.
(name & address)	245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Contact Name:	Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number:	(613) 623-3613

***SUPPLIER*:**	Merkley Supply
(name & address)	100 Bayview Road
	Ottawa, Ontario
Contract Name:	Paul Mutter
Telephone Number:	613-728-2693

***MANUFACTURER*:**	Meridian-Burlington
(name & address)	5155 Dundas Street W
	Burlington, Ontario
Contact Name:	
Telephone Number:	905-355-3401

Specification Name:	Masonry
Specification Section:	4200
Paragraph Number:	
Product Submission:	Williamsburg MK II - CSR Brick ✓ BVN Type 1
	CSR size : 90d x 70h x 225L.

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Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) DOW Insulation
450 1st SW Suite 2100
Calgary, AB

Contact Name:
Telephone Number: 866-583-2583

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: 38 mm SM Insulation ✓

STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation

1. PRODUCT NAME

STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation

2. MANUFACTURER

Dow Chemical Canada ULC
Dow Building Solutions
450-1st St. SW, Suite 2100
Calgary, AB T2P 5H1
1-866-583-BLUE (2583) (English)
1-800-363-6210 (French)

dowbuildingsolutions.com

3. PRODUCT DESCRIPTION

STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation is a multi-purpose extruded polystyrene board that helps to meet the needs of the commercial and residential foundation and slab market. The closed-cell structure of STYROFOAM™ Brand SM Insulation resists water absorption, enabling it to retain a high R-value (RSI)* over time – a necessary property in below-grade residential foundation applications.

STYROFOAM™ Brand SM Insulation helps to protect foundation dampproofing and waterproofing, especially during backfilling. It also provides a secondary barrier against groundwater leakage. With STYROFOAM™ Brand SM Insulation, the freeze-thaw cycling of the foundation wall is minimized, reducing the possibility of cracking. And a warmer foundation wall reduces the potential for condensation and adds to the thermal mass of the building.

Basic Use

STYROFOAM™ Brand SM Insulation can be used against almost any commercial or residential foundation wall in above- and below-grade applications.

*R means resistance to heat flow. The higher the R-value or RSI, the greater the insulating power.

4. TECHNICAL DATA

Applicable Standards

ASTM International

- ASTM C518 – Standard Test Method for Steady-State Thermal Transmission Properties by wMeans of the Heat Flow Meter Apparatus
- ASTM D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- ASTM E96 – Standard Test Methods for Water Vapour Transmission of Materials
- ASTM D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30° and 30°C with a Vitreous Silica Dilatometer
- ASTM D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- CAN/ULC S701 Type 4
- CCMC 04888-L

Physical Properties

STYROFOAM™ Brand SM Insulation exhibits physical properties as indicated in Table 2 when tested as represented.

TABLE 1: Sizes, R-values and Edge Treatments for STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation

Standard Size (Imperial)[1]			
Board Thickness[1], Inches (mm)	R-Value	Board Size (Inches)	Edge Treatment
1.0	5.0	24 × 96	Butt Edge & Shiplap
1.5	7.5	24 × 96	Butt Edge & Shiplap
2.0**	10.0	24 × 96	Butt Edge & Shiplap
2.4	12.0	24 × 96	Shiplap
2.5	12.5	24 × 96	Shiplap
3.0	15.0	24 × 96	Butt Edge & Shiplap
4.0	20.0	24 × 96	Butt Edge & Shiplap
Standard Size (Metric)[1]			
Board Thickness[1], Millimeters	RSI	Board Size (mm)	Edge Treatment
50	1.73	600 × 2400	Butt Edge & Shiplap
75	2.61	600 × 2400	Butt Edge & Shiplap

(1) Not all product sizes are available in all regions.

** Also available in 4×8 Shiplap

Additional sizes may be stocked on a regional basis. Contact your local Dow seller for additional information.

TABLE 2: Physical Properties of STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation

Property And Test Method	Value
Thermal Resistance per Inch (25 mm), ASTM C518 @ 75°F (24°C) mean temp., ft²•h•°F/Btu (m²•°C/W) min., R-value (RSI)	5.0 (.88)
Compressive Strength[1], ASTM D1621, psi (kPa), min.	30 (207)
Water Absorption, ASTM D2842, % by volume, max.	0.7
Water Absorption, ASTM C272, % by volume, max	0.3
Water Vapour Permeance, ASTM E96, perm (ng/Pa•s•m²), max.[2]	1.6 (90)
Maximum Use Temperature, °F (°C)	165 (74)
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F (mm/m•°C)	3.5×10^{-5} (6.3×10^{-2})

(1) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.

(2) Based on 1" (25 mm) thickness.

Environmental Data

STYROFOAM™ Brand SM Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential.

STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation is reusable in many applications.

STYROFOAM™ Brand Insulation products produced in North America contain an average of 20% pre-consumer recycled content certified by UL Environment Inc.

Fire Information

STYROFOAM™ Brand SM Insulation is combustible; protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

5. INSTALLATION

STYROFOAM™ Brand SM Insulation boards are easy to handle, cut and install. In particular, STYROFOAM™ Brand SM Insulation with shiplap edges is designed to ensure energy efficiency and minimize on-site cutting and waste. Use a polystyrenecompatible adhesive to hold boards in place during backfilling. Apply caulk or mastic to the top of boards to prevent water infiltration behind the insulation. To complete the installation, parge the above-grade portions of STYROFOAM™ Brand SM Insulation.

It is recommended that any masonry irregularities or jagged surfaces on the foundation wall or slab be removed prior to installation. Below-grade walls should be protected from moisture leakage and dampness prior to installation of STYROFOAM™ Brand SM Insulation.

Visit www.dowbuildingsolutions.com or contact your local Dow representative for more specific instructions.

6. AVAILABILITY

STYROFOAM™ Brand SM Insulation is distributed through an extensive network. For more information, contact your local Dow representative or call:

- 1-800-232-2436 (English)
- 1-800-565-1255 (French)

7. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using STYROFOAM™ Brand SM Extruded Polystyrene Foam Insulation. Technical personnel are available to assist with any insulation project. For Technical assistance, call:

- 1-866-583-BLUE (2583) (English)
- 1-800-363-6210 (French)

8. FILING SYSTEMS

www.dowbuildingsolutions.com

Dow Chemical Canada ULC
Dow Building Solutions
Suite 2100 • 450 – 1st St. SW
Calgary, AB T2P 5H1w

US
Technical Information: 1-866-583-BLUE (2583) (English)
1-800-363-6210 (French)
Sales Information: 1-800-232-2436 (English)
1-800-565-1255 (French)

dowbuildingsolutions.com

Printed in U.S.A.
Form No. 178-00272-0816 CDP

M'GONIGAL CONSTRUCTION LTD.

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Telephone (613) 623-3613 Fax (613) 623-8705

SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
Project Number:
Date: June 14th, 2019

***SUBCONTRACTOR*:**
(name & address) McGonigal Construction Ltd.
245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Givesco
795 rue Due Vernon
Gatineau, Quebec

Contract Name: Peter Champagne
Telephone Number: 819-770-5582

***MANUFACTURER*:**
(name & address) Brampton Brick
225 Wanless Drive
Brampton, Ontario

Contact Name:
Telephone Number: 905-840-1011

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Standard Concrete Block ✓

BRAMPTON BRICK

2hr fire-rated 20cm block

Brampton Brick Ltd. manufactures a 20cm (190mm) 2hr fire-rated standard concrete block for construction of bearing or non-bearing walls, for compliance with National and Provincial fire safety and fire protection building codes. Our product has been inspected and tested by Underwriters Laboratories of Canada Ltd, and designated as FR2 Blocks. Our certificate No. 20160324-R25842 is available online. **Click here***.

PRODUCT DATA SHEET

PCR BLOCK - 2HR FIRE-RATED 20cm (190mm) STANDARD CONCRETE BLOCK

Design No. U905 | Design No. U913

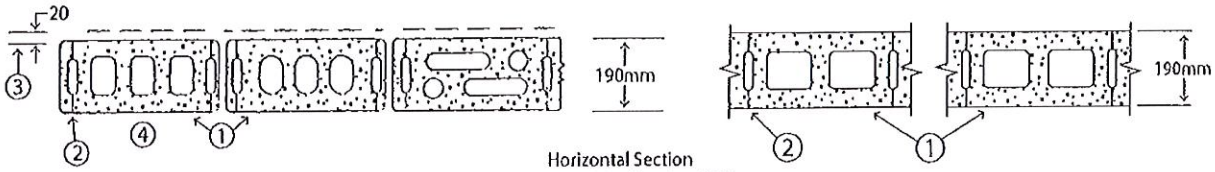
COMPANY NAME	CATEGORY NAME	LINK TO FILE
Brampton Brick Ltd.	Concrete Blocks	CAZTC.R25842
Deisgn No. U905	Fire-resistance Rating	BXUVC.U905
Design No. U913	Fire-resistance Rating	BXUVC.U913

Design No. U905
December 01, 2015

Assembly Rating - 2h
Load Restricted – Assembly evaluated in accordance with Working Stress Design methods, for use under Limit States Design methods; refer to information under Guide BXUVC.

Design No. U913
January 15, 2015

Assembly Rating - 2h



Horizontal Section
Bearing or Non-bearing Wall

U905

1. Concrete Blocks of Various Designs — (CAZTC). 2 h rating based on non-combustible members framed into wall. Rating is 1 h when combustible members are framed into wall.

2. Mortar — Blocks laid in full bed of mortar, 13mm thick, of 3 parts of clean and sharp sand to 1 part Portland Cement (proportioned by volume), and 15% hydrated lime (by cement volume). Vertical joints staggered.

3. Portland, Cement, Stucco or Gypsum Plaster — Add 1/2 h to Classification if used. Where combustible members are framed in wall, plasteror stucco must be applied on the face opposite framing to achieve a max Classification of 1-1/2 h.

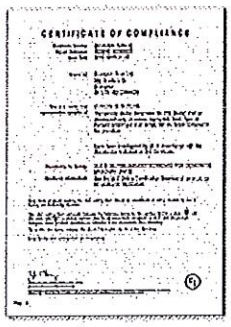
4. Loose Masonry Fill — If all core spaces are filled with loose dry expanded slag, burned clay or shale (Rotary Kiln Process) or water repellent vermiculite masonry fill insulation, add 2 h to Classification.

U913

1. Concrete Blocks of Various Designs — (CAZTC). 2 h rating based on noncombustible members framed into wall. BRAMPTON BRICK LTD — PCR Blocks

2. Mortar — Blocks laid in full bed of Type S mortar, 10mm thick. Vertical joints staggered.

Our certificate
No. 20160324-R25842
is available online.
Click Here*



ULC LISTED

***Certificate can be located at:**
http://bramptonbrick.com/sites/default/files/pdfs/resources/UL_CERTIFICATE_OF_COMPLIANCE.pdf

To find a dealer nearest you please visit:
BramptonBrick.com

Or, call us toll free at:
1.800.GO.BRICK (462-7425) (Canada)
1.844.GO.BRICK (462-7425) (USA)

McGONIGAL CONSTRUCTION LTD.

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Telephone (613) 623-3613 Fax (613) 623-8705

SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
Project Number:
Date: June 14th, 2019

***SUBCONTRACTOR*:**
(name & address) McGonigal Construction Ltd.
245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) Henry Bakor ✓
15 Wallsend Ave
Scarborough, Ontario

Contact Name: Rene
Telephone Number: 800-387-9598

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: TWF (Thru Wall Flashing) ✓

TECHNICAL DATA SHEET

Blueskin® TWF

Self-Adhesive Thru-Wall Flashing Membrane

Physical Properties

-Color	Yellow	-Low Temperature Flex. at -30°C. (CGSB 37-GP-56M)	Pass
-Thickness	1.0 mm (40 mils)		
-Film Thickness	0.1mm	-Water Vapor Permeance (ASTM E96 Method B)	1.6 ng/Pa.s.m² (0.03 Perms)
-Application Temperature	Min. Minus 4°C		
-Service Temperature	Minus 40°C to 80°C	-Tear resistance Initiation (ASTM D1004)	200N (13 lbs.) MD
-Elongation (ASTM D412 Die C)	200% minimum	-Propagation (ASTM D1938)	75N (9 lbs.) MD
-Tensile Strength (Membrane) ASTM D412 Die C	3400 kPa (493 psi) minimum	-Lap Peel Strength at -4°C. (ASTM D1876)	8.75N/cm (5 lbf/in)width
-Tensile Strength (Film) ASTM D882	39500 kPa (5723 psi) minimum	-Adhesion to Concrete (ASTM D903)	8.75N/cm (5.0 lb/in.) width
-PunctureResistance - Membrane (ASTM E154)	180N minimum (40 lbf)	-Moisture absorption (ASTM D570-81)	0.1%max.
-Flow (ASTM D5147)	Pass @ 110°C		
-Watertightness (CGSB 37.58 - M86)	Pass		

Packaging

-Thickness	1.0 mm (40 mils)	-Gross Coverage	
-Roll Length	22.9m (75 ft).		
-Roll Widths	900mm (36")	900 mm (36")	20.9 m² (225 ft²)
	600mm (24")	600 mm (24")	13.9 m² (150 ft²)
	450mm (18")	450 mm (18")	10.4 m² (112.5 ft²)
	300mm (12")	300 mm (12")	6.9 m² (75 ft²)
-Top Surface	Yellow, Cross-Laminated HDPE		
-Bottom Surface	Siliconized Release Paper		

Description

Blueskin® TWF is a self-adhered membrane consisting of an SBS rubberized asphalt compound which is integrally laminated to a yellow cross-laminated polyethylene film. **Blueskin® TWF** is specifically designed for use as a thru-wall flashing and dampproof course. Available in 300mm (12"), 450mm (18"), 600mm (24") and 900mm (36") widths.

Features

- Impermeable to air, moisture vapor and water
- Flexible at low temperatures
- Excellent adhesion to prepared substrates
- Excellent compatibility with most **Bakor** adhesives and liquid air barrier membranes
- Exceptional puncture and abrasion resistance
- Self-sealing when penetrated with self -tapping screws

Uses

Used as a thru-wall flashing membrane and may be used in conjunction with **Bakor Air Barrier Systems.**

Henry Company Canada, 15 Wallsend Drive, Scarborough, ON M1E 3X6
Tel: 800-486-1278 **Email:** techservices@henry.com

www.bakor.com

REV: 07/19/10

Limitations

Non-resistant to oils and solvents not designed for permanent exposure. Yellow surface film may release on extended exposure to U.V. Good practice calls for covering as soon as possible. Do not extend **Blueskin® TWF** beyond face of exterior wall or veneer. Avoid sealant contact with the underside (compound side) of **Blueskin® TWF.** Apply under dry conditions when air and surface temperatures are above -4°C. Not to be used in direct contact with flexible PVC/vinyl membranes or gaskets. Some sealants may discolor if in contact with the asphalt compound or may soften the asphalt compound. Contact sealant manufacturer for more information.

Storage

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area not subject to heat over 40°C or under -10°C. Double stacked pallets are not recommended. If double stacking is necessary, use a plywood sheet to distribute the load.

Surface Preparation

Acceptable substrates are precast concrete, cast-in place concrete, concrete block, primed steel, aluminum mill finish, anodized aluminum, galvanized metal, gypsum board and wood. All surfaces to receive **Blueskin® TWF** must be clean of oil, dust and excess mortar. Strike masonry joints flush. Concrete surfaces must be smooth and without large voids, spalled areas or sharp protrusions. Concrete must be cured a minimum of 14 days and must be dry before **Blueskin® TWF** is applied.

Apply **Blueskin® Primer, Aquatac™ Primer or Hi-Tac Primer** by brush or roller at the rate of approximately 7.2 m^2/L (300 ft^2/gal.), depending on porosity and texture of surface and allow to dry for a minimum of 30 minutes before **Blueskin® TWF** is applied. Allow additional time for primer to set if wet to the touch or can be easily rubbed off. Ensure that all primed surfaces receive **Blueskin® TWF** in the same day or re-priming may be required.

Application

Material should be conditioned at room temperature for ease of application.

Cut the desired length of **Blueskin® TWF** and remove siliconized release paper. Position into place and apply positive pressure using a roller. Use care to avoid blisters and folds. Overlap all joints by 50mm (2"). Keep **Blueskin® TWF** back 12mm (½") to 25mm (1") from outside face of wall or veneer. At all laps, seams, penetrations, and along top edges of **Blueskin® TWF**, apply a continuous bead of rubberized mastic such as **Air-Bloc** or **POLYBITUME® 570-05**. Form end dams as required and use rubberized mastic at laps.

Top or leading edge of **Blueskin® TWF** must be sealed with a rubberized mastic such as **Air-Bloc, POLYBITUME® 570-05 or HE925 BES Sealant** to prevent rain water from migrating behind the membrane.

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(name & address) Henry Bakor ✓
15 Wallsend Ave
Scarborough, Ontario

Contact Name: Rene
Telephone Number: 800-387-9598

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Blueskin Adhesive (Primer) ✓

Henry COMPANY BAKOR

TECHNICAL DATA SHEET

Blueskin® Adhesive

Adhesive for Self-Adhered Membranes

Physical Properties

-Colour	Blue	-Service Temp	Minus 40°C to 70°C
-Solids by Weight	35%	-Application Temp	Minus 12°C to 40°C
-Weight	0.8 kg/l (6 lbs./gal. U.S.) (approx.)	-Flammability	
		Wet	Flammable
-Coverage	2 to 6 m^2/l (up to 250 ft^2/gal. U.S.) depending on porosity and texture of surface.	Dry	Burns
-Drying Time			
Initial Set	30 minutes		
Set Through	2 hours		

Description

Blueskin® Adhesive is a rubber based adhesive for self-adhered membranes.

Features

- Quick setting
- Aggressive tack provides increased adhesion of membrane
- Suitable for application at normal and low temperatures
- Easily applied

Uses

Used as an adhesive to increase bond strength of self-adhered membranes such as **Blueskin® SA, Blueskin® WP 200, Blueskin® ROOF RF 200, Blueskin PE200HT, Vapor Bloc SA** or **DuraTac** when applied to masonry, concrete, wood, gypsum board, DensGlass Gold® and metal surfaces.

Blueskin® Adhesive is the product of choice on above grade applications of self-adhered membranes where a quick setting, aggressive tack, solvent based adhesive is required.

Designed for applications above -12°C.

Limitations

Solvent in product attacks polystyrene insulation. Avoid use where solvent odours may taint food or other susceptible products..

Packaging

Blueskin® Adhesive is packaged in 17L and 3.5L pails.

Henry Company Canada, 15 Wallsend Drive, Scarborough, ON M1E 3X6
Tel: 800-486-1278 **Email:** techservices@henry.com

www.bakor.com

REV: 8/23/12

Blueskin® Adhesive for Self-Adhered Membranes

Preparation

Surfaces must be dry and free from dust, dirt, grease, oil or other foreign matter.

Application

Apply by brush, roller or spray. Rollers should have a heavy nap of natural material such as lamb's wool. Allow Adhesive to dry for 30 minutes before applying membrane.

Coated surfaces not covered by membrane during the working day must be re-coated.

Clean Up

Use mineral spirits.

Caution

Contains extremely flammable solvents. Take suitable fire precautions. Do not allow smoking or welding in working area. Keep away from open flame or spark. Use under well ventilated conditions. Avoid prolonged breathing of vapours and repeated contact with skin. Excessive inhalation of vapours can cause dizziness. (Use respirator approved for organic vapours). Keep containers covered when not in use. Harmful if swallowed.

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(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) Hohmann & Barnard Inc
30 Rason Court
Hauppauge, NY

Contact Name:
Telephone Number: 800-645-0616

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

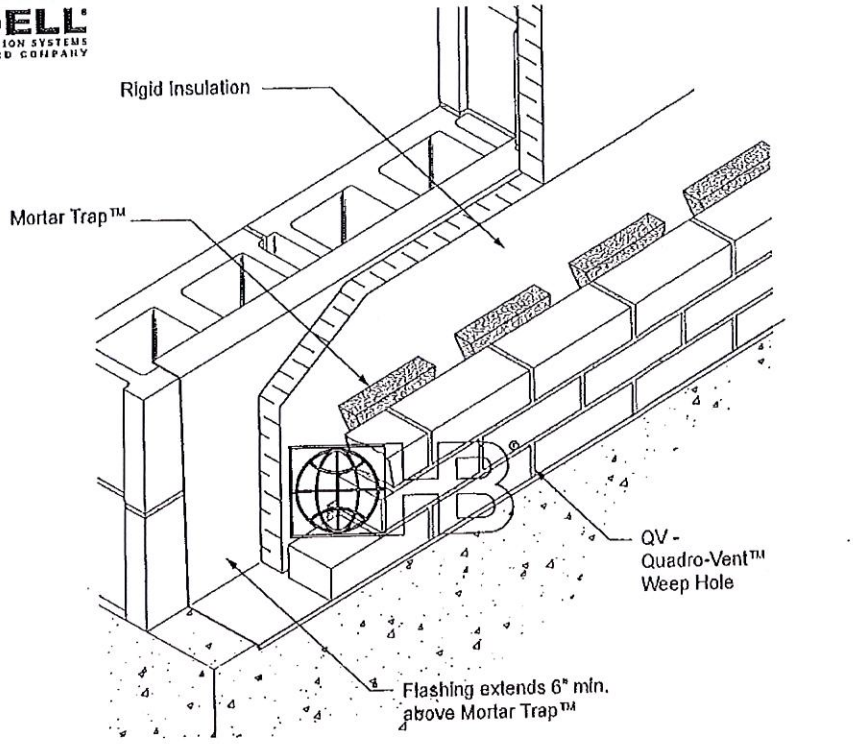
Product Submission: Mortar Trap

HOHMANN & BARNARD, INC.
A MiTek - BERKSHIRE HATHAWAY COMPANY

Mortar Collection Systems

Mortar Trap™

SANDELL
MOISTURE PROTECTION SYSTEMS
A HOHMANN & BARNARD COMPANY



DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Mortar Trap™
Mortar Trap™ is manufactured from high-density polyethylene (HDPE) strands woven into a 90% open mesh. Its unique shape breaks up mortar droppings and prohibits mortar from creating a moisture retaining barrier, allowing water to flow freely to the weep holes.

Features:

- 90% open mesh construction allows unobstructed passage of air & water through the material itself so walls breathe, drain & dry quicker.
- Will not react with common building products (PVC, polystyrene, copper, rubberized-asphalt, lead, stainless steel or galvanized metal).
- Will not: absorb or trap moisture, support mold or fungus, and is inedible to insects.
- Will not degrade as a result of temperature variations and is designed to last for the life of the building.
- Keeps weep holes open - catches and permanently suspends mortar-droppings so blockage can't occur.
- Fast, easy installation by masons - does not require fasteners or adhesives, no special skills or tools.
- Slightly compressible to allow for cavity variations in the field.

Thickness: (Mortar Trap™ is 10" high x 4' long)

- ☐ 0.4"
- ☐ 1"
- ☐ 1 ½"
- ☐ 2"

NOTE: When Mortar Trap™ is used with the Quadro-Vent™ Weep Hole additional insect screening is not required.

HOHMANN & BARNARD, Inc.
30 Rasons Court | Hauppauge, NY 11788
CORPORATE HEADQUARTERS
T: 800.645.0616 F: 631.234.0683
www.h-b.com

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McGONIGAL CONSTRUCTION LTD.

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Telephone (613) 623-3613 Fax (613) 623-8705

SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
Project Number:
Date: June 14th, 2019

***SUBCONTRACTOR*:**
(name & address) McGonigal Construction Ltd.
245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) CRH ✓
2391 Lakeshore Road, W
Mississauga, Ontario

Contact Name: John Hellyer
Telephone Number: 905-822-1653

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Type "S" Masonry ✓

CRH Canada Group Inc.
2391 Lakeshore Road West
Mississauga, Ontario
L5J 1K1 Canada

T. 905-822-1653
F. 905-822-7445

www.crhcanada.com

GENERAL SPECIFICATION

Mason's Choice®

TYPE 'S' Masonry Cement

PRODUCT:

Grey, **Type S Masonry Cement**

Masonry Cement, Grey **Type S** as defined by CSA A3002

COMPOSITION:

Masonry cement Type S is a blended material containing Portland cement clinker and plasticizing materials. Type S cement can be used when higher-strength mortars are required to suit the project requirements.

PHYSICAL PROPERTIES: CSA A3002 Masonry Cement

		Typical
Fineness		
Retained on 45µm Sieve		7 %
Blaine		425
Soundness		
Expansion		0.1 %
Water Retention Value		82%
Setting Time	Initial »	300 min
	Final »	490 min.
Compressive Strength		
Age Tested	7 day	13 MPa
	28 day	20 MPa
Air Content		17 %
Specific Gravity		2.99

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100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) CRH ✓
2391 Lakeshore Road, W
Mississauga, Ontario

Contact Name: John Hellyer
Telephone Number: 905-822-1653

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Type "N" Masonry ✓

CRH Canada Group Inc.
2391 Lakeshore Road West
Mississauga, Ontario
L5J 1K1 Canada

T. 905-822-1653
F. 905-822-7445

www.crhcanada.com

GENERAL SPECIFICATION

Mason's Choice®

TYPE 'N' Masonry Cement

PRODUCT:

Grey, **Type N Masonry Cement**

Masonry Cement, Grey **Type N** as defined by CSA A3002

COMPOSITION:

Masonry cement Type N is a blended material containing Portland cement clinker and plasticizing materials. Type N cement can be used when high-strength mortar is not required to suit the project requirements.

PHYSICAL PROPERTIES - CSA A3002:

		Typical
Fineness		
Retained on 45µm Sieve		7 %
Blaine		575
Soundness		
Expansion		0.1 %
Water Retention Value		82%
Setting Time	Initial »	360 min
	Final »	580 min.
Compressive Strength		
Age Tested	7 day	6 MPa
	28 day	10 MPa
Air Content		19 %
Specific Gravity		2.90

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SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
Project Number:
Date: June 14th, 2019

***SUBCONTRACTOR*:**
(name & address) McGonigal Construction Ltd.
245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Givesco
795 rue Due Vernon
Gatineau, Quebec

Contract Name: Peter Champagne
Telephone Number: 819-770-5582

***MANUFACTURER*:**
(name & address) Blok Lok ✓
12 Ashbridge Circle
Woodbridge, Ontario

Contact Name:
Telephone Number: 905-226-2277

Specification Name: Masonry

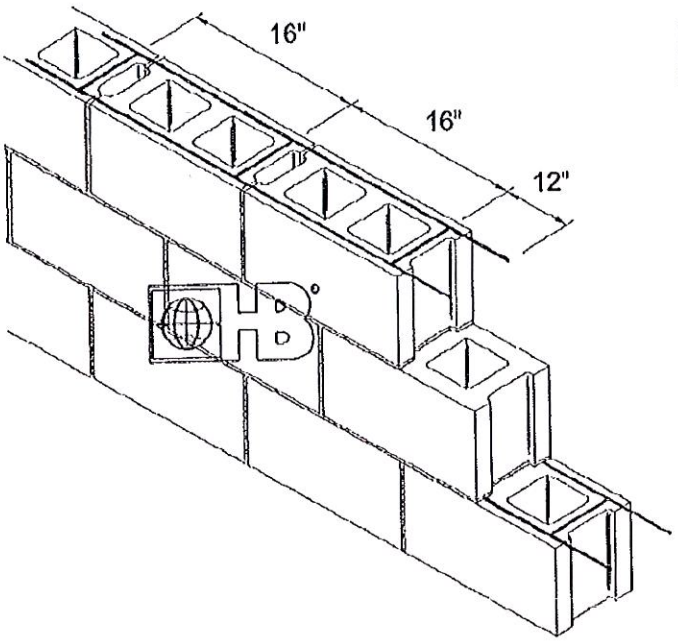
Specification Section: 4200

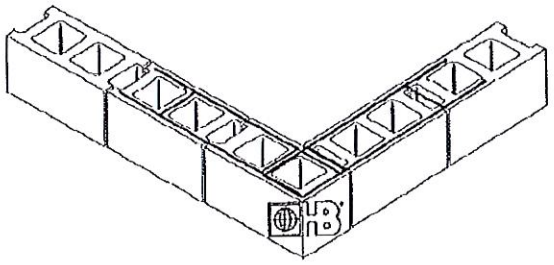
Paragraph Number:

Product Submission: BL 10 (Ladder Wire) ✓

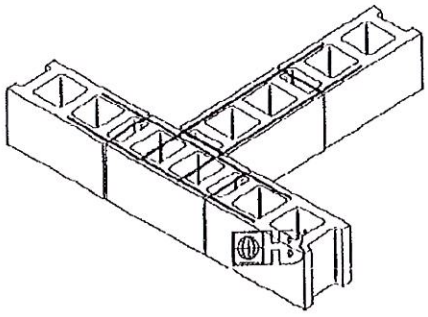
BLOK-LOK
A HOHMANN & BARNARD COMPANY

Ladder Reinforcement
BL-10 Ladder Reinforcement





Prefabricated Corner



Prefabricated Tee

DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY

Material Conformances - Joint Reinforcement
Blok-Lok joint reinforcement products conform to
ASTM A951/A951M (Standard Specification for Steel Wire for Masonry Joint Reinforcement)
ACI / ASCE 530 (Building Code Requirements for Masonry Structures)
CSA standard A370-14.

Wire: (Carbon Steel): Prefabricated construction from cold-drawn steel wire conforming to ASTM A 82:
Tensile Strength - 80,000 p.s.i.
Yield Point - 70,000 p.s.i. minimum

Wire Diameter:
9 gauge (.148" or W1.7)
3/16" (.187" or W2.8)
Side Rods and Cross Rods available in any combination of the above.
Cross Rods welded 16" O.C.
First Cross Rods welded 12" in from each end to allow lap splices per code requirements.

Note: Bed joint alignment for connecting wythes recommended.

Blok-Lok manufactures steel wire products from a minimum of 95% recycled material.

Finishes:

- ☐ Mill Galvanized Coating: ASTM A 641 (0.1 oz/ft²)
- ☐ Hot-Dip Galvanized after fabrication: ASTM A 153 (1.5 oz/ft²)
- ☐ Stainless Steel: ASTM A 580 - AISI Type 304 (Type 316 available on special order).

Note: Blok-Lok recommends Stainless Steel for maximum protection against corrosion.

Wire Size:

- ☐ Standard:
  9 Gauge Side Rods x 9 Gauge Cross Rods
- ☐ Heavy Duty:
  3/16" Side Rods x 9 Gauge Cross Rods
- ☐ Extra Heavy Duty:
  3/16" Side Rods x 3/16" Cross Rods

Block Size:

- ☐ 4"
- ☐ 6"
- ☐ 8"
- ☐ 10"
- ☐ 12"
- ☐ 14"
- ☐ 16"

Note: For Corner or Tee, state width of block walls.

12 Ashbridge Circle | Woodbridge, Ontario, L4L 3R5, Canada
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sales@blok-lok.com | www.blok-lok.com

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SHOP DRAWING & SAMPLE SUBMITTAL

Project Title:	Meridian Community Centre
Project Number:	
Date:	June 14th, 2019

***SUBCONTRACTOR*:**	McGonigal Construction Ltd.
(name & address)	245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Contact Name:	Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number:	(613) 623-3613

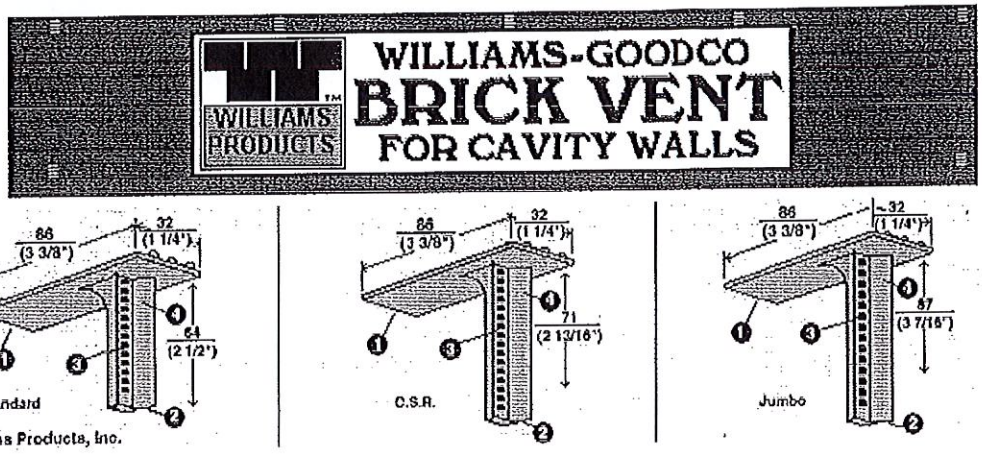
***SUPPLIER*:**	Merkley Supply
(name & address)	100 Bayview Road Ottawa, Ontario
Contract Name:	Paul Mutter
Telephone Number:	613-728-2693

***MANUFACTURER*:**	Goodco
(name & address)	3400-14th Ave Unit 41 Markham, Ontario
Contact Name:	
Telephone Number:	905-475-3336

Specification Name:	Masonry
Specification Section:	4200
Paragraph Number:	
Product Submission:	PVC Weepers ✓

Williams Products, Inc

1750 Maplelawn
Troy, MI. 48084
Toll Free: 800-521-2594 Phone: 248-643-6400
Fax: 248-643-7117



Description

The Williams-Goodco brick vent is an injection molded vent made from flexible polyvinyl chloride in an offset "T" shape. When inserted in vertical mortar joints between two bricks the slotted leg of the vent allows air to pass in and out allows water to weep out and prevents water from penetrating in.

Spacing of Brick Vents

Tests indicate that for interior/exterior air pressure equalization and for ventilation one Williams-Goodco Brick Vent to every 10 square feet of wall surface is acceptable. One per 100 square feet is a minimal number. For drainage of condensation and moisture the vents act as weepholes and should be placed directly on top of the thru-wall flashing. One vent for every 24 inches of horizontal flashing is acceptable to provide weephole drainage.

The vents are hardly noticeable after installation but a regular symmetrical spacing pattern gives the best appearance.

Functions

When rain contacts an exterior brick surface water can enter openings through any combination of the following actions: momentum of raindrops, capillary action, gravity and air currents. Cracks, joints between wall components, surface pores and inadequately bonded interfaces may provide the openings for water penetration through walls. Much of the water penetration through brick cavity walls is caused not by the driving wind and rain on the exterior face but by the suction created within the air cavity by the lower interior air pressure. This force is controlled by installing brick vents in sufficient frequency and size to allow almost immediate air pressure equalization. Since winds gust, rather than create steady pressure, vents must have enough opening area to allow a continuous exchange of air. Small tubes and wicks have generally proved inadequate because of their limited opening size and because they clog quickly.

Efflorescence
Efflorescence is reduced by minimizing rain wetting within the exterior wall. However, more absorptive brick will hold moisture from exterior rain, or condensation on the back face resulting from air leakage from the building interior, and under certain environmental conditions (particularly in late Fall) this presence of moisture can trigger efflorescence.

Glazed Brick, Paints or Silicones
When these materials are used, cavity walls are necessary to avoid serious problems. In most buildings, moisture laden air will leak from the building interior and unless some free passage is available to the outside, spelling, ice lensing or blistering can occur.

Test Reports
Tests have been conducted to determine the rates of air flow through the Williams-Goodco brick vent and to indicate acceptable spacing for exterior walls. The test procedures and results are published and available on request.

Material Specifications
The Williams-Goodco brick vent is manufactured from a polyvinyl chloride compound specifically designed for continuous exposure to weathering. This compound possesses excellent sunlight resistance, good low temperature properties and contains a polymeric plasticizer to ensure permanence. Physical Properties as determined on molded specimens by ASTM procedures:

Packaging
200 vents per carton.

Color
Light gray.
Special Colors Available.

Sizes
2-1/4", 3-5/8"
will fabricate special sizes

Short Form Specification
Williams-Goodco brick vents as supplied by Williams Products, Inc. shall be installed in the vertical mortar joints in the exterior masonry brick wall...

(a) As detailed on the drawings. (b) Directly above all through-wall flashings at (spacing). (c) Throughout the wall in every (i.e. 4th mortar joint) horizontally and every (i.e. 10th course) vertically.

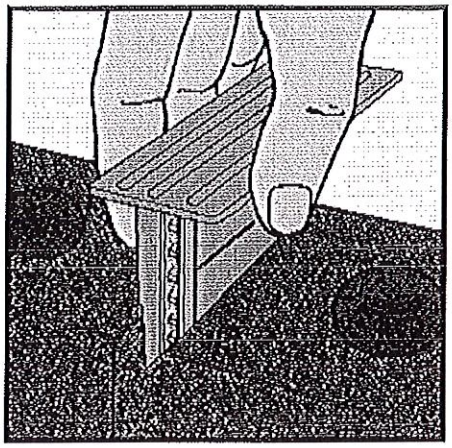
Features

(1) Top-flap - overlaps two adjacent bricks to stop mortar from falling into the air passage.

(2) Flexible Wings - to adjust to variation in mortar joint widths (5/16" - 3/4").

(3) Louvers - to allow air passages while creating a water barrier.

(4) Water ridges - when water buildup on the exterior wall surface is blown into the air passage these ridges create a barrier which directs the rain down and out of the cavity



Provide adequate opening for immediate air pressure equalization.
Act as weeper.
Provide neat, attractive appearance.
Install easily.
Impede passage of insects, din and rodents.
Block entrance to rain.
Resist clogging and the corrosive effects of masonry mortars.

McGONIGAL CONSTRUCTION LTD.

245 Fifth Avenue, Arnprior, Ontario K7S 3M3
Telephone (613) 623-3613 Fax (613) 623-8705

SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
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SUBCONTRACTOR :
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245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

SUPPLIER :
(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

MANUFACTURER :
(name & address) Fero
1535-117 Ave
Edmonton, AB

Contact Name:
Telephone Number: 780-455-5098

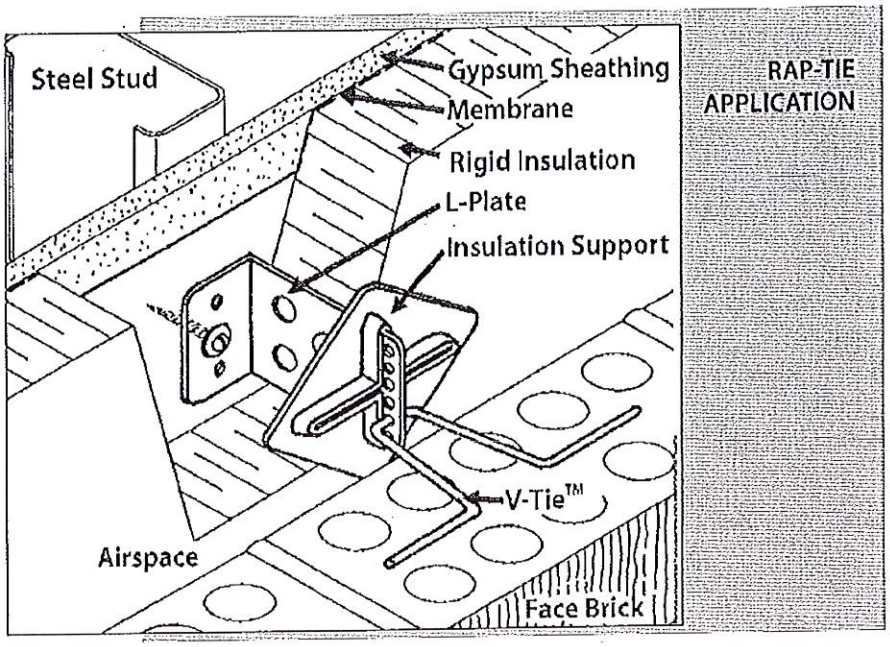
Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Rap Tie (Surface Mount) Hot Dipped ✓

RAP-TIE



Introduction

The Rap-Tie (Rod Adjustable Plate Tie) system consists of an L-Plate (a vertically orientated L-shaped steel plate), a V-Tie™ (a V-shaped steel wire), and an Insulation Support (optional, but recommended). See Figures 1, 2 and 3.

Lateral loads acting on the masonry veneer are transferred through the V-Tie™ to the L-Plate which bears against, and is fastened to, the structural backing. Attachment may be directly to a steel stud, or by surface mounting to a sheathing over a steel stud as shown in *Figures 4 and 5*, respectively. Requirements for the structural integrity and moisture protection of any intervening material in the tie load-path, such as a sheathing, are contained in CSA Standard A370, "Connectors for Masonry", ACI 530.1/ASCE 6/TMS 602 "Building Code Requirements for Masonry Structures" and the International Codes (International Building Code and International Residential Code). The holes along the outboard end of the L-Plate through which the V-Tie™ is inserted provide a positive connection, without the possibility of V-Tie™ disengagement during construction and in-service (in accordance with requirements in CSA A370 and ACI 530.1/ASCE 6/TMS 602), and permit up to 36 mm (1.4") of in-situ vertical adjustment so that a bed joint in the outer wythe will always be coincident with the V-Tie™.

Introduction...cont.

The Insulation Support, which is inserted over the end of the L-Plate and restrained by the V-Tie™, is optionally used to securely and mechanically fix cavity rigid insulation in place.

The Rap-Tie can accommodate a range of insulation thicknesses from 0 to 102 mm (0 to 4"), and air space widths of 25.4 mm (1") and greater. The L-Plate has sufficient length to accommodate the thickness of the cavity insulation, and further extends 18 mm (0.7") into the air space to expose its leading edge and facilitate in-situ placement of the V-Tie™ and optional insulation support. The V-Tie™ is inserted through the appropriate hole along the leading edge of the L-Plate coincident with the mortar bed joint so as to extend horizontally normal to the structural backing without reducing tie capacity. The legs of the V-Tie™ are positioned along the centreline of the veneer within the placement tolerances permitted by the building code having jurisdiction. Adjustment normal to the wall is facilitated by selecting an appropriate length of V-Tie™.

Components and Specifications

L-Plate: The L-Plate is manufactured from 16 gauge sheet steel (1.367 mm [0.0538"] minimum base steel thickness) and is available in both hot-dip galvanized finish and stainless steel. The weight of hot-dip galvanized finish is not less than 460 g/m²/side (1.5 oz/ft.²/side), and satisfies the requirements of CSA A370 (which references ASTM A123), ACI 530.1/ASCE 6/TMS 602 (which references ASTM A153, Class B) and the International Building Code (IBC) (which reference ASTM A153, Class B). The incorporation of holes through the body of the L-Plate minimizes thermal conductivity through the tie system.

Note: Refer to the FERO-FASTENERS brochure for complete specifications.

The overall length of the L-Plate is 18 mm (0.7") longer than the specification length (L). The specification length is the total distance between the exterior face of the insulation and the exterior face of the component of the structural backing to which the L-Plate is fastened/bears. The L-Plate is available in specification lengths (L) of 0 (0"), 28 (1.1"), 41 (1.6"), 54 (2.1"), 67 (2.6"), 79 (3.1"), 92 (3.6") and 105 (4.1") mm. Intermediate sizes are also available.

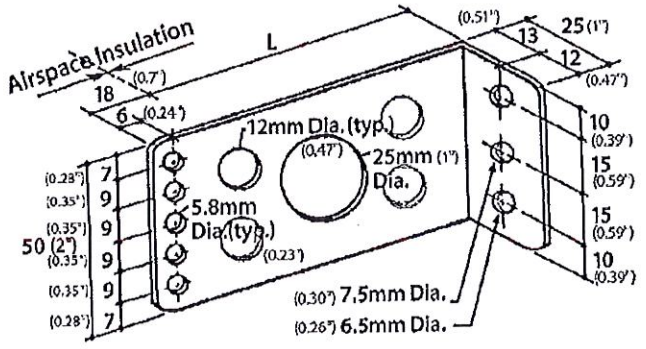


Figure 1 L-Plate

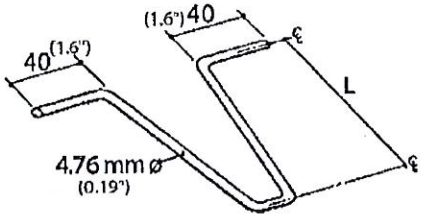


Figure 2 V-Tie™

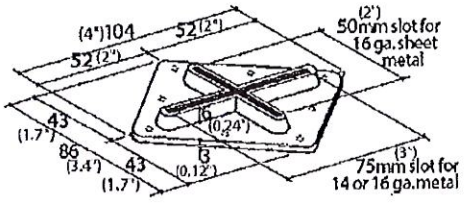


Figure 3 Insulation Support/Retainer

V-Tie™: The V-Tie™ is manufactured from 4.76 mm (0.19") diameter steel wire and is available in both hot-dip galvanized finish and stainless steel. The weight of the hot-dip galvanized finish is not less than 460 g/m² (1.5 oz/ft.²) and satisfies the requirements of CSA A370 (which references ASTM A123), ACI 530.1/ASCE 6/TMS 602 (which references ASTM A153, 458 g/m²) and the International Building Code (IBC) (which reference ASTM A153, Class B, 458 g/m²).

The V-Tie™ is available in a variety of standard lengths to accommodate different specified thicknesses of masonry veneer and design widths of air space. Varying lengths of V-Tie™ also facilitate in-situ adjustment normal to the structural backing (to accommodate construction tolerances) where the constructed width of air space differs from the design width of air space. Standard lengths of V-Tie™ include 60 mm (2.4"), 80 mm (3.1"), 100 mm (3.9"), 120 mm (4.7"), 140 mm (5.5"), 160 mm (6.3"), 180 mm (7.1"), 200 mm (7.9"), 225 mm (8.9") and 250 mm (9.8").

Insulation Support: The Insulation Support is manufactured from polyethylene. It is pressed over the outboard end of the L-Plate tightly against the cavity insulation to prevent the insulation from separating from the structural backing/air barrier. The friction fit between the Insulation Support and the L-Plate restrains the insulation during construction which is commonly installed in advance of the exterior masonry wythe. Subsequent installation of the V-Tie™ sandwiches the Insulation Support between the insulation and the V-Tie™, thereby locking the Insulation Support in-place and ensuring a reliable and permanent insulation support system.

Structural Composite Action

In most applications, the RAP-Tie is designed to simply transfer the lateral load from the exterior masonry wythe (the veneer) to the structural backing, by using more than one fastener to attach the L-Plate to the structural backing, shear forces as well as axial forces can be resisted by the Rap-Tie to provide composite action between the masonry veneer and the structural backing. The entire wall thickness, including both veneer and structural backing, becomes effective in resisting lateral loads, offering reduced lateral deflections and increased lateral resistance (see FERO Stud Shear™ Connector or Block Shear™ Connector literature). A Rap-Tie can be used for retro-fitting masonry veneer systems where reducing lateral deflection of the steel stud structural backing is a required intervention.

Unit Masonry, Dimension Cut and Manufactured Stone Veneer Applications

In addition to its use in unit masonry veneer applications *(Figures 4 and 5)* including both clay brick and concrete masonry, the Rap-Tie system can be utilized in the application of stone or thin masonry veneer, as illustrated in *Figure 6*.

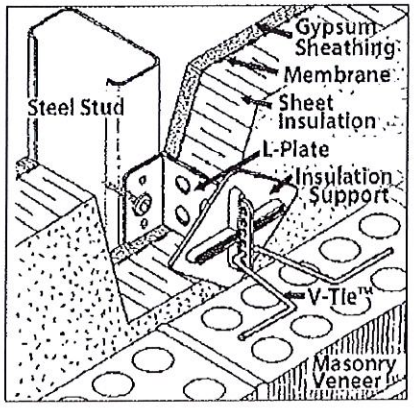


Figure 4 Rap-Tie Attached Directly to Steel Stud

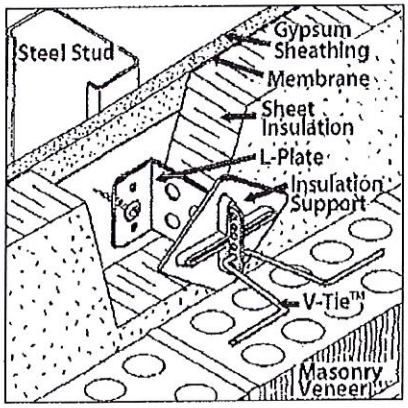


Figure 5 Rap-Tie Surface Mounted on Protected Gypsum Sheathing

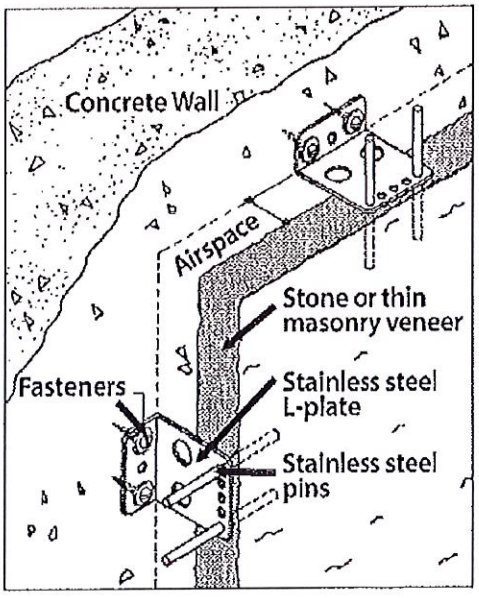


Figure 6 Rap-Tie System Application for Dimension Cut Stone Veneer

Rap-Tie Design Data

Design data for the Rap-Tie are reported separately for Canada and the United States in the following tables because design methods and requirements for masonry ties and their uses differ between their respective codes and standards.

Rap-Tie Design Data (Canada)

Design Parameter	Design Data [i], [iii]	
1. Mechanical Free Play [iv] (with FERO V-Tie™)	0.80 mm (max.) [0.031"]	
2. Serviceability at 0.45 kN [100 lbs.] [iv]	Tie Mounted Directly to Steel Stud	Tie Mounted on Surface of Protected Exterior Gypsum Sheathing Over Steel Stud [ii]
Deflection	0.47 mm [0.019"]	0.50 mm [0.02"]
Deflection + Mechanical Free Play	1.27 mm (max) [0.05"]	1.30 mm (max) [0.051"]
3. Factored Resistance (ΦP_{ult}) [v], [vi], [vii]	1.51 kN [331 lbs.]	
4. Maximum Recommended Spacing [viii]	Horiz.	Vert.
	800 mm [32"]	600 mm [24"]

Notes:

(i) These design data are based on connector testing in accordance with CSA A370-14, Connectors for Masonry, with no surcharge and with test samples having the following configuration: 127 mm [5"] cavity; 102 mm [4"] L-Plate; 25 mm [1"] air space; one (1) fastener located in the centre hole of the L-Plate; standard FERO VTie™; and V-Tie™ engaged into L-Plate at position of maximum vertical adjustment. Smaller cavity widths and/or the addition of insulations providing lateral support to the tie L-Plate will increase the tabled factored resistance of the tie and reduce tie deflection.

(ii) Protected exterior gypsum sheathing consisting of Perma-Barrier (W.R. Grace) adhered to 12.7 mm (0.5") exterior gypsum board.

(iii) These design data reflect both the windward (compression) and leeward (tension) capacities of the Rap-Tie system, with the governing values listed.

(iv) The Rap-Tie satisfies the limiting requirements for serviceability (tie displacement and mechanical free play) in CSA A370-14. Tabled mechanical free play is for stainless steel components. The mechanical free play for hot-dip galvanized components is less.

(v) The ultimate strength of the Rap-Tie, P_{ult}, is determined in accordance with CSA A370-14 and is calculated by multiplying the average tie strength established by testing by (1 – 1.64 cov). The factored resistance of the tie system ($\Phi P_{ult} = \Phi R$) is calculated using the Limit States Design procedures of CSA A370-14.

(vi) The stated tie factored resistance does not consider fastener resistance. A compatible fastener (or fasteners) having an adequate factored resistance must be selected (by design in accordance with CSA A370-14).

(vii) The factored resistance of the mortar pull-out or push-through for the V-Tie™ embedded at the centreline of 90 mm (3.5") brick veneer utilizing Type S or N mortar exceeds or equals the tabled factored resistance, ΦP_{ult}. Failure by pull-out/push through of the mortar joint does not govern.

(viii) Maximum recommended tie spacings are the maximum spacings permitted by CSA S304-14, *Design of Masonry Structures*. For a particular design, the actual tie spacings are calculated such that the factored resistance of the tie, ΦP_{ult}, equals or exceeds the effect of factored loads. See S304-14 for the design of masonry veneer systems.

Rap-Tie Design Data (U.S.)

Design Parameter	Design Data [i], [iii]	
1. Mechanical Free Play [iv] (with FERO V-Tie™)	0.031" (max.) [0.80 mm]	
2. Serviceability at 0.45 kN [100 lbs.] [v]	Tie Mounted Directly to Steel Stud	Tie Mounted on Surface of Protected Exterior Gypsum Sheathing Over Steel Stud [ii]
Deflection	0.019" [0.47 mm]	0.02" [0.50 mm]
Deflection + Mechanical Free Play	0.05" (max) [1.27 mm]	0.051" (max) [1.30 mm]
3. Nominal Strength [v], [vi], [vii], [ix], [x]	452 lb. [2.01 kN]	
4. Recommended Design Load [v], [vi], [vii], [ix], [x]	200 lb. [0.89 kN]	
5. Maximum Recommended Spacing [viii]	Horiz.	Vert.
	32" [813 mm]	18" [457 mm]

Notes:

(i) These design data are based on connector testing in accordance with CSA A370-14, Connectors for Masonry, with no surcharge and with test samples having the following configuration: 5" [127 mm] cavity; 4" [102 mm] L-Plate; 1" [25 mm] air space; one (1) fastener located in the center hole of the L-Plate; standard FERO VTie™; and V-Tie™ engaged into L-Plate at position of maximum vertical adjustment. The test method for ties in CSA A370-14 is comparable to that of ASTM E754, Test Method for Pullout Resistance of Ties and Anchors Embedded in Masonry Mortar Joints, and provides similar and more conservative results. Smaller cavity widths and/or the addition of insulations providing lateral support to the tie L-Plate will increase the nominal strength of the tie and reduce tie deflection. Prescriptive requirements for anchored masonry veneer under ACI 530.1/ASCE 6/TMS 602 limit the cavity to a maximum width of 4-1/2" (114 mm) unless the veneer is alternatively designed using a rational, engineered design method (termed "Alternative Design of Anchored Masonry Veneer").

(ii) Protected exterior gypsum sheathing consisting of Perma-Barrier (W.R. Grace) adhered to 0.5" (12.7 mm) exterior gypsum board.

(iii) These design data reflect both the windward (compression) and leeward (tension) capacities of the Rap-Tie system, with the governing values listed.

(iv) The Rap-Tie L-Plate with V-Tie™ satisfies the 1/16" (1.6 mm) maximum permissible clearance between connecting parts required by ACI 530.1/ASCE 6/TMS 602. Tabled mechanical free play is for stainless steel components. The mechanical free play for hot-dip galvanized components is less.

(v) The nominal strength of the Rap-Tie is determined by test and is reported as the average ultimate strength of the tie samples. In accordance with ACI 530.1/ASCE 6/TMS 602, using Strength Design, a suitable strength-reduction factor must be applied to the nominal strength to determine the tie design strength. Similarly, under Allowable Stress Design, an appropriate safety factor must be applied to determine an allowable load value. The tabled "Recommended Design Load" reflects a safety factor of 2.25 (that is, 75% of 3.0). [See also Note (vii) when assigning a strength reduction factor to the nominal strength].

(vi) The stated nominal strength and recommended design load do not consider fastener capacity. A compatible fastener (or fasteners) having an adequate strength must be selected (by design in accordance with ACI 530.1/ASCE 6/TMS 602).

(vii) The nominal strength (and corresponding recommended design load) of the mortar pull-out or push-through for the V-Tie™ embedded at the centerline of 3.5" (90 mm) brick veneer utilizing Type M, S or N mortar exceeds or equals the tabled nominal strength (and recommended design load). Failure by pull-out/push-through of the mortar joint does not govern.

(viii) Maximum recommended tie spacings are the maximum spacings permitted by ACI 530.1/ASCE 6/TMS 602 using prescriptive requirements for anchored masonry veneer. The prescriptive requirements in ACI 530.1/ASCE 6/TMS 602 further limit a tie tributary area to not more than 2.67 ft.² (0.25 m²) wall area [with reduced areas for high Seismic Design Categories and in areas of high winds] unless the veneer is alternatively designed using a rational, engineered method (termed "Alternative Design of Anchored Masonry Veneer"). Where an Alternative Design is used, the required tie spacing may be calculated such that the design strength of the tie equals or exceeds the required strength. See ACI 530.1/ASCE 6/TMS 602 for the design of masonry veneer systems.

(ix) The Rap-Tie L-Plate with V-Tie™ satisfies ACI 530.1/ASCE 6/TMS 602 requirements for minimum wire size of W1.7 (MW11) and for ends bent to form a minimum 2 in (50.8 mm) extension.

(x) ACI 530.1/ASCE 6/TMS 602 requires joint reinforcement in masonry veneer in high Seismic Design Categories to be mechanically attached to the masonry tie.

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SHOP DRAWING & SAMPLE SUBMITTAL

Project Title: Meridian Community Centre
Project Number:
Date: June 14th, 2019

***SUBCONTRACTOR*:**
(name & address) McGonigal Construction Ltd.
245 Fifth Avenue, Arnprior, Ontario K7S 3M3

Contact Name: Art Lytle -alytle@mcgonigalconstruction.ca
Telephone Number: (613) 623-3613

***SUPPLIER*:**
(name & address) Merkley Supply
100 Bayview Road
Ottawa, Ontario

Contract Name: Paul Mutter
Telephone Number: 613-728-2693

***MANUFACTURER*:**
(name & address) Dupont Canada ✓
PO Box 2200 Streetsville
Mississauga, Ontario

Contact Name:
Telephone Number: 905-821-3300

Specification Name: Masonry

Specification Section: 4200

Paragraph Number:

Product Submission: Commerical Tyvek Air Barrier ✓

DuPont Building Innovations
4417 Lancaster Pike
Chestnut Run Plaza 721
Wilmington, DE 19805
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March 2009

Product and System Specifications
DuPont™ Tyvek® CommercialWrap®

Specifier Note: The purpose of this guide specification is to assist the specifier in correctly specifying high-performance weather barrier products and execution. The specifier needs to edit these guide specifications to fit the needs of each specific project. Contact a DuPont™ Tyvek® Specialist to assist in appropriate product selections. Throughout the guide specification, there are Specifier Notes to assist in editing of the file.

References have been made within the text of the specification to CSI MasterFormat 2004 Section numbers and titles. The specifier needs to coordinate these numbers and titles with sections included for the specific project. Brackets [ ]; "AND/OR"; and "OR" have been used to indicate when a selection is required.

This guide is for commercial applications using a non-woven, spunbonded polyolefin sheet air and moisture barrier assembly. This high-performance barrier is non-perforated, without visible holes or voids, designed to help stop the passage of bulk water and airflow movement, yet it is vapor permeable. This weather barrier assembly offers a balance of properties and protection for the building envelope by providing a lightweight barrier that will resist wind, water, abrasion, tearing, puncturing, and UV exposure for up to 9 months.

This high performance weather barrier is specifically for above grade, vertical wall surfaces where the wall assembly may consist of any of the following: exterior gypsum sheathing, exterior plywood sheathing, oriented strand board (OSB) sheathing, stud walls with no sheathing and masonry.

SECTION 07 25 00
WEATHER BARRIERS
DuPont™ Tyvek® CommercialWrap®

PART 1 - GENERAL

1.1 SECTION INCLUDES

(Specifier Note: "Weather barrier assembly" has been used throughout the document. A weather barrier is a weather-resistant membrane for vertical building envelope protection that will maintain air/moisture resistance while maintaining moisture-vapor permeability. The assembly consists of the following four components.)

A. Weather barrier membrane (DuPont™ Tyvek® CommercialWrap®)
B. Seam Tape (DuPont™ Tyvek® Tape)
C. Flashing (DuPont™ FlexWrap™, DuPont™ FlexWrap™ NF, DuPont™ StraightFlash™, DuPont™ StraightFlash™ VF, and/or DuPont™ Thru-Wall Flashing)

D. Fasteners (DuPont™ Tyvek® Wrap Caps)

1.2 REFERENCES

A. ASTM International
   1. ASTM C920; Standard Specification for Elastomeric Joint Sealants
   2. ASTM C1193; Standard Guide for Use of Joint Sealants
   3. ASTM D882; Test Method for Tensile Properties of Thin Plastic Sheeting
   4. ASTM D1117; Standard Guide for Evaluating Non-woven Fabrics
   5. ASTM E84; Test Method for Surface Burning Characteristics of Building Materials
   6. ASTM E96; Test Method for Water Vapor Transmission of Materials
   7. ASTM E1677; Specification for Air Retarder Material or System for Framed Building Walls
   8. ASTM E2178; Test Method for Air Permeance of Building Materials
   9. ASTM E2357; Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

B. AATCC – American Association of Textile Chemists and Colorists
   1. Test Method 127 Water Resistance: Hydrostatic Pressure Test

C. TAPPI
   1. Test Method T-410; Grams of Paper and Paperboard (Weight per Unit Area)
   2. Test Method T-460; Air Resistance (Gurley Hill Method)

1.3 SUBMITTALS

(Specifier Note: When project is being submitted for USGBC LEED™ certification, contact a DuPont™ Tyvek® Specialist for assistance in determining how the use of DuPont™ Tyvek® CommercialWrap® can assist in obtaining points. ADD submittal requirements as required.)

A. Refer to Section [01 33 00 Submittal Procedures] [insert section number and title].

B. Product Data: Submit manufacturer current technical literature for each component.

C. Samples: Weather Barrier Membrane, minimum 8-1/2 inches by 11 inch.

D. Quality Assurance Submittals

(Specifier Note: DELETE Design Data, Test Report submittal requirements when proprietary specification is used and can be held. MAINTAIN Design Data, Test Report submittal requirement when other products may be submitted for substitution.)

   1. Design Data, Test Reports: Provide manufacturer test reports indicating product compliance with indicated requirements.
   2. Manufacturer Instructions: Provide manufacturer's written installation instructions.

(Specifier Note: Manufacturer field service reports are mandatory for projects where the DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is specified and recommended for all projects using DuPont™ Tyvek® CommercialWrap®. Requirement may be DELETED if DuPont Warranty is not specified.)

   3. Manufacturer's Field Service Reports: Provide site reports from authorized field service representative, indicating observation of weather barrier assembly installation.

E. Closeout Submittals

1. Refer to Section [01 78 00 Closeout Submittals] [insert section number and title].

(Specifier Note: If DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is not specified, DELETE warranty requirement below.)

2. Weather Barrier Warranty: Manufacturer's executed warranty form with authorized signatures and endorsements indicating date of Substantial Completion.

1.4 QUALITY ASSURANCE

A. Qualifications

1. Installer shall have experience with installation of commercial weather barrier assemblies under similar conditions.
2. Installation shall be in accordance with weather barrier manufacturer's installation guidelines and recommendations.
3. Source Limitations: Provide commercial weather barrier and accessory materials produced by single manufacturer.

B. Mock-up

(Specifier Note: Mock-ups are mandatory for projects where the DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is specified and recommended for all projects using DuPont™ Tyvek® CommercialWrap®. Requirement may be DELETED if DuPont Warranty is not specified. EDIT mock-up requirements for specific project.)

1. Install mock-up using approved weather barrier assembly including fasteners, flashing, tape and related accessories per manufacturer's current printed instructions and recommendations.
   a. Mock-up size: [10 feet by 10 feet] [insert size].
   b. Mock-up Substrate: Match wall assembly construction, including window opening.
   c. Mock-up may [not] remain as part of the work.

(Specifier Note: Visual inspection by manufacturer's designated representative is mandatory for projects where the DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is specified and recommended for all projects using DuPont™ Tyvek® CommercialWrap®. Requirement may be DELETED if DuPont Warranty is not specified.)

2. Contact manufacturer's designated representative prior to weather barrier assembly installation, to perform required mock-up visual inspection and analysis as required for warranty.

C. Pre-installation Meeting

1. Refer to Section [01 31 19 Project Meetings] [insert section number and title].

(Specifier Note: A pre-installation meeting is mandatory for projects where the DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is specified and recommended for all projects using DuPont™ Tyvek® CommercialWrap®. Requirement may be DELETED if DuPont Warranty is not specified.)

2. Hold a pre-installation conference, two weeks prior to start of weather barrier installation. Attendees shall include Contractor, Architect, Engineer, Installer, Owner's Representative, and Weather Barrier Manufacturer's Designated Representative.
3. Review all related project requirements and submittals, status of substrate work and preparation, areas of potential conflict and interface, availability of weather barrier assembly materials and

components, installer's training requirements, equipment, facilities and scaffolding, and coordinate methods, procedures and sequencing requirements for full and proper installation, integration and protection.

1.5 DELIVERY, STORAGE AND HANDLING

A. Refer to Section [01 60 00 Product Requirements] [insert section number and title].

B. Deliver weather barrier materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Store weather barrier materials as recommended by weather barrier manufacturer.

1.6 SCHEDULING

(Specifier Note: The preferred order of installation for DuPont™ Tyvek® CommercialWrap® is prior to the installation of windows and doors.)

A. Review requirements for sequencing of installation of weather barrier assembly with installation of windows, doors, louvers and flashings to provide a weather-tight barrier assembly.

B. Schedule installation of weather barrier materials and exterior cladding within nine months of weather barrier assembly installation.

1.7 WARRANTY

A. Refer to Section [01 78 36 Warranties] [insert section number and title].

(Special manufacturer warranty program - The DuPont™ Weatherization Products 10 Year Limited Product And Labor Warranty Program is project specific and requires pre-installation meetings and jobsite observations by the manufacturer. Include warranty language only when manufacturer's limited product and labor warranty program is to be used. The DuPont™ Weatherization Products 10 Year Limited Product And Labor Warranty Program is subject to use of manufacturer's recommended installation methods, required pre-construction meetings and observation visits during installation along with required submittal and post installation documentation process. Please refer to: www.construction.TYVEK.com for complete details on the DuPont™ Weatherization Products 10 Year Limited warranty programs.)

B. Special Warranty

1. Special weather-barrier manufacturer's warranty for weather barrier for a period of ten (10) years from date of purchase.
2. Pre-installation meetings and jobsite observations by weather barrier manufacturer for warranty are required.
3. Warranty Areas: [Describe specific areas of work protected and areas of work excluded as required by project conditions].

PART 2 - PRODUCTS

(Specifier Note: Product Information is proprietary to DuPont™ Tyvek® CommercialWrap®. If additional products are required for competitive procurement, contact DuPont Building Innovations for assistance.)

2.1 MANUFACTURER

A. DuPont; 4417 Lancaster Pike, Chestnut Run Plaza 728, Wilmington, DE 19805; 1-800-44-TYVEK (8-9835); http://www.construction.tyvek.com

2.2 MATERIALS

A. Basis of Design: spunbonded polyolefin, non-woven, non-perforated, weather barrier is based upon DuPont™ Tyvek® CommercialWrap® and related assembly components.

B. Performance Characteristics:

1. Air Penetration: 0.001 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2178. Type I per ASTM E1677. ≤0.04 cfm/ft² at 75 Pa, when tested in accordance with ASTM E2357
2. Water Vapor Transmission: 28 perms, when tested in accordance with ASTM E96, Method B.
3. Water Penetration Resistance: 280 cm when tested in accordance with AATCC Test Method 127.
4. Basis Weight: 2.7 oz/yd², when tested in accordance with TAPPI Test Method T-410.
5. Air Resistance: Air infiltration at >1500 seconds, when tested in accordance with TAPPI Test Method T-460.
6. Tensile Strength: 38/35 lbs/in., when tested in accordance with ASTM D882, Method A.
7. Tear Resistance: 12/10 lbs., when tested in accordance with ASTM D1117.
8. Surface Burning Characteristics: Class A, when tested in accordance with ASTM E 84. Flame Spread: 10, Smoke Developed: 10.

2.3 ACCESSORIES

A. Seam Tape: 3 inch wide, DuPont™ Tyvek® Tape for commercial applications.

B. Fasteners:

(Specifier Note: Fasteners are dependent upon substrate construction. More than one type of fastener may be required on a single project. REVIEW construction conditions and DELETE fasteners that are unnecessary.)

1. (Specifier Note: Steel Frame Construction) DuPont™ Tyvek® Wrap Cap Screws, as distributed by DuPont: 1-5/8 inch rust resistant screw with 2-inch diameter plastic cap or manufacturer approved 1-1/4" or 2" metal gasketed washer

AND/OR

2. (Specifier Note: Wood Frame Construction)
   Tyvek® Wrap Caps, as distributed by DuPont: #4 nails with large 1-inch plastic cap fasteners, or 1-inch plastic cap staples with leg length sufficient to achieve a minimum penetration of 5/8-inch into the wood stud.

AND/OR

3. (Specifier Note: Masonry Construction)
   Masonry tap-con fasteners with Tyvek® Wrap Caps as distributed by DuPont: 2-inch diameter

plastic cap fasteners.

C. Sealants

(Specifier Note: Sealants compatible with weather barrier assembly may be specified in this section or in Division 07 sealants section. DELETE paragraphs 2 and 3 when sealants are specified in Division 07.)

1. Refer to Section [07 92 00 Joint Sealants] [insert section number and title].

OR

2. Provide sealants that comply with ASTM C920, elastomeric polymer sealant to maintain watertight conditions.

(Specifier Note: Sealant products listed have been tested for compatibility and intermittent contact with DuPont weather barrier materials. EDIT for specific project as appropriate when sealants are specified within this section.)

3. Products:
   a. DuPont™ Commercial Sealant
   c. DuPont™ Residential Sealant
   b. Sealants recommended by the weather barrier manufacturer.

D. Adhesives:

1. Provide adhesive recommended by weather barrier manufacturer.

(Specifier Note: Products listed below are only recommendations for inclusion when required and should be EDITED for specific project.)

2. Products:
   a. Liquid Nails® LN-109
   b. Denso Butyl Liquid
   c. 3M High Strength 90

(Specifier Note: SIA product meets California VOC requirements.)

   d. SIA 655
   e. Adhesives recommend by the weather barrier manufacturer.

E. Primers:

1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.

(Specifier Note: Products listed below are only recommendations for inclusion when required and should be EDITED for specific project.)

2. Products:
   a. 3M High Strength 90
   b. Denso Butyl Spray

(Specifier Note: SIA product meets California VOC requirements.)

   c. SIA 655
   d. Permagrip 105

e. ITW TACC Sta' Put SPH

f. Primers recommended by the flashing manufacturer

F. Flashing

(Specifier Note: Flashing is dependent upon construction conditions. DELETE flashing products that are unnecessary and inappropriate for specific project.)

1. DuPont™ FlexWrap™, as distributed by DuPont: flexible membrane flashing materials for window openings and penetrations.

AND/OR

2. DuPont™ FlexWrap™ NF, as distributed by DuPont: flexible membrane flashing materials for window openings and penetrations.

AND/OR

3. DuPont™ StraightFlash™, as distributed by DuPont: straight flashing membrane materials for flashing windows and doors and sealing penetrations such as masonry ties, etc.

AND/OR

4. DuPont™ StraightFlash™ VF, as distributed by DuPont: dual-sided straight flashing membrane materials for brick mold and non-flanged windows and doors.

AND/OR

5. DuPont™ Thru-Wall Surface Adhered Membrane with Integrated Drip Edge: Thru-Wall flashing membrane materials for flashing at changes in direction or elevation (shelf angles, foundations, etc.) and at transitions between different assembly materials.

AND/OR

6. Preformed Inside and Outside Corners and End Dams as distributed by DuPont: Preformed three-dimensional shapes to complete the flashing system used in conjunction with DuPont™ Thru-Wall Flashing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify substrate and surface conditions are in accordance with weather barrier manufacturer recommended tolerances prior to installation of weather barrier and accessories.

3.2 INSTALLATION – WEATHER BARRIER

A. Install weather barrier over exterior face of exterior wall substrate in accordance with manufacturer recommendations.

B. Install weather barrier prior to installation of windows and doors.

C. Start weather barrier installation at a building corner, leaving 6-12 inches of weather barrier extended beyond corner to overlap.

D. Install weather barrier in a horizontal manner starting at the lower portion of the wall surface with subsequent layers installed in a shingling manner to overlap lower layers. Maintain weather barrier plumb and level.

E. Sill Plate Interface: Extend lower edge of weather barrier over sill plate interface 3-6 inches. Secure to foundation with elastomeric sealant as recommended by weather barrier manufacturer.

F. Window and Door Openings: Extend weather barrier completely over openings.

G. Overlap weather barrier

1. Exterior corners: minimum 12 inches.
2. Seams: minimum 6 inches.

H. Weather Barrier Attachment:

(Specifier Note: Attachment method is dependent upon substrate construction. DELETE methods that are unnecessary and inappropriate for specific project.)

1. (Specifier Note: Steel or Wood Frame Construction) Attach weather barrier to studs through exterior sheathing. Secure using weather barrier manufacturer recommended fasteners, space 12 -18 inches vertically on center along stud line, and 24 inch on center, maximum horizontally.

AND/OR

2. (Specifier Note: Masonry Construction) Attach weather barrier to masonry. Secure using weather barrier manufacturer recommended fasteners, spaced 12-18 inches vertically on center and 24 inches maximum horizontally. Weather barrier may be temporarily attached to masonry using recommended adhesive, placed in vertical strips spaced 24 inches on center, when coordinated on the project site.

(Specifier Note: Cladding anchors, supports and fasteners will likely be specified in the section including the cladding. COORDINATE the inclusion of the following paragraph in the appropriate specification section. With weather barrier manufacturer's approval cladding anchors can be used to fasten the weather barrier.)

I. Apply 4 inch by 7 inch piece of DuPont™ StraightFlash™ or weather barrier manufacturer approved alternate to weather barrier membrane prior to the installation cladding anchors.

3.3 SEAMING

A. Seal seams of weather barrier with seam tape at all vertical and horizontal overlapping seams.

B. Seal any tears or cuts as recommended by weather barrier manufacturer.

(Specifier Note: Opening preparation and flashing installation is dependent upon the construction of the opening and construction of the window. DELETE execution requirements that are not appropriate for specific project. COORDINATE proper design and detailing at windows, doors and other openings or intersections for proper flashing in accordance with window manufacturer guidelines, industry standards and best flashing and waterproofing practices.)

(Specifier Note: MAINTAIN the following opening preparation and flashing articles when used in conjunction with non-flanged windows.)

3.4 OPENING PREPARATION (for use with non-flanged windows – all cladding types)

A. Flush cut weather barrier at edge of sheathing around full perimeter of opening.

B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 8 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

3.5 FLASHING (for use with non-flanged windows – all cladding types)

(Specifier Note: DuPont recommends the use of the 7-inch wide DuPont™ FlexWrap™ with 2 by 4 framing and 9-inch wide DuPont™ FlexWrap™ with 2 by 6 framing.)

A. Cut [7-inch] [9-inch] wide DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF a minimum of 12 inches longer than width of sill rough opening. Apply primer as required by manufacturer.

B. Cover horizontal sill by aligning DuPont™ FlexWrap™ edge with inside edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working in along the sill before adhering up the jambs.

C. Fan DuPont™ FlexWrap™ at bottom corners onto face of wall. Firmly press in place. Mechanically fasten fanned edges. Mechanical fastening is not required for DuPont™ FlexWrap™ NF.

D. Apply 9-inch wide strips of DuPont™ StraightFlash™ at jambs. Align flashing with interior edge of jamb framing. Start DuPont™ StraightFlash™ at head of opening and lap sill flashing down to the sill.

E. Spray-apply primer to top 6 inches of jambs and exposed sheathing.

F. Install DuPont™ FlexWrap™ DuPont™ FlexWrap™ NF at opening head using same installation procedures used at sill. Overlap jamb flashing a minimum of 2 inches.

G. Coordinate flashing with window installation.

H. On exterior, install backer-rod in joint between window frame and flashed rough framing. Apply sealant at jambs and head, leaving sill unsealed. Apply sealants in accordance with sealant manufacturer's instructions and ASTM C 1193.

I. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont™ StraightFlash™ over the 45-degree seams.

J. Tape top of window in accordance with manufacturer recommendations.

K. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C 1193.

(Specifier Note: MAINTAIN the following open preparation and flashing articles when used in conjunction with flanged windows and doors. See further information on using DuPont™ StraightFlash™ VF with non-flanged or brick mold windows or doors as required.)

3.6 OPENING PREPARATION (for use with flanged windows)

A. Cut weather barrier in an "I-cut" pattern. A modified I-cut is also acceptable.
   1. Cut weather barrier horizontally along the bottom and top of the window opening.
   2. From the top center of the window opening, cut weather barrier vertically down to the sill..
   3. Fold side and bottom weather barrier flaps into window opening and fasten.

B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 8 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.

3.7 FLASHING (for use with flanged windows)

(Specifier Note: DuPont recommends the use of the 7-inch wide DuPont™ FlexWrap™ with 2 by 4 framing and 9-inch wide DuPont™ FlexWrap™ with 2 by 6 framing.)

A. Cut [7-inch] [9-inch] wide DuPont™ FlexWrap™ or DuPont™ FlexWrap™ NF a minimum of 12 inches longer than width of sill rough opening.

B. Cover horizontal sill by aligning DuPont™ FlexWrap™ edge with inside edge of sill. Adhere to rough opening across sill and up jambs a minimum of 6 inches. Secure flashing tightly into corners by working in along the sill before adhering up the jambs.

C. Fan DuPont™ FlexWrap™ at bottom corners onto face of wall. Firmly press in place. Mechanically fasten fanned edges. Mechanical fastening is not required for DuPont™ FlexWrap™ NF.

D. On exterior, apply continuous bead of sealant to wall or backside of window mounting flange across jambs and head. Do not apply sealant across sill.

E. Install window according to manufacturer's instructions.

F. Apply 4-inch wide strips of DuPont™ StraightFlash™ at jambs overlapping entire mounting flange. Extend jamb flashing 1-inch above top of rough opening and below bottom edge of sill flashing.

G. Apply 4-inch wide strip of DuPont™ StraightFlash™ as head flashing overlapping the mounting flange. Head flashing should extend beyond outside edges of both jamb flashings.

H. Position weather barrier head flap across head flashing. Adhere using 4-inch wide DuPont™ StraightFlash™ over the 45-degree seams.

I. Tape head flap in accordance with manufacturer recommendations.

J. On interior, install backer rod in joint between frame of window and flashed rough framing. Apply sealant around entire window to create air seal. Apply sealant in accordance with sealant manufacturer's instructions and ASTM C 1193.

3.8 THRU-WALL FLASHING INSTALLATION

A. Apply primer per manufacturer's written instructions.

B. Install preformed corners and end dams bedded in sealant in appropriate locations along wall.

C. Starting at a corner, remove release sheet and apply membrane to primed surfaces in lengths of 8 to 10 feet.

D. Extend membrane through wall and leave ¼ inch minimum exposed to form drip edge.

E. Roll flashing into place. Ensure continuous and direct contact with substrate.

F. Lap ends and overlap preformed corners 4 inches minimum. Seal all laps with sealant.

(Specifier Note: DELETE paragraph below if a metal drip edge is not required.)

G. Trim exterior edge of membrane 1-inch and secure metal drip edge per manufacturer's written instructions.

(Specifier Note: DELETE option below when not required for project.)

H. Terminate membrane on vertical wall. [Terminate into reglet, counterflashing or with termination bar.]

I. Apply sealant bead at each termination.

(Specifier Note: DELETE remaining installation paragraphs below not required for project. Coordinate with accessories named in Part 2 above.)

3.9 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT BASE OF WALL

A. Overlap thru-wall flashing with weather barrier by 6-inches.
B. Mechanically fasten bottom of weather barrier through top of thru-wall flashing.
C. Seal vertical and horizontal seams with tape or sealing membrane.

3.10 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT SHELF ANGLE

A. Seal weather barrier to bottom of shelf angle with sealing membrane.
B. Apply thru-wall flashing to top of shelf angle. Overlap thru-wall flashing with weather barrier by 6-inches.
C. Seal bottom of weather barrier to thru-wall flashing with tape or sealing membrane.

3.11 THRU-WALL FLASHING / WEATHER BARRIER INTERFACE AT WINDOW HEAD

A. Cut flap in weather barrier at window head.
B. Prime exposed sheathing.
C. Install lintel as required. Verify end dams extend 4 inches minimum beyond opening.
D. Install end dams bedded in sealant.
E. Adhere 2 inches minimum thru-wall flashing to wall sheathing. Overlap lintel with thru-wall flashing and extend ¼ inch minimum beyond outside edge of lintel to form drip edge.
F. Apply sealant along thru-wall flashing edges.
G. Fold weather barrier flap back into place and tape bottom edge to thru-wall flashing.
H. Tape diagonal cuts of weather barrier.
I. Secure weather barrier flap with fasteners.

3.12 FIELD QUALITY CONTROL

(Specifier Note: Field observation by a manufacturer designated representative is mandatory for projects where the DuPont™ Weatherization Products 10 Year Limited Product and Labor Warranty is specified and recommended for all commercial projects using DuPont™ Tyvek® CommercialWrap®. Requirement may be DELETED if DuPont Warranty is not specified.)

A. Notify manufacturer's designated representative to obtain [required] periodic observations of weather barrier assembly installation.

3.14 PROTECTION

A. Protect installed weather barrier from damage.

END OF SECTION

DISCLAIMER:

DuPont Building Innovations Guide Specifications have been written as an aid to the professionally qualified specifier and design professional. The use of this guideline specification requires the sole professional judgment and expertise of the qualified specifier and design professional to adapt the information to the specific needs for the building owner and the project, to coordinate with their construction document process, and to meet all the

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