PROJECT NAME

200 MATHEWS STREET, CARNEGIE BUILDING

STAFF

Karen McWilliams, Historic Preservation Manager

PROJECT INFORMATION

PROJECT DESCRIPTION: This is a request for design review to replace the gutters and downspouts on

the Carnegie Building with similarly designed copper-clad parts; and remove

and replace the flat roof portions of the building's roof with new TPO

membrane.

OWNER/APPLICANT: City of Fort Collins/Mark McLean, Sr. Facilities Project Manager, Operation

Services

DECISION: Staff approves this request for work to the Carnegie Building's roof, gutters, and

downspouts, as described, finding that the work meets the Standards in Municipal Code 14-53(b)(1), including the applicable Secretary of the Interior

Standards for Rehabilitation.

EXECUTIVE SUMMARY

The importance of the Carnegie Building as a Fort Collins landmark was recognized in 1978, when Council adopted Resolution 78-1 designating the Carnegie Building and other property as landmarks. As designations are required to be done by ordinance, the resolution was repealed and replaced with Ordinance No. 082, 1985, confirming the property's landmark status.

The applicant is requesting approval to replace the existing TPO membrane roofing on the flat sections of the building's roof with new TPO membrane; and replace the copper gutters and downspouts with new copper gutters and downspouts, with matching or similar design to the existing. The copper gutters and downspouts will not be treated (which would artificially hasten their "aged" appearance but would also reduce their longevity). Additionally, the historic scupper on the west elevation near the entry, and the historic clay roof tiles will be retained.

STAFF'S ROLE

Pursuant to Municipal Code Chapter 14, Article IV, Section 14-53, historic preservation staff may review design review applications for compliance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* and applicable City standards adopted by ordinance for historic reviews; and issue a Certificate of Appropriateness for work meeting the standards.

BACKGROUND

The Fort Collins Museum is a monumental Italian Renaissance or Renaissance Revival Style building constructed of dressed red sandstone blocks quarried from the famous Stout quarry west of the city. Constructed in 1903-04, the original portion of the building is the westernmost wing of the present structure. According to Evadene Swanson, the original design, like many Carnegie Libraries, featured a dome that was removed in 1932. In the late 1930s a substantial addition was made to the east side of the original library building, creating space for an auditorium and other facilities.

The existing sloped roofs are comprised of historic overlapping, red-colored clay tile and clay tile ridge caps; the roof's flat and nearly flat areas, over the one-story vestibule on the north elevation of the rear wing and in the crickets where the slopes intersect, have been roofed with modern TPO membrane.

STAFF EVALUATION OF APPLICABLE REVIEW CRITERIA:

	Summary of Code Requirement and Analysis	
Applicable Code Standards	The Secretary of the Interior's Standards recognizes four Treatments for historic resources: Preservation, Rehabilitation, Restoration and Reconstruction. The proposed work falls under the Rehabilitation Treatment. The replacement of the non-historic membrane roof and the historic copper gutters and downspouts are related to the building's continued maintenance.	Does Work Comply with Standard?
SOI Rehabilitation Standard #1	A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships; This Standard is not applicable for this application.	N/A
SOI Rehabilitation Standard #2	The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.	Complies
Standard II 2	Staff finds that the proposed work will not noticeably alter distinctive features and spaces that characterize the property. The non-historic membrane roof is already existing and will be replaced with similar TPO membrane material. The areas of membrane roof are not visible from the ground.	
	The copper gutters and downspouts are a distinctive character-defining material. Replacement with new copper gutters and downspouts will retain the historic character of this material.	
SOI Rehabilitation Standard #3	Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.	N/A
	This Standard is not applicable for this application.	

SOI Rehabilitation	Changes to a property that have acquired historic significance in their own right will be retained and preserved.	N/A
Standard #4	This Standard is not applicable for this application.	
SOI Rehabilitation	Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.	Complies
Standard #5	Staff finds that the proposed work meets this standard. Distinctive materials, features, finishes and craftsmanship on this building include the reddish clay roofing tiles; the copper gutters and downspouts; and the shapes and designs of the gutters, downspouts, and scupper. These distinctive characteristics are being preserved. The historic clay roof tiles and copper scupper will be retained, and the gutters and downspouts are being replaced with new copper gutters and downspouts designed to closely match the existing.	
SOI Rehabilitation Standard #6	Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.	Complies
	The new gutters and downspouts will closely match the old in design, texture, and materials. As the copper will be untreated, the material will develop its characteristic verdigris over time.	
SOI Rehabilitation Standard #7	Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.	N/A
	This Standard is not applicable for this application.	
SOI Rehabilitation	Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.	N/A
Standard #8	This Standard is not applicable for this application.	
SOI Rehabilitation Standard #9	New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.	N/A
	This Standard is not applicable for this application. Work is maintenance; no additions, exterior alterations, or new construction is proposed.	
SOI Rehabilitation	New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.	N/A
Standard #10	This Standard is not applicable for this application.	



Design Review Application Historic Preservation Division

Fill this form out for all applications regarding designated historic buildings within the city limits of the City of Fort Collins. Review is required for these properties under Chapter 14, Article IV of the Fort Collins Municipal Code.

Applicant Information

Applicant's Name	Daytime Phone	Evening Phone
Mailing Address (for receiving application-related correspondence)		State Zip Code
Property Information (put N/A if owner is applicant)		
Owner's Name	Daytime Phone	Evening Phone
Mailing Address (for receiving application-related correspondence)		State Zip Code
Project Description Provide an overview of your project. Summarize work elements, schedul necessary to explain your project.	le of completion, a	nd other information as
The following attachments are REQUIRED: Complete Application for Design Review Detailed Scope of Work (and project plans, if available) Color photos of existing conditions	all of checklist pages of this of Detailed scop	e of work should urements of existing

Please note: if the proposal includes partial or full demolition of an existing building or structure, a separate demolition application will need to be approved.

Additional documentation may be required to adequately depict the project, such as plans, elevations, window study, or mortar analysis. If there is insufficient documentation on the property, the applicant may be required to submit an intensive-level survey form (at the applicant's expense).

Detail of Proposed Rehabilitation Work (*Required)

If your project includes multiple features (e.g. roof repair and foundation repair), you must describe each feature separately and provide photographs and other information on each feature.

Feature A Name:	
Describe property feature and its condition:	Describe proposed work on feature:
Feature B Name:	
Describe property feature and its condition:	Describe proposed work on feature:

Use Additional Worksheets as needed.

The following items must be submitted with this completed application. Digital submittals preferred for photographs, and for other items where possible. ☐ At least one current photo for each side of the house. Photo files or prints shall be named/labeled with applicant name and elevation. For example, smitheast.jpg, smithwest.jpg, etc. If submitted as prints, photos shall be labeled Photos for each feature as described in the section "Detail of Proposed Rehabilitation Work". Photo files or prints shall be named or labeled with applicant name and feature letter. For example, smitha1.jpg, smitha2.jpg, smithb.jpg, smithc.jpg, etc. Depending on the nature of the project, one or more of the following items shall be submitted. Your contractor should provide these items to you for attachment to this loan application. ☐ Drawing with dimensions. Product specification sheet(s). Description of materials included in the proposed work. Color sample(s) or chip(s) of all proposed paint colors. □ **Partial or full demolition** is a part of this project. Partial demolition could include scopes such as taking off existing rear porches to create space for a new addition or removing an existing wall or demolishing a roof. If you are taking away pieces of the existing residence, you are likely undergoing some partial demolition.

Required Additional information



Date















Flat Roof to be removed and replaced

From: Mark McLean
To: Karen McWilliams

Subject: RE: 42510th Street - Romero House Hail repairs

Date: Monday, February 8, 2021 2:18:33 PM

Attachments: image005.png

image001.png

Yes, It is a unique situation that required that scupper on the west side.

Thank you,

Mark McLean
City of Fort Collins
Facilities Project Manager
P: 970-221-6273
mmclean@fcgov.com

To submit a work request use <u>iServiceDesk</u>

For after hour City of Fort Collins facility emergencies please call 970-221-6277



From: Karen McWilliams < KMCWILLIAMS@fcgov.com>

Sent: Monday, February 8, 2021 2:13 PM **To:** Mark McLean <mmclean@fcgov.com>

Subject: RE: 42510th Street - Romero House Hail repairs

Is there only the one copper scupper?

Karen McWilliams
Historic Preservation Manager | City of Fort Collins
kmcwilliams@fcgov.com | 970.224.6078

Tell us about our service, we want to know!

COVID19 Resources

For all residents: https://www.fcgov.com/eps/coronavirus

For businesses: https://www.fcgov.com/business/
Want to help: https://www.fcgov.com/volunteer/

Recursos COVID-19

Para integrantes de la comunidad: https://www.fcgov.com/eps/coronavirus

Para empresas: https://www.fcgov.com/business/

¿Quieres ayudar o necesitas ayuda? https://www.fcgov.com/neighborhoodservices/adopt

Recursos de United Way: https://uwaylc.org/

From: Mark McLean < mmclean@fcgov.com > Sent: Monday, February 8, 2021 1:34 PM

To: Karen McWilliams < KMCWILLIAMS@fcgov.com Subject: RE: 42510th Street - Romero House Hail repairs

Keren – For Romer House we removed the gutter and downspout scope completely from the project. For the Carnegie building we are proposing to replace all of the gutters and downspouts on the building. The only exception that I can see would be the box on the west side that drains the low roof above the entry, I would like to leave this box in place as I don't think we could easily match a replacement; we would replace the downspout out of the bottom of this box.

Is that what you were looking for? Thanks!

Thank you,

Mark McLean
City of Fort Collins
Facilities Project Manager
P: 970-221-6273
mmclean@fcgov.com

To submit a work request use <u>iServiceDesk</u>

For after hour City of Fort Collins facility emergencies please call 970-221-6277



From: Karen McWilliams < KMCWILLIAMS@fcgov.com>

Sent: Monday, February 8, 2021 1:13 PM **To:** Mark McLean < mmclean@fcgov.com>

Subject: RE: 42510th Street - Romero House Hail repairs

Importance: High

Hi, Mark – I thought I knew the answers, but in reviewing our correspondence I realized that I'm not sure if you are now proposing to replace all of the gutters and downspouts, or only portions? For instance, what about the historic scuppers – replace or keep?

Karen McWilliams
Historic Preservation Manager | City of Fort Collins
kmcwilliams@fcgov.com | 970.224.6078

Tell us about our service, we want to know!

COVID19 Resources

For all residents: https://www.fcgov.com/eps/coronavirus

For businesses: https://www.fcgov.com/business/
Want to help: https://www.fcgov.com/volunteer/

Recursos COVID-19

Para integrantes de la comunidad: https://www.fcgov.com/eps/coronavirus

Para empresas: https://www.fcgov.com/business/

¿Quieres ayudar o necesitas ayuda? https://www.fcgov.com/neighborhoodservices/adopt

Recursos de United Way: https://uwaylc.org/

From: Mark McLean < mmclean@fcgov.com > Sent: Monday, February 8, 2021 9:28 AM

To: Karen McWilliams < KMCWILLIAMS@fcgov.com Subject: RE: 42510th Street - Romero House Hail repairs

Karen – Is there anyway you could get me an update today? I have to provide an update tomorrow, Thank You

Thank you,

Mark McLean
City of Fort Collins
Facilities Project Manager
P: 970-221-6273
mmclean@fcgov.com

To submit a work request use <u>iServiceDesk</u>

For after hour City of Fort Collins facility emergencies please call 970-221-6277



From: Karen McWilliams < KMCWILLIAMS@fcgov.com>

Sent: Monday, February 1, 2021 7:44 PM **To:** Mark McLean < mmclean@fcgov.com>

Subject: RE: 42510th Street - Romero House Hail repairs

Thanks, Mark! I'll get on these two applications, and have an answer for you by the end of the week.

- Karen

Karen McWilliams

Historic Preservation Manager | City of Fort Collins

kmcwilliams@fcgov.com | 970.224.6078

Tell us about our service, we want to know!

COVID19 Resources

For all residents: https://www.fcgov.com/eps/coronavirus

For businesses: https://www.fcgov.com/business/ Want to help: https://www.fcgov.com/business/

Recursos COVID-19

Para integrantes de la comunidad: https://www.fcgov.com/eps/coronavirus

Para empresas: https://www.fcgov.com/business/

¿Quieres ayudar o necesitas ayuda? https://www.fcgov.com/neighborhoodservices/adopt

Recursos de United Way: https://uwaylc.org/

From: Mark McLean < mmclean@fcgov.com > Sent: Monday, February 1, 2021 5:33 PM

To: Karen McWilliams < KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com KMCWILLIAMS@fcgov.com <a href="mailto:Su

Karen – Please find the attached COA application & Supporting photos for the repairs we are proposing, Please take a look and let me know if you need anything else or have any comments. Thank You

Thank you,

Mark McLean
City of Fort Collins
Facilities Project Manager
P: 970-221-6273
mmclean@fcgov.com

To submit a work request use <u>iServiceDesk</u>

For after hour City of Fort Collins facility emergencies please call 970-221-6277





October 29, 2020

City of Fort Collins Attn: Mark McLean

Dear Mr. McLean,

This letter is a summary to verify the scope of work and that the roofing system will be installed according to the contract documents including plans, specs and addendums as per approved submittals. SRC is installing the system as per the documents and installing the system as per the details in the drawings. We want to clarify the system as follows;

Roofing Proposal Includes: for the reroofing Carnegie Building project at 200 Mathews in Fort Collins CO.

Flat Roofing

- 1. Remove the existing roof systems to the roof deck; disposal included
- 2. Install ¼"/ft. taper insulation at upper roof
- 3. Install crickets at between drains at lower roofs
- 4. Install R-30 at lower roofs
- 5. Install ¼" dens deck cover board
- 6. Mechanically attach 60mil Tan membrane
- 7. All associated 60mil Tan flashings for proper installation
- 8. Provide the roofing manufacturer 20-year total system warranty which includes labor and material

Roofing Sheet Metal

- 9. Install wood blocking as needed along the perimeter
- 10. Install fabricated 24ga prefinished metal drip edge on single cleat at the flat roofing areas only
- 11. Install all associated metal termination flashings for proper roof installation at the flat roofing areas only
- 12. Color to be selected off standard color chart
- 13. Provide the sheet metal manufacturer 20-year paint finish warranty
- 14. Install new copper 6" gutters and 3"x4" copper downspouts at the same locations as existing

Misc.:

- 15. Excludes custom tiles and new tiles
- 16. City Permit
- 17. Provide SRC's 2-year workmanship warranty

<u>Exclusions</u>: Temporary protections outside of defined work area and none inside of the building, tile reroofing as noted in the allowance, modify existing tiles, interior protections, raising units or curbs, interior work, custom colors, painting, snow/ice/water removal, bonds, taxes, drains, vents, mechanical or electrical work, framing, carpentry, masonry, access ladders or roof hatches, anything not explicitly outlined in the above scope of work



Considerations:

- 18. Tile allowance; some of the existing tile will need to be removed to install the new flat roofing system. Great care will be used to remove and reinstall the tiles but, due to the age of the tiles, some may crack or break. Please carry approx. \$2,800 to replace the roofing tiles associated with the flat roofing work only. If this work is needed, it will be documented on a time and material bases not to exceed this budget amount in item 17.
 - a. Field Tile Unit Pricing which includes labor and materials: \$97.00 each
 - b. Ridge Tile Unit Pricing which includes labor and materials: \$125.00 each
 - c. 3-Way Transitions Tile Unit Pricing which includes labor and materials: \$590.00 each
- 19. After demolition if the roof decking needs to be replaced add \$3.95 per square foot. We'll notify you immediately if this condition is discovered.

Copper pricing changes daily and is subject to change. This Proposal expires thirty (30) days after the date stated above unless otherwise agreed if not earlier withdrawn.

SRC Team Direct Contact Info:

Zack Stanevich, Project Manager, 970-290-5393 Nathan Lopez, Operations Manager, 970-685-8655 Aimee Ledall, Project Coordinator, 970-290-5393 Jordyn Kirkpatrick, Office Manager, 970-460-0204 Joe Sandoval, Flat Roofing Superintendent, 970-685-8662 Jon Johnson, Sheet Metal Superintendent, 970-685-1763

Thanks for the opportunity to create a proposal and we would like to work with you on this project. If you have any questions please feel free to contact us at any time.

Thank you

Zack Stanevich Manager

zack@SelectRoofingContractors.com



ROOFING WARRANTY

Building Owner: SRC 2-year workmanship Term:

Building Name: Type of Roof:
Building Address: No. of Squares:

Date of Completion: Date of Expiration:

Select Roofing Contractors, LLC, (hereinafter "SRC") hereby warrants, subject to the terms and conditions set forth herein, that for a period of ______ years from the date of completion, SRC will, free of charge to the Owner, make repairs to leaks in the roofing and flashing installed by SRC resulting from defects in workmanship applied by or through SRC. SRC shall, within the warranty period and during normal working hours, inspect and furnish the labor and materials to repair roofing leaks covered under this Warranty at no cost to Owner.

This Warranty is made under and subject to the following terms and conditions:

- 1. In order for this Warranty to be effective, the Owner must first notify SRC of any repairs required under this Warranty. Notice may be given orally, but in order to pursue any claim that SRC has not honored this Warranty, notification of a leak must be given to SRC in writing at the address shown below within five (5) days after a leak is experienced. SRC shall make repairs as soon as practicable after notification.
- 2. This Warranty does not extend to conditions caused by, and SRC shall not be responsible for, leaks caused by (1) abuse, misuse, vandalism, lack of maintenance, accident or negligence in maintaining the roof; (2) lightning, hail, windstorm, hurricane, earthquake, thermal shock or other acts of God; (3) other building components, including cracking, building movement, settlement, deflection of roof deck, dry rot, deterioration of walls, water entry through masonry or other building components, and defects in the materials used as a base under the roof; (4) faulty vents, equipment supports, and other penetrations of the roof work and edge conditions, unless such work was performed by SRC; (5) service to or maintenance of any roof top equipment or traffic of any nature on the roof; (6) acts or omissions of other trades or contractors; (7) movement of metal work; (8) ponding of water; (9) discharge of oils, greases, solvents or chemicals; (10) damage caused by termites, insects, birds or animals; (11) penetration of the roofing from beneath by nails or other fasteners; or (12) blockage of roof drains or gutters. If, during the term of this warranty, the subject property is exposed to tornadoes, hurricanes, or earthquakes, the warranty will be void and cancelled.
- 3. No work shall be done on said roof, including, but without limitation, openings made for flues, vents, drains, sign braces, railings, or other equipment fastened to or set on the roof, and no repairs or alterations shall be made to the roof or flashings, unless SRC shall first be notified and be given the opportunity, at the expense of the Owner, to make the necessary roofing application thereto. Failure to observe this condition shall render this Warranty null and void with respect to any area of the roof affected thereby.

- 4. SRC is not liable in any respect for any damage to the Owner's building, or any components or contents thereof, mold, mildew or interruption of any business conducted in the building. Owner should inspect ceilings and overhangs periodically for signs of leakage.
- 5. This Warranty is intended solely for the benefit of the Owner named above and is not transferable or assignable by the Owner without the express written consent of SRC.
- 6. This Warranty shall not be effective unless SRC receives full payment for installation, repairs, or service in connection with the roofing system covered by this Warranty. If SRC is called upon to investigate a reported leak and the condition is determined not to be covered under this warranty, Owner will compensate SRC for repairs, if any, and time expended by SRC.
- 7. SRC's obligation to make repairs to leaks resulting from a deficiency in workmanship during the term of this Warranty is its sole and exclusive obligation to Owner and Owner's exclusive remedy against SRC. This Warranty is not a maintenance contract. Upon expiration of the Warranty, SRC shall have no further obligation. Irrespective of the duration of this Warranty, the obligation of the SRC and surety pursuant to any bonds that may have been issued in connection with roof construction shall terminate no later than one year from the Date of Completion.
- 8. Any claim alleging a breach of this Warranty against SRC shall be resolved through arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association or through such other neutral organization as the parties may agree and must be initiated no later than one year after the claim arose and in no event later than one year after expiration of this warranty.

SELECT ROOFING CONTRACTORS, LLC., SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY IS GIVEN AND ACCEPTED IN LIEU OF ALL OTHER LIABILITY OR WARRANTIES ON THE PART OF SELECT ROOFING CONTRACTORS, LLC. EXPRESS OR IMPLIED, IN FACT OR IN LAW. ALL IMPLIED WARRANTIES AND SPECIFICALLY THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED AND DISCLAIMED.

MANAGER
SELECT ROOFING CONTRACTORS, LLC.

VERSICO TOTAL ROOFING SYSTEM WARRANTY

VSW-1 Rev 01/15

Versico, a division of Carlisle Construction Materials Incorporated 4. This Warranty shall be null and void if any of the following shall occur: (Versico), warrants to the Building Owner (Owner) of the building described below, that subject to the terms, conditions, and limitations stated in this Authorized Roofing Contractor, there are any alterations or repairs made on warranty, Versico will repair any leak in the Versico Total Roofing System (Versico Total Roofing System) installed by a Versico Authorized Roofing Contractor for a period of years commencing with the date of Versico's acceptance of the Versico Total Roofing System installation. However, in no event shall Versico's obligations extend beyond years subsequent to the date of substantial completion of the Versico Total Roofing System. See below roof, said maintenance to include, but not be limited to, those items listed on for exact date of warranty expiration.

The Versico Total Roofing System is defined as the following Versico brand Materials: Membrane, Flashings, Adhesives and Sealants, Insulation, Cover Boards, Fasteners, Fastener Plates, Fastening Bars, Metal Work, Insulation Adhesives, and any other Versico brand products utilized in this

TERMS, CONDITIONS, LIMITATIONS

- 1. Owner shall provide Versico with written notice via letter, fax or email within thirty (30) days of the discovery of any leak in the Versico Total Roofing System. Owner should send written notice of a leak to Versico's Warranty Services Department at the address set forth at the bottom of this warranty. By so notifying Versico, the Owner authorizes Versico or its designee to investigate the cause of the leak. Should the investigation reveal the cause of the leak to be outside the scope of this Warranty, investigation and repair costs for this service shall be paid by the Owner.
- If, upon inspection, Versico determines that the leak is caused by defects in the Versico Total Roofing System's materials, or workmanship of the Versico Authorized Roofing Contractor in installing the same, Owner's remedies and Versico's liability shall be limited to Versico's repair of the leak.
- 3. This Warranty shall not be applicable if, upon Versico's inspection,
- Versico determines that any of the following has occurred:

 (a) The Versico Total Roofing System is damaged by natural disasters, including, but not limited to, lightning, fire, insect infestations, earthquake, tornado, hail, hurricanes, and winds of (3 second) peak gust speeds of mph or higher measured at 10 meters above ground, or
- (b) Loss of integrity of the building envelope and, or structure including, but not limited to partial or complete loss of roof decking, wall siding, windows, doors or other envelope components or from roof damage by wind-blown objects, or:
- (c) The Versico Total Roofing System is damaged by any intentional or negligent acts, accidents, misuse, abuse, vandalism, civil disobedience, or the
- (d) Deterioration or failure of building components, including, but not limited to, the roof substrate, walls, mortar, HVAC units, non-Versico brand metal work, etc., occurs and causes a leak, or otherwise damages the Versico Total Roofing System; or
- (e) Acids, oils, harmful chemicals and the like come in contact with the Versico Total Roofing System and cause a leak, or otherwise damage the Versico Total Roofing System.
- (f) The Versico Total Roofing System encounters leaks or is otherwise damaged by condensation resulting from any condition within the building that may generate moisture.

- or through the roof or objects such as, but not limited to, structures, fixtures, solar panels, wind turbines, roof gardens or utilities are placed upon or attached to the roof without first obtaining written authorization from Versico;
- (b) Failure by the Owner to use reasonable care in maintaining the Versico's Care & Maintenance Information sheet which accompanies this Warranty.
- Only Versico brand insulation products are covered by this 5 warranty. Versico specifically disclaims liability, under any theory of law, for damages sustained by or caused by non-Versico brand insulation products.
- 6. During the term of this Warranty, Versico shall have free access to the roof during regular business hours.
- 7. Versico shall have no obligation under this Warranty while any bills for installation, supplies, services, and warranty charges have not been paid in full to the Versico Authorized Roofing Contractor, Versico, or material suppliers.
- 8. Versico's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
- 9. Versico shall not be responsible for the cleanliness or discoloration of the Versico Total Roofing System caused by environmental conditions including, but not limited to, dirt, pollutants, or biological agents.
- 10. Versico shall have no liability under any theory of law for any claims, repairs, restoration, or other damages including, but not limited to, consequential or incidental damages relating, directly or indirectly, to the presence of any irritants, contaminants, vapors, fumes, molds, fungi, bacteria, spores, mycotoxins, or the like in the building or in the air, land, or water serving the building.
- 11. This warranty shall be transferable upon a change in ownership of the building when the owner has completed certain procedures including a transfer fee and an inspection of the Roofing System by a Versico representative.

VERSICO DOES NOT WARRANT PRODUCTS UTILIZED IN THIS INSTALLATION WHICH IT HAS NOT FURNISHED; AND SPECIFICALLY DISCLAIMS LIABILITY, UNDER ANY THEORY OF LAW, ARISING OUT OF THE INSTALLATION AND PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY VERSICO OR THE PRIOR EXISTING ROOFING MATERIAL OVER WHICH THE VERSICO ROOFING SYSTEM HAS BEEN INSTALLED

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF THE VERSICO TOTAL ROOFING SYSTEM OR ITS COMPONENTS. THERE ARE NO WARRANTIES EITHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, WHICH EXTEND BEYOND THE FACE HEREOF. VERSICO SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGE TO THE BUILDING OR ITS CONTENTS UNDER ANY THEORY OF LAW.

\sim	
}	-
20-year standard total system	_
>	_
(
(

OWNER: **BUILDING:**

ROOFER:

DATE INSTALLATION COMPLETED: DATE OF ACCEPTANCE BY VERSICO: **WARRANTY EXPIRATION DATE:**

WARRANTY NUMBER:

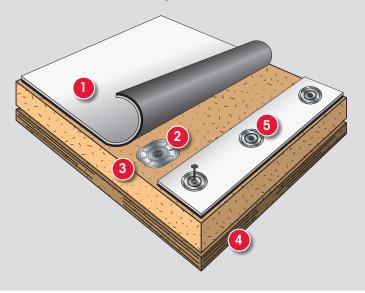
VERSICO, a division of Carlisle Construction Materials Incorporated

P.O. Box 1289 Carlisle, PA 17013 (717) 960-4035 FAX (800) 992-7663

BY



Mechanically Attached Roofing System



Typical Application

- VersiWeld® Reinforced TPO Membrane
- 2 Versico Insulation Fasteners and Plates
- 3 Acceptable Insulation
- 4 Approved Roof Deck
- 5 Membrane Fasteners and Plates

Colors	White, Gray and T <mark>an</mark>
Standard Thicknesses	45- <mark>, 60</mark> - and 80-mil
Standard Widths	4', <mark>6',</mark> 8', 10' and 12'
Standard Lengths	100'

System Features and Benefits

- Heat-weldable membranes
- High wind uplift performance
- Resistance to hail and accidental punctures
- Top ply membrane thickness adds improved long-term weatherability and durability
- VersiWeld TPO membrane meets ENERGY STAR®* qualifications and CRRC guidelines
- OctaGuard XT™ weathering package provides superior long-term performance
- Certified Fabricated Accessories

Installation

Versico's VersiWeld TPO Mechanically Attached Roofing System utilizes white, gray, or tan membranes in standard reinforced 45- or 60-mil thickness or 80-mil thick reinforced VersiWeld Plus membranes.

Insulation is mechanically attached to an acceptable roof deck. VersiWeld membrane sheets are mechanically attached to the deck with appropriate Versico fasteners and plates. Adjoining sheets are overlapped and joined together with a minimum 1½"-wide hot-air weld.

The above information represents a typical Versico VersiWeld TPO Mechanically Attached Roofing System. Refer to Versico's published specifications and details for more complete information.

VersiWeld TPO Membrane

Versico's VersiWeld TPO is a premium, heat-weldable, single-ply thermoplastic polyolefin membrane, engineered to provide outstanding long-term performance in new roof construction and re-roofing applications. All VersiWeld TPO membranes utilize the patented OctaGuard XT weathering package technology, which is able to withstand extreme durability testing intended to simulate exposure to several climates.





VersiWeld TPO Accessories

Versico also offers over a dozen prefabricated, in-stock, standardorder accessories, and countless custom-order accessories. All carry a CFA (Certified Fabricated Accessory) stamp of approval, so you know they are manufactured to the highest standards. Every Versico CFA-approved accessory saves time and money during installation.

Membrane and System Strengths

- VersiWeld TPO membrane is available in white, gray, and tan colors and 41, 61, 81, 101, and 121 widths
- VersiWeld TPO provides excellent puncture resistance
- VersiWeld TPO white and tan membranes are ENERGY STAR qualified
- VersiWeld TPO's reflectivity values exceed those of other heatweldable membranes
- VersiWeld TPO's top ply surface is thicker and smoother than other membranes on the market, improving welding results and reducing dirt pickup
- Industry-leading OctaGuard XT Weathering Package provides improved weatherability, durability and long-term rooftop performance

System Codes

- UL Class A, B and Universal Slope ratings are available over any deck type
- FM Uplift values up to 135 psf can be achieved

For code specifics, refer to Versico's Code Approval Guide.

Quality Assurance

Versico Authorized Contractors are highly trained in the installation of Versico's VersiWeld Roofing Systems.

Inspection

Upon installation completion, and prior to the issuance of a membrane system warranty, an inspection will be conducted by a Versico Field Service Representative.

Warranty

Consult your Authorized Contractor, Versico Independent Sales Representative or Distributor for associated warranty charges.

This system, properly installed and inspected on a commercial project, may receive:

- A 10-, 15-, or 20-year Total System Warranty when all materials used for the roofing installation are manufactured or marketed by Versico
- A 25- or 30-year Total System Warranty with 80-mil VersiWeld Plus membranes
- 55 mph maximum peak gust wind speed coverage is standard; higher wind speed warranties available upon review by Versico
- A 10-year Reflectivity Warranty (based on ENERGY STAR qualification) with white membranes
- Available Puncture Warranty with VersiWeld 60-mil and 80-mil

For more specifics or on warranty programs, contact Versico.











	New Construction				Re-roofing				
Existing or New Deck Type	Steel	Plywood or OSB	Lt. Wt. Concrete	Structural Concrete	Wood Planks	Gypsum & Fibrous Cement	Smooth- Surface BUR	Gravel- Surfaced BUR	Existing Single-Ply
Deck Overlayment Required	Insulation	No	No	HP Mat	Insulation	Insulation	No	Insulation	**Refer to Specs
Insulations		Approve	ed Versico insu	ulation or cov	er board		←	Refer to New C	Construction
Insulation Attached By		\	/ersico fasten	ers and plate	s		←	Refer to New C	Construction
Membrane Attached By	HPVX Fasteners; HPV-XL Fasteners	HPVX Fasteners; HPV-XL Fasteners	Gyptec Fasteners/ Plates	CD-10; MP 14–10 Fasteners	HPVX Fasteners	Gyptec Fasteners/ Plates	←	Refer to New C	Construction

FOR TEAR-OFF OPTIONS REFER TO NEW CONSTRUCTION ABOVE.

For current code approvals and warranties, visit Versico's website or contact a design analyst.

** Refer to Versico's VersiWeld Design Criteria Portion of the Current Specification.



A SINGLE SOURCE FOR SINGLE-PLY ROOFING

800.992.7663 • www.versico.com

VERSIWELD TPO REINFORCED MEMBRANE



Overview

Versico's VersiWeld TPO reinforced membrane is a premium, heat-weldable, single-ply thermoplastic polyolefin (TPO) sheet designed for new roof construction and re-roofing applications. VersiWeld High Slope (HS/ES) membrane is formulated with additional flame retardant for higher-slope fire code approvals. VersiWeld Plus is 80-mils thick for significantly higher strength and weatherability.

VersiWeld TPO membranes use advanced polymerization technology that combines the flexibility of ethylene-propylene (EP) rubber with the heat weldability of polypropylene. All VersiWeld TPO membranes include OctaGuard XTTM, an industry-leading, state-of-the-art weathering package. OctaGuard XT technology enables VersiWeld TPO to withstand the extreme weatherability testing intended to simulate exposure to severe climates.

Physical properties of the membrane are enhanced by a strong polyester fabric that is encapsulated between the TPO-based top and bottom plies. The combination of the fabric and TPO plies provides high breaking and tearing strength, as well as excellent puncture resistance. The relatively smooth surface of the membrane produces a total surface fusion weld that results in consistent, watertight, monolithic roof assembly. The membrane is environmentally friendly and safe to install.

VersiWeld TPO Standard and HS/ES membranes are available in highly reflective white, tan and gray, in both 45-mil and 60-mil. 80-mil VersiWeld Plus is also offered in white, gray and tan colors. Sixteen special colors are also available (see Versico TPO Color Palette brochure). Versico's TPO is offered in 4- and 6-ft perimeter sheets and 8-, 10- and 12-ft field sheets. VersiWeld special color TPO membranes are available in limited sizes.

Versico's tan and white TPO membranes are ENERGY STAR®*-qualified and California Title 24 compliant and can contribute toward LEED® (Leadership in Energy and Environmental Design) credits.

Optional APEEL Protective Film

Versico's VersiWeld TPO reinforced membrane is available with APEEL™ Protective Film, saving time and labor by eliminating the need for roof cleaning upon project completion. Versico's innovative APEEL Protective Film can be left in place for up to 90 days without affecting the integrity of the film, guarding the TPO membrane's surface from scuffs and dirt accumulation during installation. Durable and easy to remove, APEEL Protective Film improves aesthetics and long-term reflectivity and is ideal for re-roofing, re-cover, and new construction projects.

Features and Benefits

- Outstanding puncture resistance
- Chlorine-free with no halogenated flame retardants
- Plasticizer-free; does not contain liquid or polymeric plasticizers
- Excellent resistance to impact and low temperature
- Excellent chemical resistance to acids, bases and restaurant exhaust emissions
- UL 2218 Class 4 hail rating
- Exceptional resistance to heat, solar UV, ozone and oxidation
- Manufactured using a hot-melt extrusion process for complete scrim encapsulation
- 100% recyclable (refer to Versico's Recyclability Statement)
- Enhanced with the OctaGuard XT weathering package
- APEEL Protective Film guards the TPO membrane's surface from scuffs and dirt accumulation during installation, improving the roof system's appearance and long-term performance
- APEEL Protective Film can be left in place for up to 90 days without degrading due to its excellent heatand UV-resistance





A SINGLE SOURCE FOR SINGLE-PLY ROOFING

Versico, PO Box 1289, Carlisle, PA 17013
Tel: **800.992.7663** Fax: 717.960.4036 Web: **www.versico.com**



Installation

- VersiWeld TPO roofing systems are quick to install, as minimal labor and few components are required. TPO systems may be installed using an automatic heat welder, making sheet welding fast, clean, consistent, and easy to learn, while reducing strain on the roofing technician.
- APEEL Protective Film should be removed from within areas that are to be heat-welded together. In areas that do not require heat-welding, the APEEL Protective Film can be left in place for up to 90 days. When the installation of the entire TPO roofing system is complete, remove and discard the APEEL Protective Film.
- 3. The Versico Mechanically Attached Roof System installation starts by fastening the insulation with a minimum of 4 fasteners per 4' by 8' board. The membrane is mechanically fastened to the deck using HPVX Fasteners and HPVX Plates or HPV-XL Fasteners and HPV-XL Plates. Adjoining sheets of membrane are overlapped over the fasteners and plates and joined together with a minimum 1½"-wide (4cm) hot-air weld.

4. **The Versico Fully Ahered Roofing System** installation begins by fastening the insulation at the required density necessary to meet the appropriate wind load requirement. The substrate and membrane are coated with an appropriate VersiWeld TPO bonding adhesive and the membrane is rolled into place.

REVIEW CURRENT VERSICO SPECIFICATIONS AND DETAILS FOR SPECIFIC INSTALLATION REQUIREMENTS.

Precautions

- Sunglasses that filter out ultraviolet light are strongly recommended as tan and white surfaces are highly reflective. Roofing technicians should dress appropriately and wear sunscreen.
- 2. Surfaces may become slippery due to frost and ice buildup. Exercise caution during cold conditions to prevent falls.
- 3. Care must be exercised when working close to a roof edge when surrounding area is snow-covered as the roof edge may not be clearly visible.
- 4. Use proper stacking procedures to ensure sufficient stability of the rolls.

TYF	TYPICAL PROPERTIES AND CHARACTERISTICS						
Physical Property	ASTM D6878 Requirement	45-mil	60-mil B0-mil E	XTRA			
Tolerance on nominal thickness, % ASTM D751 test method	+15, -10	± 10	± 10				
Thickness over scrim, in. (mm) ASTM D6878 optical method, average of 3 areas	0.015 min (0.380)	0.018 typ (0.457)	0.024 typ 0.034 typ (0.864)				
Breaking strength, lbf (kN) ASTM D751 grab method	220 (976 N) min	225 (1.0) min 320 (1.4) typ	250 (1.1) min 350 (1.6) (360 (1.6) typ 425 (1.9)				
Elongation break of reinforcement, % ASTM D751 grab method	15 min	15 min 25 typ	15 min 15 min 25 typ 25 typ				
Tearing strength, lbf (N) ASTM D751 proc. B 8 in. x 8 in.	55 (245) min	55 (245) min 130 (578) typ	55 (245) min 55 (245) r 130 (578) typ 130 (578)				
Brittleness point, °F (°C) ASTM D2137	-40 (-40) max	-40 (-40) max -50 (-46) typ	-40 (-40) max -50 (-46) typ -50 (-46)				
Linear dimensional change, % ASTM D1204, 6 hours at 158°F	± 1 max	± 1 max -0.2 typ	± 1 max -0.2 typ ± 1 max -0.2 typ				
Ozone Resistance, no cracks 7X ASTM D1149, 100 pphm, 168 hrs	PASS	PASS	PASS PASS				
Water absorption resistance, mass % ASTM D471 top surface only 166 hours at 158°F water	± 3.0 max	± 3.0 max 0.9 typ	± 3.0 max 0.9 typ 2.9 typ	(
Factory seam strength, lbf/in (kN/m) ASTM D751 grab method	66 (290) min	66 (290) min	66 (290) min 66 (290) r	nin			
Field seam strength, lbf/in (kN/m) ASTM D1876 tested in peel	No requirement	25 (4.4) min 50 (8.8) typ	25 (4.4) min 60 (10.5) typ 40 (7.0) m 70 (12.3)				
Water vapor permeance, Perms ASTM E96 proc. B	No requirement	0.10 max 0.05 typ	0.10 max 0.05 typ 0.10 max 0.05 typ				
Puncture resistance, lbf (kN) FTM 101C, method 2031 (see supplemental section)	No requirement	250 (1.1) min 325 (1.4) typ	300 (1.3) min 400 (1.8) 350 (1.6) typ 450 (2.0)				
Properties after heat aging ASTM D573, 5,376 hours @ 240°F Breaking strength, % retained Elongation reinf., % retained Tearing Strength, % retained Weight change, %	198 (881) 90% min 13.5 (90%) min 33 (60%) min ± 1.0 max	205 (912) min 13.5 min 33 min 1.0 max	225 (1,000) min 13.5 min 33 min 1.0 max 33 min 1.0 max 33 min 1.0 max	O) min			
Typical Weights		0.23 (1.1)	0.29 (1.4) 0.40 (2.0)				

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of his product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

- 5. Exercise caution when walking on wet membrane. Membranes may be slippery when wet.
- 6. Store membrane in the original undisturbed plastic wrap in a cool, shaded area and cover the light-colored, breathable, waterproof tarpaulins. Membrane that has been exposed to the weather must be prepared with Weathered Membrane Cleaner prior to hot-air welding.
- Take care not to stand or place heavy objects on the edge of folded-over membrane, as this could cause a hard crease in the membrane.
- Maximum sustained temperature not to exceed 160°F (71°C) for TPO membrane.
- Do not use razor blades or other sharp tools to cut the APEEL Protective Film while it is still adhered to the TPO membrane. Pull the protective film away from the membrane prior to cutting.
- 10. Remove APEEL Protective Film by pulling toward the center of the roof. Do not remove the film by pulling toward the roof edge.
- 11. A static electric charge may develop when removing APEEL Protective Film from the surface of the membrane sheet. To avoid the possibility of ignition, lids must be closed on any flammable products and a fire extinguisher should be readily available.
- 12. Color membranes will 'fade' over time mainly due to the ultraviolet portion of sunlight. Since most roof surfaces are exposed to variable sunlight, some areas will be more susceptible to color changes caused by UV fading. Warranties for color membranes do not cover fading of colors.

Extreme Testing for Severe Climates

ASTM Standard D6878 is the material specification for Thermoplastic Polyolefin-Based Sheet Roofing. It covers material property requirements for TPO roof sheeting and includes initial and aged properties after heat and xenon-arc exposure. As stated in the scope of the standard, "the tests and property limits used to characterize the sheet are values intended to ensure minimum quality for the intended purpose." Versico's goal is to produce TPO that delivers maximum performance for the intended purpose of roofing membranes. Maximum performance requires the membrane to far exceed the requirements of ASTM D6878. Heat Aging accelerates the oxidation rate that roughly doubles for each 18°F (10°C) increase in roof membrane temperature. Oxidation (reaction with oxygen) is one of the primary chemical degradation mechanisms of roofing materials.

VERSICO EXTREME TESTING – HEAT AGING

		ASTM Requirement	VersiWeld Requirement
ASTM TEST	240°F	32 weeks*	52 weeks
*Comparable to	1,024 weeks	(20 yrs) at 185°F for 6 hrs/day.	

- Test specimen is 1" by 4" piece of 45-mil membrane unbacked, placed in a circulating hot-air oven.
- Criterion no visible cracks after bending aged test specimen around 0.25"-diameter mandrel.

Xenon-Arc exposes the membrane samples to the combined effect of UV, visible and infrared radiation as well as ozone, heat and water spray to greatly acclerate the effects of outdoor weathering. The radiation dose is measured in kilojoules per square meter (kJ/m²) at 340 nm machine UV wavelength. The irradiance power of the xenon-arc lamp is measured in watts per square meter (W/m²).

VERSICO EXTREME TESTING – XENON-ARC					
		VersiWeld Results			
ASTM TEST	ASTM D6878 REQUIREMENT	45-MIL	60-MIL	80-MIL	
kJ/m² at 340 nm	10,080	17,640	20,160	27,720	

- Test specimen is 2.75" by 5.5" piece of membrane, unbacked, weathering side facing arc lamp.
- Criterion no visible cracks viewed under 10x magnification while wrapped around 3"-diameter mandrel.

Environmental Cycling subjects the membrane to repeated cycles of heat aging, hot-water immersion and xenon-arc exposure.

- ASTM requirement none
- Versico EXTREME test*:
 - 10 days heat aging at 240°F (116°C) followed by
 - 5 days water immersion at 158°F (70°C) followed by
 - 5,040 kJ/m² (2000 hrs at 0.70 W/m² irradiance) xenon-arc exposure

^{*}Test specimen is 2.75" by 5.5" piece of membrane with edges sealed.

^{*}Criterion - after 3 complete cycles, test specimens shall remain flexible and not have any cracking under 10x magnification while wrapped around a 3"-diameter mandrel.

Supplemental Approvals, Statements and Characteristics:

- VersiWeld TPO meets or exceeds the requirements of ASTM D6878 Standard Specification for Thermoplastic Polyolefin-Based Sheet Roofing.
- Radiative properties for ENERGY STAR, Cool Roof Rating Council (CRRC) and LEED.
- 3. VersiWeld TPO membranes conform to requirements of the US E.P.A. Toxic Leachate Test (40 CFR part 136) performed by an independent analytical laboratory.
- 4. VersiWeld TPO was tested for dynamic puncture resistance per ASTM D5635-04 using the most recently modified impact head. 45-mil was watertight after an impact energy of 12.5 J (9.2 ft-lbf) and 60-mil was watertight after 22.5 J (16.6 ft-lbf). The 80-mil was watertight after an impact energy of 30.0 J (22.1 ft-lbf).

LEED INFORMATION				
Pre-consumer Recycled Content	10%			
Post-consumer Recycled Content	0%			
Manufacturing Location	Senatobia, MS Tooele, UT			
Solar Reflective Index (SRI)	White: 99 Tan: 86			

RADIATIVE PROPERTIES FOR ENERGY STAR* AND LEED*						
	Test Method	White TP0	Tan TPO	Gray TPO		
ENERGY STAR initial solar reflectance	Solar Spectrum Reflectometer	0.79	0.71	→ N/A		
ENERGY STAR initial solar reflectance after 3 years	Solar Spectrum Reflectometer (after cleaning)	0.70	0.64	→ N/A		
CRRC initial solar reflectance	ASTM C1549	0.79	0.71	0.46		
CRRC solar reflectance after 3 years	ASTM C1549 (uncleaned)	0.70	0.64	0.43		
CRRC initial thermal emittance	ASTM C1371	0.90	0.86	0.89		
CRRC thermal emittance after 3 years	ASTM C1371 (uncleaned)	0.86	0.87	0.88		
LEED thermal emittance	ASTM E408	0.90	0.86	0.85		
Solar Reflectance Index (SRI)	ASTM E1980	99	86	53		

Solar Reflectance Index (SRI) is calculated per ASTM LIGAR. The SRI is a measure of the roof's ability to reject solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90) is 100. Materials with the highest SRI values are the coolest choices for roofing. Due to the way SRI is defined, particularly hot materials can even take slightly negative values and particularly cool materials can even exceed 100.

*ENERGY STAR recommends that using the Roof Savings Calculator (rsc.cml.gov), which factors in both heating and cooling costs, to determine whether a cool roof will be an energy efficient choice for your geographic climate and building type.

DENSDECK® ROOF BOARD



Overview

DensDeck Roof Board's patented design features a gypsum core with embedded glass mat facers on the top and bottom of the board. DensDeck can be used in a variety of commercial roof systems and provides an excellent thermal barrier as well as exceptional fire, moisture, and wind uplift resistance properties.

DensDeck is primarily used as a cover board over insulation in mechanically fastened roofing applications. Frequently used in wood deck construction to achieve UL code ratings. DensDeck reduces the potential for growth of mold and mildew per ASTM D 3273.

Features and Benefits

- UL code ratings available for (class A, B, C) unlimited slopes and wood decks
- FM Approved
- Improves resistance to foot traffic and hail damage
- Excellent wind uplift ratings
- Resistant to deterioration, warping, and jobsite damage
- 5%" DensDeck can replace any generic Type "X" gypsum board in any roof assembly in the UL Fire Resistance Directory under the prefix "P"

Installation

DensDeck may be secured with DASH or FAST™ Adhesive, fastened in accordance with an approved fastening pattern, or mopped with Type III or IV asphalt.

Edge joints should be located on and parallel to deck ribs. End joints of adjacent lengths should be staggered.

- 1. This material shall be installed with ends and edges butted tightly.
- 2. When installed over combustible wood decks or insulations, all joints should be staggered.
- In accordance with approved shop drawings, FM Approved fasteners shall be installed with plates through the roof board, flush with the surface.

REVIEW CURRENT VERSICO SPECIFICATIONS AND DETAILS FOR SPECIFIC INSTALLATION REQUIREMENTS.

Precautions

- Panels must be kept dry before, during and after installation. Apply only as much roof board as can be covered by roof membrane in the same day.
- ¼" DensDeck is not recommended for vertical parapet applications or for asphalt attachment.
- In ballasted roofing systems, DensDeck is not an acceptable membrane underlayment.

Ratings and Certifications

- Manufactured to conform to ASTM C-1177
- Tested in accordance with ASTM E-84 or CAN/ULC-S102
- Non-combustible when tested in accordance with ASTM E-136
- UL code approval for current class A, D, C approvals



A SINGLE SOURCE FOR SINGLE-PLY ROOFING

ТҮРІ	CAL PROPERTIES AND	CHA	RACTERISTICS TO	
Properties	1⁄4" (6.4 mm)	>	½" (12.7 mm)	5%" (15.9 mm)
Thickness, nominal	1/4" (6.4 mm) ± 1/16" (1.6 mm)	7	½" (12.7 mm) ± ½" (.8 mm)	5/8" (15.9 mm) ± 1/32" (.8 mm)
Width, standard	4' (1219 mm) ± 1/8" (3 mm)		4' (1219 mm) ± 1/8" (3 mm)	4' (1219 mm) ± 1/8" (3 mm)
Length, standard	8' (2438 mm) ± 1/4" (6.4 mm)		8' (2438 mm) ± 1/4" (6.4 mm)	8' (2438 mm) ± 1/4" (6.4 mm)
Weight, nominal, lbs./sq. ft. (Kg/m²) ⁷	1.2 (5.9)		2.0 (9.8)	2.5 (12.2)
Surfacing	Fiberglass mat	7	Fiberglass mat	Fiberglass mat
Flexural Strength¹, parallel, lbf. min. (N)	≥40 (178)	\succ	≥80 (356)	≥100 (444)
Flute Spanability ²	2-5/8" (67 mm)	>	5" (127 mm)	8" (203 mm)
Permeance³, Perms (ng/Pa• S• m²)	> 50 (2850)	٢	> 35 (1995)	> 32 (1824)
R Value⁴, ft²• °F• hr/BTU (m²• K/ W)	0.28	٦	0.56	0.67
Linear Variation with Change in Temp., in/in °F (mm/mm/C°)	8.5 x 10 ⁻⁶ (15.3 x 10 ⁻⁶)		8.5 x 10 ⁻⁶ (15.3 x 10 ⁻⁶)	8.5 x 10 ⁻⁶ (15.3 x 10 ⁻⁶)
Linear Variation with Change in Moisture	6.25 x 10 ⁻⁶	(6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶
Water Absorption⁵, % max	<10		<10	<10
Compressive Strength ⁶ , psi nominal	900	>	900	900
Surface Water Absorption, grams, nominal ¹	< 2.5	-	< 2.5	< 2.5
Flame Spread, Smoke Developed (ASTM E84)	0/0	-	0/0	0/0
Bending Radius	5' (1524 mm)	_	8' (2438 mm)	12' (3658 mm)

⁷ Represents approximate weight for design and shipping purposes. Actual weight may vary based on manufacturing location and other factors.

LEED® INFORMATION								
Manufacturing Location ¹	Total Recycled Content ²	Pre-Consumer Recycled Content ²	Post-Consumer Recycled Content ²					
Acme, TX	0%	0%	0%					
Antioch, CA	0%	0%	0%					
Ft. Dodge, IA	0%	0%	0%					
Las Vegas, NV	0%	0%	0%					
Lovell, WY	0%	0%	0%					
Newington, NH	30%	30%	0%					
Savannah, GA	0%	0%	0%					
Tacoma, WA	14%	14%	0%					
Wheatfield, IN	94%	94%	0%					

¹ Manufacturing locations subject to change. Please visit www.gpgypsum.com and click on

² Tested in accordance with ASTM E661.

³ Tested in accordance with ASTM E96 (dry cup method).

⁴ Tested in accordance with ASTM C518 (heat flow meter).

⁵ Tested in accordance with ASTM C1177.

⁶ Tested in accordance with ASTM C473.

 $^{^2}$ Minimum value as of October 1, 2009 for product recycled content $\pm 1.0\%$.

³ Based on ICC Evaluation Service Verification of Attributes Report for Dens® brand products issued August 1, 2009. www.saveprogram.icc-es.org

CERTIFIED FABRICATED



ACCESSORIES



A ready reference guide for ordering TPO Accessories for your next job. All accessories are available in gray and tan except 6" and 10" RUSS.

SRC: Using TAN Accessories



VersiWeld Square Tubing Wraps

are fabricated using 60-mil reinforced VersiWeld membrane and are designed to flash square metal tubing. A split and overlap tab are incorporated into these parts to allow the flashings to be opened and wrapped around a square penetration with an obstruction. Includes pressuresensitive termination flashing.

Sizes Available: 3" x 3", 4" x 4", 5" x 5", and 6" x 6". Other sizes and colors available through special order.

Quantity Per Box: 8



1-VersiWeld TPO Inside Corners 2-VersiWeld TPO Outside Corners

are pre-molded and are used for flashing inside and outside corners of a variety of details.

Quantity Per Bag: 12

3-VersiWeld TPO T-Joint Covers

are pre-punched non-reinforced flashings used to seal intersections on 60 and 80-mil TPO membranes.

Sizes Available: 4.5" in diameter Quantity Per Box: 100



VersiWeld Split Pipe-Seals

are fabricated flashings made of 60-mil reinforced VersiWeld membrane for flashing pipes with an obstruction that prevents the installation of a molded pipe seal. Includes stainless steel clamping rings.

Sizes Available: 1", 2", 3", 4", 5" and 6" diameter. Other sizes and colors available through special order.

Quantity Per Box: 8



VersiWeld Molded Pipe Seals

are injection-molded, pre-formed flashings for pipes. Includes stainless steel clamping rings. Sizes Available: %1" to 8" in diameter Quantity Per Box: 8



VersiWeld Pressure-Sensitive Coverstrip

is a non-reinforced TPO laminated to a pressuresensitive tape used for stripping in flat metal flanges such as drip edge. Sizes Available: 6" x 100" Quantity Per Box: 2 rolls



VersiWeld Pressure-Sensitive RUSS

is available in two types. 10" RUSS (shown) is used in place of narrow width sheets to secure membrane in the perimeter of the roof. 6" RUSS is used to secure membrane at the base of vertical walls without penetrating the sheet. Sizes Availables: 6" x 100" and 10" x 100" Quantity Per Box: 2 rolls of 6" x 100" and



VersiWeld Molded Sealant Pockets

are interlocking, two-piece, injection molded weldable pockets and are used to waterproof pipe clusters or other odd shaped penetrations. Sizes Available: Approximate 7.5"-10" x 6" x 2" high Quantify Per Box: 5 full pockets



VersiWeld Walkway Rolls

are designed to protect the VersiWeld membrane in those areas exposed to repetitive foot traffic and other hazards. Stocked in white, tan and gray, special colors available (minimum quantities apply). Sizes Available: 34" x 50" rolls

Sizes Available: 34" x 50" Quantity Per Box: 1 roll



Yellow Pressure-Sensitive Warning Strip

is a nominal 30-mil-thick non-reinforced TPO flashing laminated to a nominal 30-mil thick fully cured synthetic rubber adhesive. Vellow PS Warning Strip can be applied to EPDM and TPO roofing systems to provide a visual warning of an impending hazard (i.e. roof edge, deep drain sump, skylight).

Sizes Available: 6" x 100' rolls Quantity Per Box: 2 rolls



VersiWeld Curb Wrap Corners

are fabricated flashings made of 60-mil reinforced TPO membrane designed to reduce curb flashing time. Each corner has a 6"-wide base flange and a 12" overall height. One curb will require 4 corners. Sizes Available: 7" wrap for 12" curb., 13" wrap for 24" curb, 19" wrap for 36" curb. Other sizes and colors available through special orders. Can also be ordered in 1- or 2-piece wraps

Quantity Per Box: 12 wraps per box or 3 full curbs



A SINGLE SOURCE FOR SINGLE-PLY ROOFING

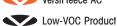




VersiFlex PVC







Adhesives & Sealants

HYDROBOND™ PVC WATER-BASED ADHESIVE



A water-based, wet lay-in, one-sided dispersion adhesive that is used to secure VersiFlex PVC and VersiFleece® PVC membranes to a variety of substrates. Complies with the California Clean Air Act of 1988 (updated in 1997) and California Air Quality Control District's listing of VOC limitations. Meets the requirements of the OTC Model Rule for Single-Ply Rooting Adhesives. Cannot be used with KEE HP smooth backed membrane.

Coverage Rate:

Smooth-backed membrane:

Roller application 100 square feet per gallon of finished surface.

Spray application – 133 square feet per gallon of finished surface.

VersiFleece membrane:

Roller application – 100 square feet per gallon over polyiso, DensDeck, DensDeck Prime, SECUROCK, and plywood. Spray application – 100 square feet per gallon over DensDeck and 133 square feet per gallon over polyiso DensDeck Prime/SECUROCK, and plywood.

Packaging: 5-gal pail Product Number: 322112 Shelf Life: 12 months

SOLVENT-FREE EPDM BONDING ADHESIVE



A high-strength, low-odor, polymer-based adhesive that allows fast installation of EPDM membranes and cured flashings to various substrates. This adhesive is specially designed for installing VersiGard (black and white) non-reinforced EPDM membranes.

Coverage Rate: 100 square feet per gallon. Packaging: 5-gal pail

Product Number: 318127 Shelf Life: 6 months



CAV-GRIP 3V LOW-VOC ADHESIVE/PRIMER



CAV-GRIP 3V Low-VOC Aerosol Contact Adhesive/Prime can be used for a variety of applications: adhering VersiFleece, standard VersiWeld TPO, and VersiGard EPDM membrane to vertical walls, enhancing the bond between Versico's VapAir Seal 725TR and various substrates, and priming unexposed asphalt prior to applying DASH Adhesive for insulation attachment. CAV-GRIP 3V can also be used with standard TPO membranes as a substrate adhesive on horizontal surfaces for warranties up to 20 years.

Coverage Rate: See TDB. Packaging: 40-lb aerosol cylinder

Product Number: 330420

Shelf Life: 12 months unopened container

AQUA BASE 120 BONDING ADHESIVE



A semi-pressure-sensitive water-based adhesive. This product may be used as a two-sided contact adhesive with EPDM and TPO membranes.

Coverage Rate: 120 quare feet per gallon finished surface. (May vary due to conditions such as insulation type or wall construction.)

Packaging: 5-gal pail Product Number: 307431 Shelf Life: 12 months



COLD-APPLIED ADHESIVE



An asphalt-modified polyether, one-sided, wet lay-in adhesive designed to adhere to VersiFleece AC membranes and Versico's modified base

Coverage Rate: 67 square feet per gallon for finished or smooth surfaces. 50 square feet per gallon of finished surface for uneven surfaces.

Packaging: 5-gal pail Product Number: 319689

Shelf Life: 9 months when stored below 90°F





DASH ADHESIVE



A low-rise, two-component, insulating polyurethane adhesive used to adhere a variety of insulations and Versico's VersiFleece membranes. DASH adhesive is available in various packaging options.

Coverage Rate: See Jechnical Data Bulletin.

Packaging:

50-gallon drum – Part A – Product Number: 304003 50-gallon drum – Part B – Product Number: 304004 15-gallon drum – Part A – Product Number: 304001 15-gallon drum ≠ Part B – Product Number: 304002 5-Gallon Jug – Part A – Part Number: 329523 5-Gallon Jug / Part B – Part Number: 329524 Qual Tank – Part A – Product Number: 325445 Dual Tank – Part B – Product Number: 325664 Dual Cartridge – Product Number: 315177

Static Mixing Tip: 305573

Shelf (Part A and Part B)

FLEXIBLE DASH ADHESIVE



Allow-rise, two-component, VOC-free, energy-absorbing, impact-resistant adhesive used to adhere Versico's VersiFleece membranes and insulation boards to various substrates for a totally non-penetrating system application. Flexible DASH adhesive provides a wider window of temperature workability (25°F - 120°F).



Coverage Rate: See Technical Data Bulletin.

Packaging:

50-gallon drums – Part A – Product Number: 310472 50 gallon drums – Part B – Product Number: 310473 15-gallon drums – Part A – Product Number: 317329 5-gallon drums – Part B – Product Number: 317331 5-Gallon Jug – Part A – Product Number: 329526 5-Gallon Jug - Part B - Product Number: 329527 Dual Tank - Part A - Product Number: 328043 Dual Tank - Part B - Product Number: 328044 Dual Cartridge - Product Number: 322958 Shelf Life: 12 months (Part A and Part B)

Adhesives & Sealants

V-150 EPDM PRIMER



A solvent-based product designed for cleaning and priming EPDM membranes prior to the application of QA products.

Coverage Rate: As high as 450 square feet per gal-Ion with clean EPDM membrane. Approx. 250 square feet per gallon with standard membrane.

Packaging: (6) 1-gal cans Product Number: 302081 Shelf Life: 12 months

TPO PRIMER



A high-solids, clear polymer-based primer used to prepare TPO membrane prior to the application of TPO pressure-sensitive products.

Coverage Rate: 200 - 250 square feet (one

surface) per gallon.

Packaging: (6) 1-gal cans Product Number: 310471

Shelf Life: 12 months unopened can





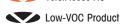






VersiFleece AC

VersiWeld TPO VersiFlex PVC



WEATHERED MEMBRANE CLEANER



Used to clean both new and in-service VersiGard EPDM membrane and VersiWeld TPO membrane prior to the welding process. It helps to loosen and remove dirt and other contaminants from the surface of the membranes and leaves a suitable surface for application of adhesive or primer. Please refer to the Technical Data Bulletins for specific instructions for EPDM and TPO applications. Membrane cleaner is clear in color.

Coverage Rate: 400 square feet (one surface) per gallon.

Packaging:

(2) 1-gal closed-top cans, 5-gal closed-top pail

1-gal cans

Product Number: 304066

5-gal pail

Product Number: 302074

CCW-702 AND CCW-702LV PRIMERS



Adhesives & Sealants

Solvent-based, high-tack adhesives specifically designed to promote maximum adhesion of Versico 725TR Air and Vapor Barrier to approved substrates. They are also used as a surface prep to promote adhesion with DASH Adhesive.

Coverage Rate: 300-350 saugre feet per gallon.

Packaging: 5-gal pails

CCW-702

Product Number: 305363

CCW-702L\

Product Number: 316148

Shelf Life: 12 months unopened pail

* CCW-702LV only - not Compliant in all CA counties

LOW-VOC PRIMER



Designed for one-step priming of EPDM and TPO surfaces prior to the application of pressure-sensitive products. It is a Low-VOC product that is ideal for use where environmental issues are a concern.

Coverage Rate: As high as 700 square feet per gallon with TPO or Clean (No Dust) EPDM membrane. Approx. 250 square feet per gallon with dusted EPDM membrane.

Packaging: (6) 1-gal cans Product Number: 329161 Shelf Life: 12 months

X-TENDA ÇÓAT™ T-23 PRIMER



A low-viscosity, water-based acrylic primer designed to promote optimal adhesion of X-Tenda Coat Acrylic Coating and other acrylic topcoats to new or existing TPO and most PVC single-ply membranes.

Coverage Rate: 200-300 square feet per gallon, using an airless sprayer or a roller, to a properly prepared surface. Appropriate coverage rate will depend on the condition of the surface.

Packaging: 5-gallon pail Product Number: 323322 Shelf Life: 12 months



PVC AND KEE HP MEMBRANE CLEANER



This cleaner is specially formulated to clean both new and in-service VersiFlex PVC and VersiFlex KEE HP membranes.

Packaging: 5-gal closed-top pail Product Number: 329729











A 100%-solids, solvent-free, one-part, polyether sealant that provides a weathertight seal to a variety of building substrates. Universal Single-Ply Sealant can be used in lieu of lap sealant for VersiWeld, VersiFlex and VersiGard white adhered and mechanically attached roofing systems.

Coverage Rate: 25' per tube or 600' per carton

using a 1/4" bead.

Packaging: 24 Tubes/carton Product Number: 310131

Shelf Life: 12 months unopened container (@

<90°F)

UNIVERSAL SINGLE-PLY SEALANT



^{*} Not Compliant in all CA counties



Adhesives & Sealants

WATER CUT-OFF MASTIC



A one-component, low-viscosity, self-wetting, butylblend mastic designed to be used in conjunction with roofing and waterproofing systems. It is primarily used as a sealing agent between various membranes and substrates for compression type terminations.

Coverage Rate: 10' per tube, using a 7/16" bead.

Packaging: 25 Tubes/carton Product Number: 302202

Shelf Life: 12 months unopened container



CUT EDGE SEALANT

TPO CUT EDGE SEALANT

A clear, free-flowing polymeric material designed for sealing cut edges (exposed fabric) of VersiWeld TPO membrane.

Coverage Rate: 225'-275' per 16-oz. bottle when

applied with 1/8" bead.

Packaging: (8) 16-oz. bottles/carton Product Number: 303436 Shelf Life: 12 months



PVC CUT EDGE SEALANT

Also Available (Not shown)

PVC Cut Edge Sealant is recommended for sealing cut edges (exposed fabric) of VersiFlex PVC Membrane. Cut Edge Sealant is clear in color.

Coverage Rate: 225'-275' per bottle when applied

with 1/8" bead.

Packaging: (12) 16-oz. bottles/carton **Product Number: 307754** Shelf life: 12 months



©300 BLACK & WHITE LAP SEALANTS



The consistency enables it to expand and contract with membrane movement without loss of adhesion. Lap Sealants may be used to seal mechanical terminations, the cut edges of VersiGard Reinforced EPDM membranes and for sealing at splice intersections. Lap Sealant must be applied and feathered on all seam edges by the end of the working

Coverage Rate: 22' per tube using a 5/16" bead.

Packaging: 25 tubes/carton

Product Number: 302189 - Black 309819 - White

Shelf Life: 12 months

SPLICE ADHESIVE



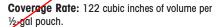
Designed for splicing cured-to-cured EPDM membranes and non-QA flashings, this high-strength, solvent-based contact cement allows quick bonding of flashing, speeting, and cured rubber seams. Formulated for application with a ½" medium nap roller and/or a ½"-thick paint brush, the versatile tack time allows large areas to be coated and adhered at one time.

Coverage Rate: 100 square feet per gallon. Packaging: (6) 1-gal cans - Black and White **Product Number:** 309550 - Black; 302147 - White Shelf Life: 12 months - Black; 9 months - White

BLACK ONE-PART POURABLE SEALER



A single-component, moisture-curing, elastomeric polyether sealant that is compatible with Versico's EPDM membranes. It is designed to provide a flexible, durable and long-lasting seal around hard-to-flash penetrations. The sealant's consistency allows for quick pocket filling without mixing. Unused sealant is usable for up to 30 days if souch is resealed with original cap. Black one-part pourable sealer is black in color.



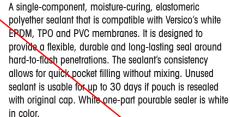
Packaging: (4) ½-gal pouches per bucket

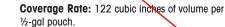
Product Number: 307647

Shelf Life: 12 months unopened container

WHITE ONE-PART POURABLE SEALER







Packaging: (4) ½-gal pouches per bucket

Product Number: 307603 Shelf Life: 18 months

^{*} Not Compliant in all CA counties



FASTENERS & PLATES

SYSTEM ACCESSORIES

Versico offers a wide variety of fasteners and plates to enhance our roofing systems.

From pre-assembled choices for VersiGard® installations to Purlin fasteners for Metal Retrofit Systems and HPVX plates for VersiWeld® options, our focus is to provide all components necessary for the application of a long-lasting, single-ply roofing system from Versico.

					PACKAGING	
PRODUCT	DECK TYPE	USAGE	DESCRIPTION	SIZE	SIZE	# PER CTN
HPV Fastener	Steel (22 gauge & heavier) Wood Plank Decks CDX Plywood	VersiGard Membrane, Insulation Securement, RTS	 #3 Square Drive Recess Flat Wafer Style Head and Buttress Threads Mini Drill Point 	11/4", 2"– 15" (1" Increments) Longer Fastener Sizes Available As Special Order	11/4" 2"- 6" 7"- 12" 13"- 15"	1000 1000 500 250
Insultite	Wood Decks Steel (22 gauge & heavier)	Insulation Only	#3 Phillips HeadDeep Buttress Threads	• 15/6", 21/4" • 3"- 8" (1" Increments)	15/8", 21/4" 3"- 8"	1000 1000
GypTec Fastener Cementitious Wood Fiber Lightweight Conc Gypsum	Wood Fiber Lightweight Concrete	VersiGard, VersiFlex [™] & VersiWeld Membranes, Insulation Securement GypTec Plate (not show	¼" Square Drive Glass Filled Nylon Fastener	• 2½"- 10" (½" Increments)	2½"- 7" 7½"- 10"	500 250
Sept.		1000/ctn 2" Steel Plate for Membrane Attachment 3" Steel Plate for Insulation Attachment				





FASTENERS & PLATES

SYSTEM ACCESSORIES

PRODUCT USED WITH USAGE DESCRIPTION SIZE # PER CTN

HPVX-Plate HPVX Fastener VersiWeld and VersiFlex Membranes, Steel, with Reinforcing Ribs

P A C K A G I N G

PER CTN

20 Gauge Metal Plate with Reinforcing Ribs



HPV-XL Plate

HPV-XL Fastener

VersiWeld and VersiFlex Membranes, Steel

Concrete, Wood

 20 Gauge Metal Plate with Reinforcing Ribs and 12 "Gripping Teeth"

and 12 "Gripping Teeth"

 Oversized Hole to Accommodate HPV-XL Fastener • 2 3/8" (Diameter) 1000



Polymer Seam Plate

HPV Fastener

VersiGard Membrane Mechanically Attached Systems, RTS Attachment

- Round Nylon Plate with 16 Barb Profile on Underside
- 2" (Diameter)

1000





HPV Fastener MP14-10, CD-10

VersiGard Membranes Mechanically Attached Systems, (Excluding Steel Decks), RTS Attachment (Excluding Mechanically Attached Systems Over Steel Decks)

- 20 Gauge, Round Metal Plate with Aluminized Coating
- 2" (Diameter)

• 3"

1000

Insulation Fastening Plate



Insulation Only Standard Heavy-Duty CD-10 Fluted Nail, Steel, Wood, Concrete

- 26 Gauge
- Round Metal Plate with Aluminized Coating

1000

Oval Barbed Plate



HPVX Fastener

VersiFlex and VersiFlex-E Membranes, Mechanically Attached Systems, Metal, Wood, Concrete, Steel

- 8-gauge
- GALVALUME® corrosion-resistant metal barbed plate

• 1.5" x 2.75"

500





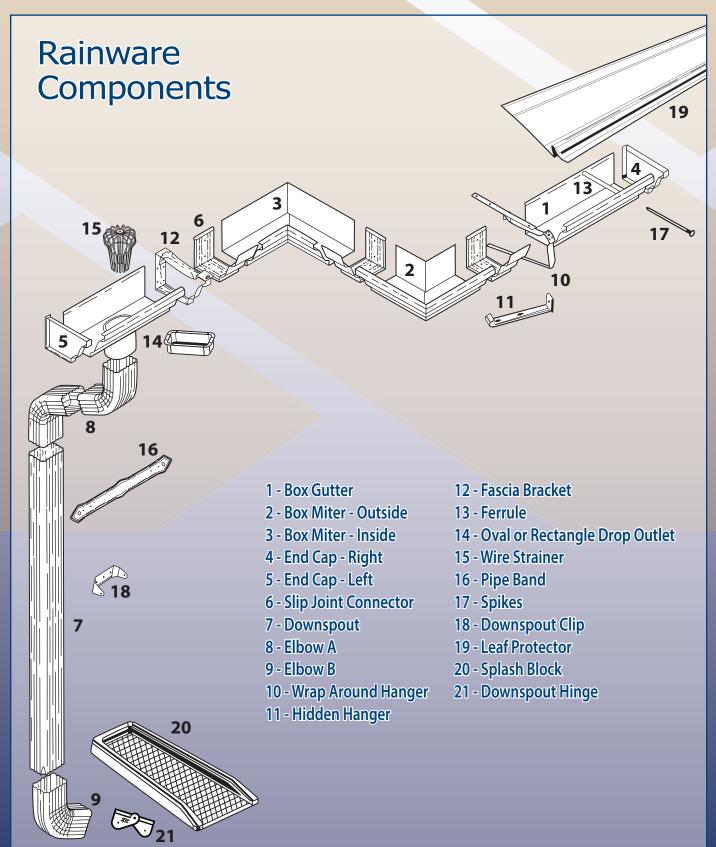


See NEW Premium Stainless Steel Micro Mesh Gutter Screen Pg 24

2020
RAINWARE, TRIM COIL
& SIDING ACCESSORIES
Beloit Plant

www.acm-metals.com







BELOIT PLANT

Spin Down Gutter Coil



Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Pound
ASC21134	Aluminum 11'3/4" Coil	(Listed Below)	0.027	Order by the lb.
ASC21178	Aluminum 11'7/8" Coil	(Listed Below)	0.027	Order by the lb.
ASC21178M2	Aluminum 11'7/8" Coil	M2 (Premium Color)	0.027	Order by the lb.
ASC215	Aluminum 15" Coil	(Listed Below)	0.027	Order by the lb.
ASC215M2	Aluminum 15" Coil	M2 (Premium Color)	0.027	Order by the lb.
ASC31134	Aluminum 11'3/4" Coil	(Listed Below)	0.032	Order by the lb.
ASC31178	Aluminum 11'7/8" Coil	(Listed Below)	0.032	Order by the lb.
ASC315	Aluminum 15" Coil	(Listed Below)	0.032	Order by the lb.
GSC61178WH	Galvanized 11'7/8" Coil	WH	26 ga	Order by the lb.
GSC61178PR	Galvanized 11'7/8" Coil	PR	26 ga	Order by the lb.
GSC611	Galvanized 11'7/8" Coil	BB/WH, CC/WH, CG/HG, DS/WH, EG/WH ES/BZ, HV/WH, MB/WH, PC/WH, RB/WH, RW/BK, TA/CU, VG/WH, WI/WH		Order by the lb.
GSC154	Galvanized 15" Coil	PR, WH	26 ga	Order by the lb.
GSC154	Galvanized 15" Coil	BB/WH, CC/WH, CG/HG, DS/WH, EG/WH ES/BZ, HV/WH, MB/WH, PC/WH, RB/WH, RW/BK, TA/CU, VG/WH, WI/WH		Order by the lb.
LSC61178	Calvaluma 11/7/9// Cail	Mill	26.00	Order by the Ib
	Galvalume 11'7/8" Coil		26 ga	Order by the lb.
LSC615	Galvalume 15" Coil	Mill	26 ga	Order by the lb.
		1 1 1 1 1 Y Y Y Y Y Y Y Y	مثم	ککک
CSC21178	Copper 11'7/8" Coil	Copper	16 oz	Order by the lb.
CSC215	Copper 15" Coil	Copper	16 oz	Order by the lb.
Note: Min o	f 25 lbc /May of 150 l	he		

Note: Min. of 25 lbs./Max. of 150 lbs.

As an extra service, we'll spin down small quantities of a slow moving color on a special order basis. Minimum quantity is 25 lbs.

Please note, once order is activated, no returns or changes can be made.

Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

				<u>•</u>					
COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
NX ALMOND	AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC*	М3	NX SIERRA	SI
ALMOND	AL	CLASSIC CREAM	CC	NX GRANITE	GG	REDWOOD	RW	 NX SILVER/SILVER GREY 	/ SG
ANTIQUE IVORY	ΑI	• CLAY	CL	 HARBOR GREY 	HG	 ROYAL BROWN 	RB	NX TAN	TN
 BEAVER BROWN 	BB	COPPER PENNY	CP	JEFFERSON TAN	JT	NX RUSSET	RT	TERRA BRONZE	TB
BLACK	BK	 COUNTRY BLUE 	CU	NX LINEN	LN	★RUSTIC COPPER	M2	VICTORIAN GREY	VG
• BRONZE	BZ	DESERT SAND	DS	• LINEN	LI	SAGE*	SA	VILLAGE GREEN	VI
BROOKSTONE	BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
BUCKSKIN	BU	EGG SHELL*	ES	 MUSKET BROWN 	MB	NX SAND STONE	SS	• 30 WHITE	WH
• CAMEO	CA	EVEREST	EV	NORWEGIAN WOOD	NW	 SANDTONE 	ST	80 WHITE	80
NX CHAMPAGNE	CH	• EVERGREEN	EG	PEBBLESTONE CLAY	/ PC				

*Not available - .027: •11'3/4" M3 •11'7/8" SA, ES •15" SA **.032:** •11′3/4″ ES, M3, SA •11′7/8″ M3 •15" M3

*Rustic Copper is a PREMIUM color. NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.

Rainware Steel Colors:

COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
BEAVER BROWN	ВВ	CLASSIC CREAM	CC	EVERGREEN	EG	PEBBLESTONE CLAY	PC	TAHOE BLUE	TA
BLACK	BK	COUNTRY BLUE	CU	HARBOR GREY	HG	PRIME	PR	VICTORIAN GREY	VG
BRONZE	BZ	DESERT SAND	DS	HARVEST BROWN	HV	REDWOOD	RW	WICKER	WI
CHARCOAL GREY	CG	EGGSHELL	ES	MUSKET BROWN	MB	ROYAL BROWN	RB	30 WHITE	WH



NORANDEX Downspouts

BELOIT PLANT

Downspouts	Part #	Description	Colors	Nom. Gauge/ Thickness	Piece Length	Pieces/ Box	Boxes/ Pallet
	ADS238	Aluminum 2 x 3 x 8' DS	(Listed Below)	0.019	8′	10	28
	ADS238M2	Aluminum 2 x 3 x 8' DS	M2 (Premium Color)	0.019	8′	10	28
	ADS2310	Aluminum 2 x 3 x 10' DS	(Listed Below)	0.019	10′	10	28
	ADS2310M2	Aluminum 2 x 3 x 10' DS	M2 (Premium Color)	0.019	10'	10	28
	ADS2311	Aluminum 2 x 3 x 11' DS	(Listed Below)	0.019	11'	10	28
	ADS348	Aluminum 3 x 4 x 8' DS	(Listed Below)	0.019	8′	10	15
	ADS348M2	Aluminum 3 x 4 x 8' DS	M2 (Premium Color)	0.019	8′	10	15
	ADS3410	Aluminum 3 x 4 x 10' DS	(Listed Below)	0.019	10'	10	15
	ADS3410M2	Aluminum 3 x 4 x 10' DS	M2 (Premium Color)	0.019	10'	10	15
	ADS23410	Aluminum 3 x 4 x 10' DS	AL, BK, BZ, CA, CG, CC, CL, EG, FR, MB, NW, PC, RW, RB, TB, WH, 80, WI	0.024	10′	10	15
	ADS24510	Aluminum 4 x 5 x 10' DS	AL, AI, BK, BZ, CC, CL, ES, FR MB, RB, ST, TB, WH, 80, WI	0.027	10′	6	15
	GDS8238	Galvanized 2 x 3 x 8' Corru	ugated (Steel Colors)	28 ga	8′	10	
	GDS8238PR	Galvanized 2 x 3 x 8' Corru	ugated Prime	28 ga	8′	10	
ADS2310, CDS2310	GDS82310	Galvanized 2 x 3 x 10' Cor	rugated (Steel Colors)	28 ga	10'	10	
AD32310, CD32310	GDS82310PR	Galvanized 2 x 3 x 10' Cor	rugated Prime	28 ga	10'	10	
	GDS82310ML	Galvanized 2 x 3 x 10' Cor	rugated Mill	28 ga	10′	10	
120"	GDS63410	Galvanized 3 x 4 Corrugate	ed (Steel Colors)	26 ga	10'	5	
SEAM	GDS63410PR	Galvanized 3 x 4 Corrugate	ed Prime	26 ga	10′	5	
2"	GDS63410ML	Galvanized 3 x 4 Corrugate	ed Mill	26 ga	10′	5	
ADS3410, ADS23410,	LDS238	Galvalume 2 x 3 x 8' DS	Mill	26 ga	10′	10	
CDS3/110	LDS2310	Galvalume 2 x 3 x 10' DS	Mill	26 ga	10′	10	
(CD33410	LDS348	Galvalume 3 x 4 x 8' DS	Mill	26 ga	10′	10	
120"	LDS3410	Galvalume 3 x 4 x 10' DS	Mill	26 ga	10′	10	
- 4"- SEAM	$\frown \frown \frown$		$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$		\sim		\sim
2"	CDS2310	Copper 2 x 3 x 10' DS	Copper	10 oz	10′ C	rder by the p	pc.
	CDS3410	Copper 3 x 4 x 10' DS	Copper	10 oz	10′ C	rder by the p	pc.
M ADS24510	SEAM	GD\$82310	SEĄ	M / E	\$63410	u	
5" - SEAM		120"	SEAM	12	10"	4"-\s	SEAM

Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

				•					
COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
NX ALMOND	AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC	М3	NX SIERRA	SI
 ALMOND 	AL	 CLASSIC CREAM 	CC	NX GRANITE	GG	REDWOOD	RW	NX SILVER/SILVER GREY	/ SG
ANTIQUE IVORY	ΑI	• CLAY	CL	 HARBOR GREY 	HG	 ROYAL BROWN 	RB	NX TAN	TN
 BEAVER BROWN 	BB	COPPER PENNY	CP	JEFFERSON TAN	JT	NX RUSSET	RT	• TERRA BRONZE	TB
 BLACK 	BK	 COUNTRY BLUE 	CU	NX LINEN	LN	*RUSTIC COPPER	M2	 VICTORIAN GREY 	VG
 BRONZE 	BZ	 DESERT SAND 	DS	• LINEN	LI	SAGE	SA	VILLAGE GREEN	VI
BROOKSTONE	BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
 BUCKSKIN 	BU	EGG SHELL	ES	MUSKET BROWN	MB	NX SAND STONE	SS	• 30 WHITE	WH
 CAMEO 	CA	EVEREST	EV	NORWEGIAN WOOI	NW C	SANDTONE	ST	80 WHITE	80
 NX CHAMPAGNE 	CH	 EVERGREEN 	EG	 PEBBLESTONE CLA 	Y PC				

*Rustic Copper is a PREMIUM color. NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.

Rainware Steel Colors:

COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
BEAVER BROWN	BB	CLASSIC CREAM	CC	EVERGREEN	EG	PEBBLESTONE CLAY	PC	TAHOE BLUE	TA
BLACK	BK	COUNTRY BLUE	CU	HARBOR GREY	HG	PRIME	PR	VICTORIAN GREY	VG
BRONZE	BZ	DESERT SAND	DS	HARVEST BROWN	HV	REDWOOD	RW	WICKER	WI
CHARCOAL GREY	CG	EGGSHELL	ES	MUSKET BROWN	MB	ROYAL BROWN	RB	30 WHITE	WH

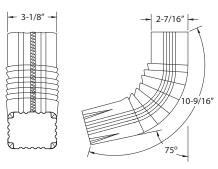


BELOIT PLANT

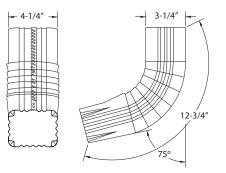
Elbows cont.	Part #	Description	Colors	Nom. Gauge/ Thickness	Piece Length	Pieces/ Box	Boxes/ Pallet
	GAE823	Galv. 2 x 3 A Corrugated	(Steel Colors)	28 ga	10-9/16"	30	32
	GBE823	Galv. 2 x 3 B Corrugated	(Steel Colors)	28 ga	11-1/2"	30	32
	GAE823PR	Galv. 2 x 3 A Corrugated	Prime	28 ga	10-9/16"	30	32
	GBE823PR	Galv. 2 x 3 B Corrugated	Prime	28 ga	11-1/2"	30	32
Variation of the second	GAE823ML	Galv. 2 x 3 A Corrugated	Mill	28 ga	10-9/16"	30	32
	GBE823ML	Galv. 2 x 3 B Corrugated	Mill	28 ga	11-1/2"	30	32
372	GAE634	Galv. 3 x 4 A Corrugated	(Steel Colors)	26 ga	12-3/4"	30	16
	GBE634	Galv. 3 x 4 B Corrugated	(Steel Colors)	26 ga	15"	30	16
	GAE634PR	Galv. 3 x 4 A Corrugated	Prime	26 ga	12-3/4"	30	16
	GBE634PR	Galv. 3 x 4 B Corrugated	Prime	26 ga	15"	30	16
	GAE634ML	Galv. 3 x 4 A Corrugated	Mill	26 ga	12-3/4"	30	16
	GBE634ML	Galv. 3 x 4 B Corrugated	Mill	26 ga	15"	30	16
	LAE23	Galvalume 2 x 3 A's	Mill	26 ga	12-3/4"	30	16
	LBE23	Galvalume 2 x 3 B's	Mill	26 ga	15"	30	16
	LAE34	Galvalume 3 x 4 A's	Mill	26 ga	12-3/4"	30	16
	LBE34	Galvalume 3 x 4 B's	Mill	26 ga	15"	30	16
	CAE23	Copper 2 x 3 A's	Copper	10 oz	10-9/16"	Order by the pc.	
	CBE23	Copper 2 x 3 B's	Copper	10 oz	11-1/2"	Order by the pc.	
	CAE34	Copper 3 x 4 A's	Copper	10 oz	12-3/4"	Order by the pc.	
	CBE34	Copper 3 x 4 B's	Copper	10 oz	15″	Order by the pc.	

NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.

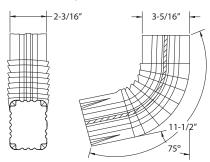
GAE823, CAE23 A-Elbow



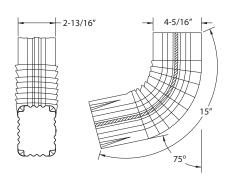
GAE634, CAE34 A-Elbow



GBE823, CAE23 B-Elbow



GBE634, CBE34 B-Elbow



Rainware Steel Colors:

COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
BEAVER BROWN	BB	CLASSIC CREAM	CC	EVERGREEN	EG	PEBBLESTONE CLAY	PC	TAHOE BLUE	TA
BLACK	BK	COUNTRY BLUE	CU	HARBOR GREY	HG	PRIME	PR	VICTORIAN GREY	VG
BRONZE	BZ	DESERT SAND	DS	HARVEST BROWN	HV	REDWOOD	RW	WICKER	WI
CHARCOAL GREY	CG	EGGSHELL	ES	MUSKET BROWN	MB	ROYAL BROWN	RB	30 WHITE	WH



NORANDEX Downspout Accessories

BELOIT PLANT

Round Outlet

Outlets



Oval Outlet



Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box	
AORE23ML	Aluminum 2 x 3 Rectangle Outlet	*	0.019	30	
AORE34ML	Aluminum 3 x 4 Rectangle Outlet	*	0.019	50	
AEORE34ML	Aluminum 3 x 4 Econ. Rectangle Outlet	*	0.016	50	
AORE45ML	Aluminum 4 x 5 Rectangle Outlet	*	0.019	50	
AORO238ML	Aluminum 2-3/8" Round Outlet	*	0.019	250	
AORO234ML	Aluminum 2-3/4" Round Outlet	*	0.019	250	
AORO338ML	Aluminum 3-3/8" Round Outlet	*	0.019	100	
AOOV23ML	Aluminum 2 x 3 Oval Outlet	*	0.019	30	
AOOV34ML	Aluminum 3 x 4 Oval Outlet	*	0.019	50	
AOOVN34ML	Aluminum 3 x 4 Oval Narrow Flange Outlet	*	0.019	50	
GOOV3ML	Galvanized 3" Oval Drop Outlet	Mill	28 ga	50	
GOOV4ML	Galvanized 4" Oval Drop Outlet	Mill	28 ga	50	
					$\overline{}$

CORE23 Copper 2 x 3 Rectangle Outlet Copper 16 oz Order by the pc.

CORE34 Copper 3 x 4 Rectangle Outlet Copper 16 oz Order by the pc.

*NOTE; Aluminum outlets made with mill or painted finish per manufacturer's discretion.

Wire Strainers



Part #	Description	Colors	Pieces/ Box	
GWS3	Galvanized 3" Wire Strainer	Mill	50	
GWS4	Galvanized 4" Wire Strainer	Mill	50	

PVC Adapters



	Part #	Description	Colors	Pieces/ Box	
	APVC233WH	PVC 2 x 3 x 3 Flush Mount Adapter	WH	36	
`	APVC234WH	PVC 2 x 3 x 4 Flush Mount Adapter	WH	22	
	APV6234BK	PVC 2 x 3 x 4 Flush Mount Adapter	BK	12	
	APVC344WH	PVC 3 x 4 x 4 Flush Mount Adapter	WH	24	
	VD/\C3\VBK	DVC 3 v 4 v 4 Flush Mount Adaptor	BV.	12	

Y Adapters



Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box	
AYA23	Aluminum 2 x 3 Y Adapter	RB, WH	0.019	10	
AYA34	Aluminum 3 4 4 Adapter	RB, WH	0.019	10	

Y Diverters



Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box	
AYD23	Aluminum 2 x 3 Y Diverter	RB, WH	0.019	10	
AYD34	Aluminum 3 x 4 Y Diverter	RB, WH	0.019	10	

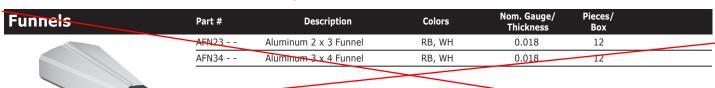
Rainware Aluminum Colors:

COLOR	CODE	COLOR	CODE	COLOR	CODE
BLACK	BK	ROYAL BROWN	RB	WHITE	WH



NORANDEX[®] Downspout Accessories

BELOIT PLANT



ownspout Bands	Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box
	ADSPB34	Alum. Universal 3 x 4 DS Band	(Listed Below)	0.019	100
	ADSPB34M2	Alum. Universal 3 x 4 DS Band N	12 (Premium Color)	0.019	100
	GDSPB23	Galv. 2 x 3 Universal DS Band	(Steel Colors)	28 ga	100
	GDSPB34	Galv. 3 x 4 Universal DS Band	(Steel Colors)	28 ga	100
	ODSPB34NR	Galv. 3/x 4 Universal DS Kank	YPRYYY	28 93	
	CDSPB34	Copper 3 x 4 DS Band	Copper	16 oz	Order by the pc.
	سبب	* * * * * * * * * * * * * * * * * * * *			
wnspout Clips	Part #	Description	Colors	Nom. Gauge/ Thickness	Riechs/ Box
	ADSCP23	Aluminum 2 x 3 Clip	*(Listed Below)	0.032	100
	ADSCP34	Aluminum 3 x 4 Clip	(Listed Below)	0.032	50
	71000101	7 tt a 1 tt tt a 1 tt a	(2.000 20.011)		
	ADSCP34M2		MX (Premium Color)	V0.032 V	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
	_			0.032 16 oz	Order by the pc.
	ADSCP34M2Y CDSCP23	Aluminum 3 x 4 CNp 1	(Premium Color) Copper	- 0.002	
wnspout Cleats	ADSCP34M2Y CDSCP23	Alumnum 3 x 4 Chp I Copper 2 x 3 Clip	(Premium Color) Copper	- 0.002	

Pairs/ **Downspout Hinges** Pieces/ Part # Description Colors AZHWH Aluminum 2 x 3 / 3 x 4 Zip Hinge 12 pairs 240 pairs GDHA23WH Galvanized 2 x 3 A Hinge WH 12 GDHA34WH Galvanized 3 x 4 A Hinge WH 12 GDHB23WH Galvanized 2 x 3 B Hinge WH 12 GDHB34WH Galvanized 3 x 4 B Hinge WH 12

Splash Blocks	Part #	Description	Colors	Pieces/ Box	
	SBGN	Splash Block - Green	GN	Order by the pc. 10 pcs./box	

Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
NX ALMOND	AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC	М3	NX SIERRA	SI
 ALMOND 	AL	 CLASSIC CREAM 	CC	 NX GRANITE 	GG	REDWOOD	RW	 NX SILVER/SILVER GREY 	/ SG
ANTIQUE IVORY	ΑI	CLAY	CL	 HARBOR GREY 	HG	ROYAL BROWN	RB	NX TAN	TN
 BEAVER BROWN 	BB	COPPER PENNY	CP	JEFFERSON TAN	JT	NX RUSSET	RT	TERRA BRONZE	TB
BLACK	BK	COUNTRY BLUE	CU	NX LINEN	LN	★RUSTIC COPPER	M2	VICTORIAN GREY	VG
BRONZE	BZ	DESERT SAND	DS	• LINEN	LI	SAGE	SA	VILLAGE GREEN	VI
BROOKSTONE	BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
BUCKSKIN	BU	EGG SHELL	ES	 MUSKET BROWN 	MB	NX SAND STONE	SS	• 30 WHITE	WH
CAMEO	CA	EVEREST	EV	 NORWEGIAN WOOL 	NW C	SANDTONE	ST	80 WHITE	80
 NX CHAMPAGNE 	CH	• EVERGREEN	EG	PEBBLESTONE CLA	Y PC				

*Rustic Copper is a PREMIUM color. NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.



BELOIT PLANT

Extreme™ Miters Part # Description Colors Nom. Gauge/ Thickness Box AEM5 - Aluminum 5" Extreme™ Miter RB, WH, 80 0.019 10



Box Miter Outside

Box Miters	Part #	
	ABM5I	Alum
	ABM5IM2	Alum
	ABM50	Alum
	ABM5OM2	Alum
	ABM6I	Alum
Box Miter Inside	ABM6IM2	Alum
	ABM60	Alum
	ABM6OM2	Alum
	GBM5I	Galva
	GBM5IPR	Galva
	GBM50	Galva
	GBM5OPR	Galva

Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box
ABM5I	Aluminum 5" Inside	(Listed Below)	0.019	20
ABM5IM2	Aluminum 5" Inside	M2 (Premium Color)	0.019	20
ABM50	Aluminum 5" Outside	(Listed Below)	0.019	20
ABM5OM2	Aluminum 5" Outside	M2 (Premium Color)	0.019	20
ABM6I	Aluminum 6" Inside	(Listed Below)	0.019	20
ABM6IM2	Aluminum 6" Inside	M2 (Premium Color)	0.019	20
ABM60	Aluminum 6" Outside	(Listed Below)	0.019	20
ABM6OM2	Aluminum 6" Outside	M2 (Premium Color)	0.019	20
GBM5I	Galvanized 5" Inside	(Steel Colors)	28 ga	20
GBM5IPR	Galvanized 5" Inside	Prime	28 ga	20
GBM50	Galvanized 5" Outside	(Steel Colors)	28 ga	20
GBM5OPR	Galvanized 5" Outside	Prime	28 ga	20
GBM6I	Galvanized 6" Inside	RB, WH	28 ga	20
GBM6IPR	Galvanized 6" Inside	Prime	28 ga	20
GBM60	Galvanized 6" Outside	RB, WH	28 ga	20
GBM6OPR	Galvanized 6" Outside	Prime	28 ga	20
LBM6I	Galvalume 6" Inside	Mill	26 ga	20
LBM60	Galvalume 6" Outside	Mill	26 ga	20
CBM5I	Copper 5" Inside	Copper	16 oz	Order by the pc.
CBM50	Copper 5" Outside	Copper	16 oz	Order by the pc.
CBM6I	Copper 6" Inside	Copper	16 oz	Order by the pc.
CBM60	Copper 6" Outside	Copper	16 oz	Order by the pc.

Bay Miters 45° Inside Bay Miters 45° Outside

Bay Miters

Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box
ABY5I	Aluminum 5" Inside	(Listed Below)	0.019	20
ABY5IM2	Aluminum 5" Inside	M2 (Premium Color)	0.019	20
ABY50	Aluminum 5" Outside	(Listed Below)	0.019	20
ABY5OM2	Aluminum 5" Outside	M2 (Premium Color)	0.019	20
ABY6I	Aluminum 6" Inside	(Listed Below)	0.019	20
ABY6IM2	Aluminum 6" Inside	M2 (Premium Color)	0.019	20
ABY60	Aluminum 6" Outside	(Listed Below)	0.019	20
ABY6OM2	Aluminum 6" Outside	M2 (Premium Color)	0.019	20
ABY7I	Aluminum 7" Outside	BZ, CC, RB, ST, WH, 80	0.027	20
ABY70	Aluminum 7" Outside	BZ, CC, RB, ST, WH, 80	0.027	20
LBY5I	Galvalume 5" Inside	Mill	26 ga	20
LBY50	Galvalume 5" Outside	Mill	26 ga	20
LBY6I	Galvalume 6" Inside	Mill	26 ga	20
LBY6O	Galvalume 6" Outside	Mill	26 ga	20
CBY5I	Copper 5" Inside	Copper	16 oz	Order by the pc.
CBY50	Copper 5" Outside	Copper	16 oz	Order by the pc.
CBY6I	Copper 6" Inside	Copper	16 oz	Order by the pc.
CBY6O	Copper 6" Outside	Copper	16 oz	Order by the pc.

Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC	М3	NX SIERRA	SI
AL	CLASSIC CREAM	CC	NX GRANITE	GG	REDWOOD	RW	 NX SILVER/SILVER GREY 	' SG
ΑI	• CLAY	CL	 HARBOR GREY 	HG	 ROYAL BROWN 	RB	NX TAN	TN
BB	COPPER PENNY	CP	JEFFERSON TAN	JT	NX RUSSET	RT	• TERRA BRONZE	TB
BK	COUNTRY BLUE	CU	NX LINEN	LN	★RUSTIC COPPER	M2	VICTORIAN GREY	VG
BZ	DESERT SAND	DS	• LINEN	LI	SAGE	SA	VILLAGE GREEN	VI
BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
BU	EGG SHELL	ES	 MUSKET BROWN 	MB	NX SAND STONE	SS	• 30 WHITE	WH
CA	EVEREST	EV	NORWEGIAN WOOD) NW	SANDTONE	ST	80 WHITE	80
CH	 EVERGREEN 	EG	PEBBLESTONE CLA	Y PC				
	AD AL AI BB BK BZ BS BU CA	AD AD AL AI AI CLASSIC CREAM AI CLAY BB COPPER PENNY BK COUNTRY BLUE BZ DESERT SAND BS NX DUNE BU EGG SHELL CA EVEREST	AD	AD CHARCOAL GREY CG FROST AL CLASSIC CREAM CC NX GRANITE AI CLAY CL HARBOR GREY BB COPPER PENNY CP JEFFERSON TAN BK COUNTRY BLUE CU NX LINEN BZ DESERT SAND DS LINEN BS NX DUNE CD MONTANA SUEDE BU EGG SHELL ES MUSKET BROWN CA EVEREST EV NORWEGIAN WOOD	AD CHARCOAL GREY CG FROST FR AL CLASSIC CREAM CC NX GRANITE GG AI CLAY CL HARBOR GREY HG BB COPPER PENNY CP JEFFERSON TAN JT BK COUNTRY BLUE CU NX LINEN LN BZ DESERT SAND DS LINEN LI BS NX DUNE CD MONTANA SUEDE MS BU EGG SHELL ES MUSKET BROWN MB CA EVEREST EV NORWEGIAN WOOD NW	AD CHARCOAL GREY CG FROST FR PG METALLIC AL CLASSIC CREAM CC NX GRANITE GG REDWOOD AI CLAY CL HARBOR GREY HG ROYAL BROWN BB COPPER PENNY CP JEFFERSON TAN JT NX RUSSET BK COUNTRY BLUE CU NX LINEN LN *RUSTIC COPPER BZ DESERT SAND DS LINEN LI SAGE BS NX DUNE CD MONTANA SUEDE MS NX SAND BU EGG SHELL ES MUSKET BROWN MB NX SAND STONE CA EVEREST EV NORWEGIAN WOOD NW SANDTONE	AD	AD CHARCOAL GREY CG FROST FR PG METALLIC M3 AL CLASSIC CREAM CC NX GRANITE GG REDWOOD RW NX SILVER/SILVER GREY AI CLAY CL HARBOR GREY HG ROYAL BROWN RB NX TAN BB COPPER PENNY CP JEFFERSON TAN JT NX RUSSET RT TERRA BRONZE BK COUNTRY BLUE CU NX LINEN LN *RUSTIC COPPER M2 VICTORIAN GREY BZ DESERT SAND DS LINEN LI SAGE SA VILLAGE GREEN BS NX DUNE CD MONTANA SUEDE MS NX SAND SD BU EGG SHELL ES MUSKET BROWN MB NX SAND STONE SS CA EVEREST EV NORWEGIAN WOOD NW SANDTONE ST BO WHITE



NORANDEX Strip Miters & Joints

BELOIT PLANT

Strip Miters



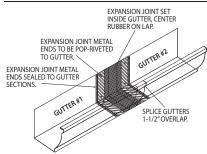


Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box
ASM5I	Aluminum 5" Inside	(Listed Below)	0.027	20
ASM5IM2	Aluminum 5" Inside	M2 (Premium Color)	0.027	20
ASM50	Aluminum 5" Outside	(Listed Below)	0.027	20
ASM50M2	Aluminum 5" Outside	M2 (Premium Color)	0.027	20
ASM6I	Aluminum 6" Inside	(Listed Below)	0.027	20
ASM6IM2	Aluminum 6" Inside	M2 (Premium Color)	0.027	20
ASM60	Aluminum 6" Outside	(Listed Below)	0.027	20
ASM6OM2	Aluminum 6" Outside	M2 (Premium Color)	0.027	20
ASM7I	Aluminum 7" Inside	BZ, CC, RB, ST, WH, 80	0.027	20
ASM70	Aluminum 7" Outside	BZ, CC, RB, ST, WH, 80	0.027	20
LSM5I	Galvalume 5" Inside	Mill	26 ga	20
LSM50	Galvalume 5" Outside	Mill	26 ga	20
LSM6I	Galvalume 6" Inside	Mill	26 ga	20
LSM60	Galvalume 6" Outside	Mill	26 ga	20
CSM5I	Copper 5" Inside	Copper	16 oz	Order by the pc.
CSM50	Copper 5" Outside	Copper	16 oz	Order by the pc.
CSM6I	Copper 6" Inside	Copper	16 oz	Order by the pc.
CSM60	Copper 6" Outside	Copper	16 oz	Order by the pc.

Expansion Joints



Part #	Description	Colors	Nom. Gauge/ Thickness	Pieces/ Box	
AEJ5ML	Aluminum 5" Expansion Joint	Mill	0.030	12	
AEJ6ML	Aluminum 6" Expansion Joint	Mill	0.030	12	

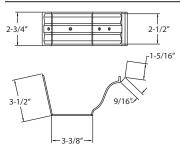


A 40' section of gutter can potentially expand almost 2/3 of an inch from winter to summer moving the fasteners back and forth until the gutter falls down. Expansion joints are a preventive measure for excessive movement in the gutter, and should be mounted in place every 40' of exceptionally long gutter runs.

Slip Joints

1000

Part #	Description	Colors	Thickness	Box	
ASJC5	Aluminum 5" Slip Joint	RB, WH	0.019	Order by the pc.	



Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

				•					
COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
NX ALMOND	AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC	М3	NX SIERRA	SI
ALMOND	AL	CLASSIC CREAM	CC	NX GRANITE	GG	 REDWOOD 	RW	 NX SILVER/SILVER GRI 	EY* SG
ANTIQUE IVORY	ΑI	• CLAY	CL	 HARBOR GREY 	HG	 ROYAL BROWN 	RB	• NX TAN*	TN
 BEAVER BROWN 	BB	COPPER PENNY*	CP	JEFFERSON TAN	JT	 NX RUSSET 	RT	 TERRA BRONZE 	TB
BLACK	BK	COUNTRY BLUE	CU	NX LINEN	LN	★RUSTIC COPPER	M2	 VICTORIAN GREY* 	` VG
BRONZE	BZ	DESERT SAND	DS	• LINEN	LI	SAGE*	SA	VILLAGE GREEN*	VI
BROOKSTONE*	BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
BUCKSKIN	BU	EGG SHELL*	ES	 MUSKET BROWN 	MB	 NX SAND STONE 	SS	• 30 WHITE	WH
CAMEO	CA	EVEREST	EV	NORWEGIAN WOO	D NW	 SANDTONE 	ST	80 WHITE	80
NX CHAMPAGNE	CH	EVERGREEN	EG	PEBBLESTONE CLA	Y PC				

*Rustic Copper is a PREMIUM color. NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.



BELOIT PLANT

Pieces/ Nom. Gauge/ Piece End Caps Part # Description Colors Thickness Length Box AEC5L - -Aluminum 5" Left End Cap (Listed Below) 0.019 5" 50 AEC5LM2 Aluminum 5" Left End Cap M2 (Premium Color) 0.019 5" 50 5" AEC5R - -Aluminum 5" Right End Cap (Listed Below) 0.019 50 AEC5RM2 Aluminum 5" Right End Cap 0.019 5" 50 Right M2 (Premium Color) End Cap AEC6L - -Aluminum 6" Left End Cap (Listed Below) 0.019 6" 50 AEC6LM2 Aluminum 6" Left End Cap M2 (Premium Color) 0.019 6" 50 AEC6R - -Aluminum 6" Right End Cap (Listed Below) 0.019 6" 50 6" AEC6RM2 Aluminum 6" Right End Cap 0.019 50 M2 (Premium Color) AEC7L - -Aluminum 7" Left End Cap BZ, CC, RB, ST, WH, 80 0.027 7" 50 Left Aluminum 7" Right End Cap 7" AEC7R - -BZ, CC, RB, ST, WH, 80 0.027 50 End Cap BB, BK, BZ, CC, CG, CU, DS, EG, HG, GEC5L - -Galv. 5" Left End Cap K 28 ga 5" 50 MB, PC, PR, RW, RB, TA, VG, WI, WH GEC5LPR Galv. 5" Left End Cap K 5" 28 ga 50 Prime BB, BK, BZ, CC, CG, CU, DS, EG, HG, GEC5R - -5" Galv. 5" Right End Cap K 28 ga 50 MB, PC, PR, RW, RB, TA, VG, WI, WH GEC5RPR 5" Galv. 5" Right End Cap K Prime 28 ga 50 GEC5LML Galvanized 5" Left End Cap K Mill 28 ga 5" 50 5" GEC5RML Galvanized 5" Left End Cap K Mill 28 ga 50 (Steel Colors) GEC6L - -Galvanized 6" Left End Cap K 28 ga 6" 50 GEC6LPR Galvanized 6" Left End Cap K 28 ga 6" 50 Prime (Steel Colors) 28 ga 6" GEC6R - · Galvanized 6" Right End Cap K 50

Galvanized 6" Right End Cap K

Galvalume 5" Left End Cap

Galvalume 5" Right End Cap

Galvalume 6" Left End Cap

Galvalume 6" Right End Cap

Copper 5" Left End Cap

Copper 5" Right End Cap

Copper 6" Left End Cap

Copper 6" Right End Cap

Rainware & Accessories Aluminum Colors | ●=Color-Thru System™

GEC6RPR

LEC5L

LEC5R

LEC6L

LEC6R

CEC5L

CEC5R

CEC6L

CEC6R

				•					
COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
NX ALMOND	AD	CHARCOAL GREY	CG	FROST	FR	PG METALLIC	М3	NX SIERRA	SI
 ALMOND 	AL	CLASSIC CREAM	CC	NX GRANITE	GG	REDWOOD	RW	NX SILVER/SILVER GREY	/ SG
ANTIQUE IVORY	ΑI	• CLAY	CL	 HARBOR GREY 	HG	 ROYAL BROWN 	RB	NX TAN	TN
 BEAVER BROWN 	BB	COPPER PENNY	CP	JEFFERSON TAN	JT	NX RUSSET	RT	TERRA BRONZE	TB
 BLACK 	BK	 COUNTRY BLUE 	CU	NX LINEN	LN	*RUSTIC COPPER	M2	VICTORIAN GREY	VG
 BRONZE 	BZ	DESERT SAND	DS	• LINEN	LI	SAGE	SA	VILLAGE GREEN	VI
BROOKSTONE	BS	NX DUNE	CD	MONTANA SUEDE	MS	NX SAND	SD	WICKER	WI
 BUCKSKIN 	BU	EGG SHELL	ES	 MUSKET BROWN 	MB	NX SAND STONE	SS	• 30 WHITE	WH
 CAMEO 	CA	EVEREST	EV	NORWEGIAN WOOD	NW	SANDTONE	ST	80 WHITE	80
 NX CHAMPAGNE 	CH	EVERGREEN	EG	PEBBLESTONE CLAY	/ PC				

*Rustic Copper is a PREMIUM color. NOTE: Rustic Copper (M2) accessories, including miters and end caps, may display paint finish variations due to the metallic painting process, which may affect matching components.

Rainware Steel Colors:

COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE	COLOR	CODE
BEAVER BROWN	BB	CLASSIC CREAM	CC	HARBOR GREY	HG	REDWOOD	RW	WICKER	WI
BLACK	BK	COUNTRY BLUE	CU	MUSKET BROWN	MB	ROYAL BROWN	RB	30 WHITE	WH
BRONZE	BZ	DESERT SAND	DS	PEBBLESTONE CLAY	PC	TAHOE BLUE	TA	80 WHITE	80
CHARCOAL GREY	CG	EVERGREEN	EG	PRIME	PR	VICTORIAN GREY	VG		

28 ga

26 ga

26 ga

26 ga

26 ga

10 oz

10 07

10 oz

10 07

Prime

Mill

Mill

Mill

Mill

Copper

Copper

Copper

Copper

6"

5"

5"

6"

6"

5

5"

6"

50

50

50

50

50

Order by the pc.

Order by the pc.

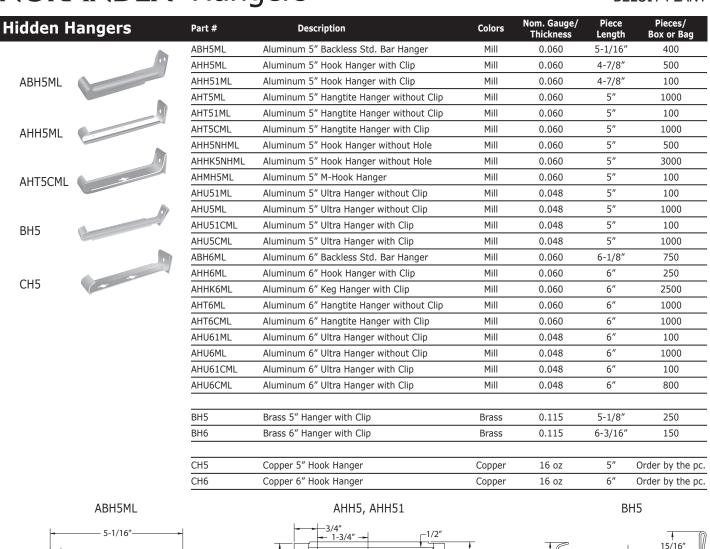
Order by the pc.

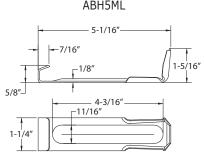
Order by the pc.

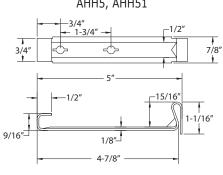


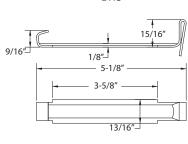
NORANDEX[®] Hangers

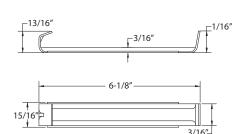
BELOIT PLANT



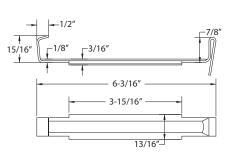




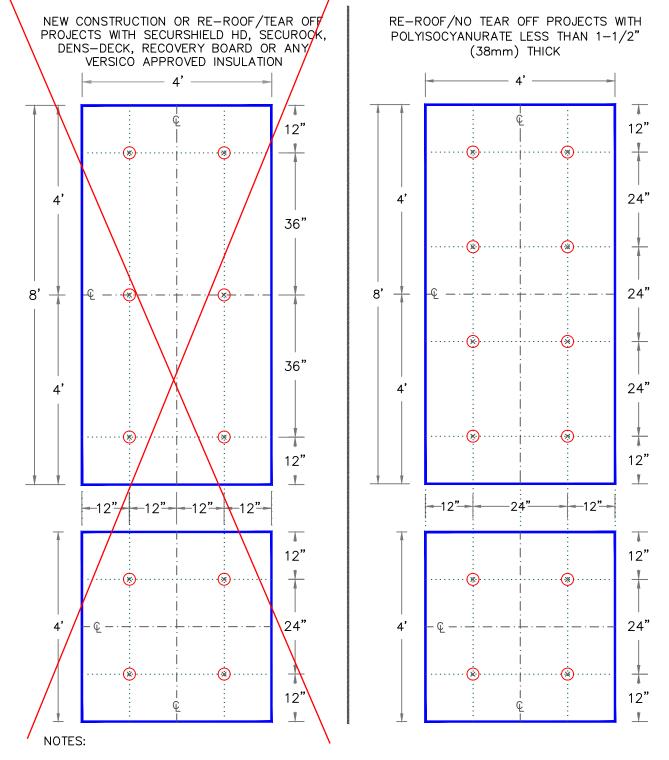




ABH6ML



BH₆

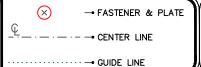


FOR CRITERIA ON INSULATION FASTENERS AND PLATES, REFER TO VERSICO SPECIFICATIONS.
 25 AND 30-YEAR WARRANTY PROJECTS REQUIRE COMPLETE TEAR OFF.

FEET TO M	ILLIMETERS			INCHES TO MILLIMETERS															
4'	8'	inch	1/4"	1/2"	3/4"	1"	1.5"	2"	2.5"	3"	4"	5"	6"	7"	8"	9"	10"	11"	12"
1219	2438	mm	6	13	19	25	38	51	63	76	102	127	152	178	203	229	254	279	305



INSULATION/COVER
BOARD ATTACHMENT FOR
PROJECTS EXCEEDING
15-YEAR WARRANTIES



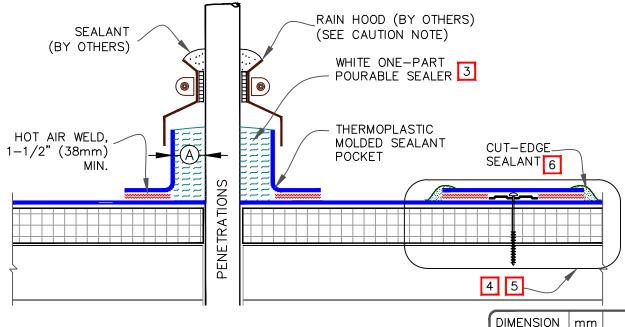
MECHANICALLY ATTACHED SYSTEM

MA - 27.2

AUTION

NOTES:

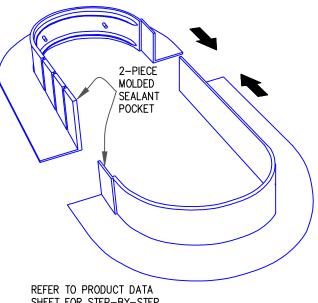
MOLDED SEALANT POCKETS MUST BE USED IN CONJUNCTION WITH RAIN HOODS FOR PROJECTS WITH 25 AND 30-YEAR WARRANTIES.



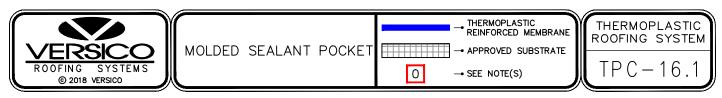
- TEMPERATURE OF PIPE MUST NOT EXCEED 160° F (71° C).
- 2. WHEN USING TPO MOLDED SEALANT POCKET, TPO PRIMER MUST BE APPLIED TO ALL INSIDE SURFACES AND PENETRATIONS PRIOR TO FILLING WITH SEALANT. WHEN USING PVC MOLDED SEALANT POCKET, CLEAN THE POCKET WITH PVC CLEANER, APPLY TPO PRIMER TO PENETRATION(S) ONLY.
- FILL POCKET COMPLETELY WITH WHITE ONE—PART POURABLE SEALER UNTIL RIM IS COVERED WITH SEALANT; ENSURE ALL VOIDS ARE FILLED.
- 4. ON MECHANICALLY—ATTACHED SYSTEMS, INSTALL A MINIMUM OF 4 FASTENING PLATES AROUND SEALANT POCKETS WITH A DIAMETER UP TO 6" (152mm). ADDITIONAL FASTENING PLATES WILL BE REQUIRED FOR SEALANT POCKETS GREATER THAN 6" IN DIAMETER AND SHALL BE SPACED 12" (305 mm) ON CENTER MAXIMUM. FASTENERS/PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS SEALANT POCKET DIAMETER EXCEEDS 12" (305mm).
- REFER TO VERSICO SPECIFICATIONS FOR PROPER FASTENERS AND PLATES.
- APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.

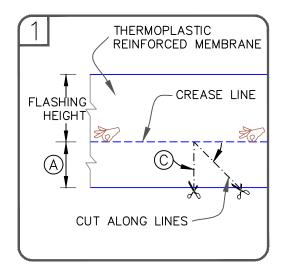
A 1" 25 MIN.

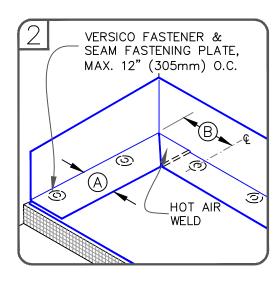
PLACE MOLDED THERMOPLASTIC SEALANT POCKET AROUND PENETRATION AND OVERLAP THE TWO SECTIONS

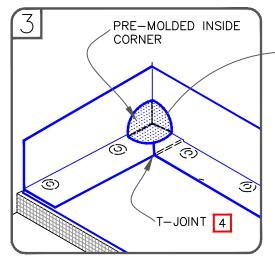


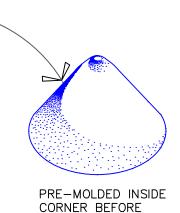
REFER TO PRODUCT DATA SHEET FOR STEP-BY-STEP INSTALLATION PROCEDURES







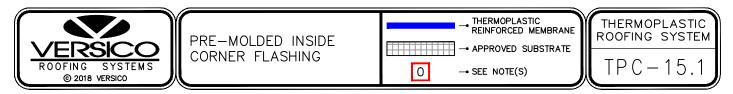




INSTALLATION

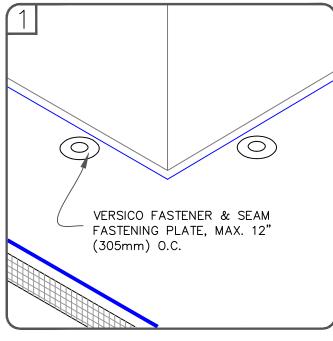
- 1. POSITION FASTENING PLATES 6" TO 9" (152 TO 229mm)
 FROM THE CORNER AND 1/2" TO 1" (13 TO 25mm) FROM
 EDGE OF MEMBRANE.
- 2. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 3. REFER TO VERSICO SPECIFICATIONS FOR ACCEPTABLE VERSICO FASTENERS AND PLATES.
- 4. WHEN USING 60 OR 80-MIL MEMBRANE, APPLY A 4-1/2" (114mm) DIAMETER "T-JOINT" COVER AT ALL FIELD SPLICE INTERSECTIONS.

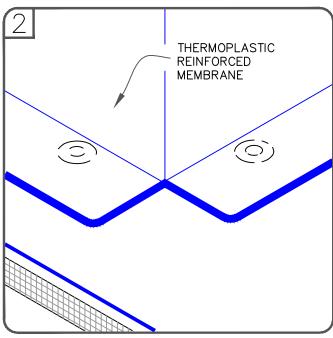
DIME	NSIONS	mm					
\bigcirc	6"	152	APPROX.				
$^{\otimes}$	6"-9"	152-229					
0	45-DEGREES APPROX.						

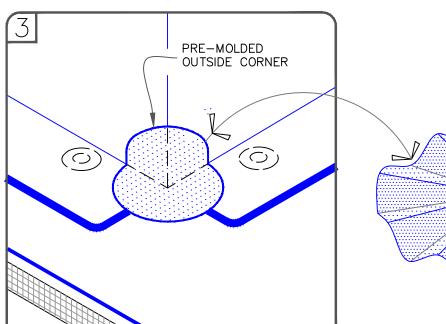


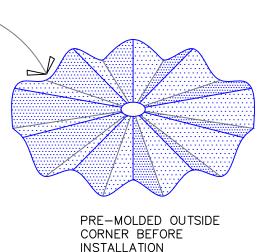




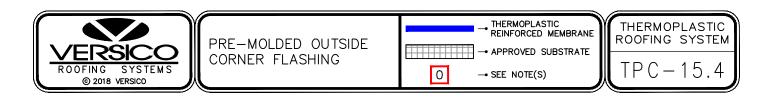






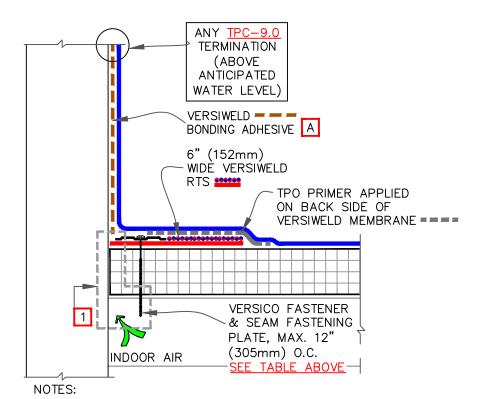


- POSITION FASTENING PLATES 6" (152mm) FROM THE CORNER AND 1/2" TO 1" (13 TO 25mm) FROM EDGE OF MEMBRANE.
- APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 3. REFER TO VERSICO SPECIFICATIONS FOR ACCEPTABLE VERSICO FASTENERS AND PLATES.



CAUTION

WHEN A WARRANTY WIND SPEED GREATER THAN 90MPH IS SPECIFIED, VERSICO FASTENERS AND SEAM FASTENING PLATES SHALL NOT EXCEED 6" (152mm) ON CENTER FOR ADHERED MEMBRANE ASSEMBLIES.

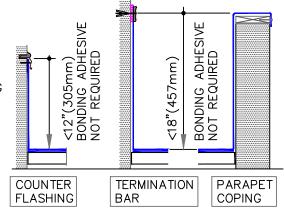


FASTENER TYPES ON MECHANICALLY FASTENED ROOF ASSEMBLY						
DECK TYPE	FASTENERS	PLATES				
	HPVX	HPVX				
STEEL & WOOD DECK	OR					
	HPV-XL	HPV-XL				
CONCRETE DECK	CD-10 OR MP 14-10	HPVX				



- 1. REFER TO SPECIAL CONDITION SPEC. SUPPLEMENT:
 - 1.1. TO BLOCK INDOOR AIR INFILTRATION AND HUMIDITY AT THE JUNCTION (G-01-17).
 - 1.2. WHERE ROOF SYSTEM IS DESIGNED WITH A VAPOR RETARDER (G-08-17).
- FOR INSIDE CORNER AND RTS APPLICATION SEE TPC-12.2B.
- 3. IN A CASE WHERE FASTENERS MUST BE FASTENED INTO THE VERTICAL SURFACE, CARE MUST BE TAKEN TO CREASE THE RTS AS WELL AS THE MEMBRANE TIGHTLY INTO THE ANGLE CHANGE TO MAXIMIZE CONTACT BETWEEN THE TAPE AND MEMBRANE. MEMBRANE MUST BE ADHERED TO THE FULL WIDTH OF THE TAPE. PLACING THE PLATES TIGHT INTO THE ANGLE CHANGE WILL HELP HOLD THE RTS IN THE PROPER POSITION.

TPO MEMBRANE ONLY
USE OF CAV-GRIP ADHESIVE
MAY ALSO BE USED FOR UP
TO 20 YEAR WARRANTY





PARAPET FLASHING WITH PRESSURE-SENSITIVE RUSS, PAGE 1 OF 2

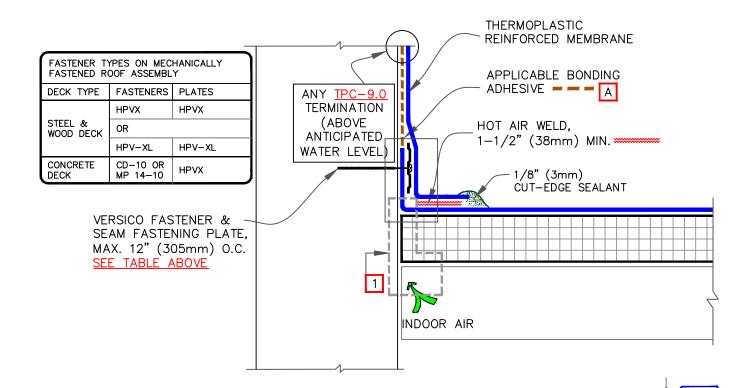


THERMOPLASTIC ROOFING SYSTEM

TPC-12.2A

SAUTION

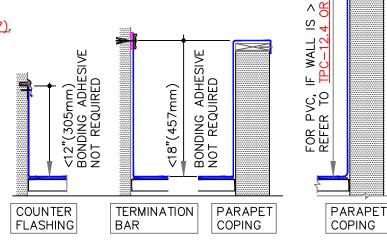
WHEN A WARRANTY WIND SPEED GREATER THAN 90MPH IS SPECIFIED, VERSICO FASTENERS AND SEAM FASTENING PLATES SHALL NOT EXCEED 6" (152mm) ON CENTER FOR ADHERED MEMBRANE ASSEMBLIES.



NOTES:

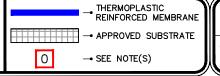
- REFER TO SPECIAL CONDITION <u>SPEC</u> SUPPLEMENTS:
 - 1.1. TO BLOCK INDOOR AIR INFILTRATION AND HUMIDITY AT THE JUNCTION (G-01-17).
 - 1.2. WHERE ROOF SYSTEM IS DESIGNED WITH A VAPOR RETARDER (G-08-17).
- 2. IN A CASE WHERE FASTENERS MUST BE FASTENED INTO THE VERTICAL SURFACE, CARE MUST BE TAKEN TO CREASE THE MEMBRANE TIGHTLY INTO THE ANGLE CHANGE. PLACING THE PLATES TIGHT INTO THE ANGLE CHANGE WILL HELP HOLD THE MEMBRANE IN THE PROPER POSITION.

TPO MEMBRANE ONLY
USE OF CAV-GRIP ADHESIVE
MAY ALSO BE USED FOR UP
TO 20 YEAR WARRANTY





PARAPET FLASHING



THERMOPLASTIC ROOFING SYSTEM

(1219mm),

48

PC - 12.1A

(1219mm),

48,

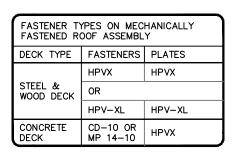
٧ ٣

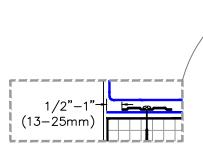
PARAPET

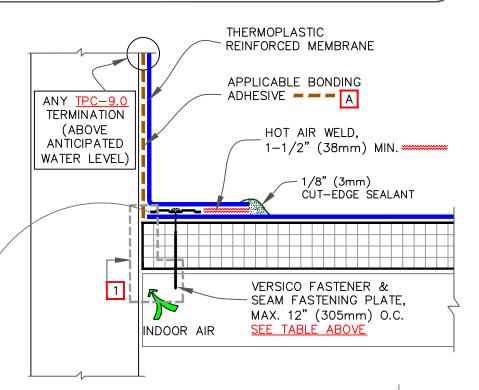
COPING

SAUTION

WHEN A WARRANTY WIND SPEED GREATER THAN 90MPH IS SPECIFIED, VERSICO FASTENERS AND SEAM FASTENING PLATES SHALL NOT EXCEED 6" (152mm) ON CENTER FOR ADHERED MEMBRANE ASSEMBLIES.



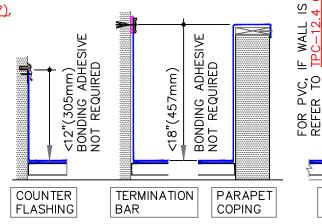


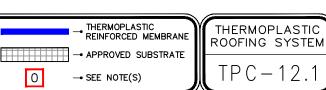


NOTES:

- REFER TO SPECIAL CONDITION <u>SPEC</u> SUPPLEMENTS:
 - 1.1. TO BLOCK INDOOR AIR INFILTRATION AND HUMIDITY AT THE JUNCTION (G-01-17).
 - 1.2. WHERE ROOF SYSTEM IS DESIGNED WITH A VAPOR RETARDER (G-08-17).
- 2. IN A CASE WHERE FASTENERS MUST BE FASTENED INTO THE VERTICAL SURFACE, CARE MUST BE TAKEN TO CREASE THE MEMBRANE TIGHTLY INTO THE ANGLE CHANGE. PLACING THE PLATES TIGHT INTO THE ANGLE CHANGE WILL HELP HOLD THE MEMBRANE IN THE PROPER POSITION.

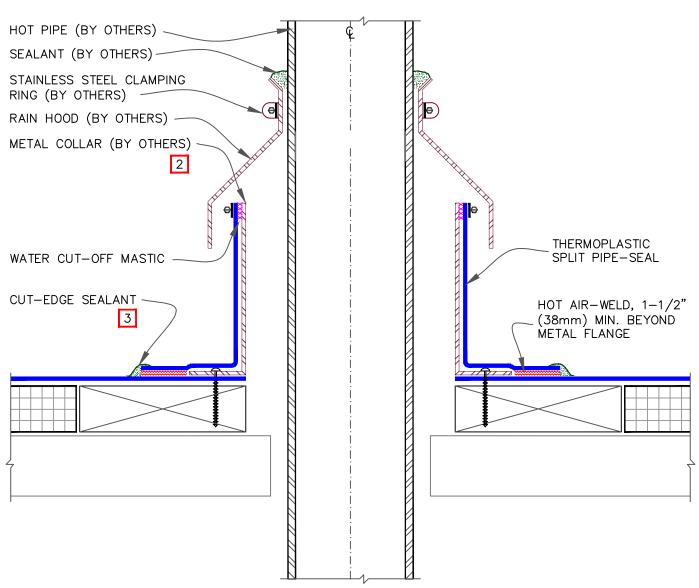
TPO MEMBRANE ONLY
USE OF CAV-GRIP ADHESIVE
MAY ALSO BE USED FOR UP
TO 20 YEAR WARRANTY



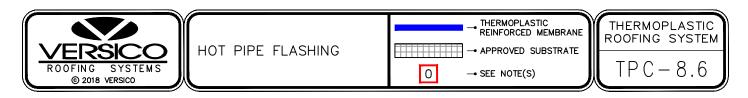


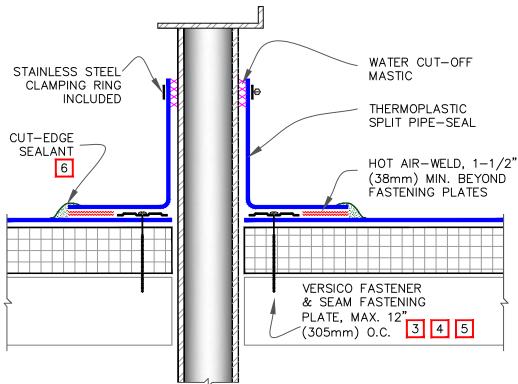


PARAPET FLASHING



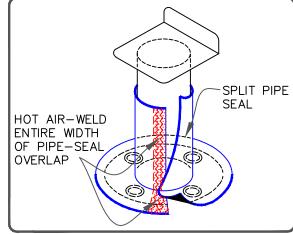
- 1. REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING PIPE FLASHING.
- 2. TEMPERATURE OF THE METAL COLLAR MUST NOT EXCEED 140°F (60°C) WHEN USING PVC AND 160°F (71°C) WHEN USING TPO.
- 3. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 4. REGARDLESS OF THE FIELD MEMBRANE THICKNESS, THERMOPLASTIC "T-JOINT" COVERS ARE REQUIRED OVER THE SPLICE INTERSECTIONS OF THE SPLIT PIPE SEAL. (IF PRE-FABRICATED SPLIT PIPE SEAL IS A "CFA" LABELED PART, NO "T-JOINT" COVERS ARE REQUIRED.



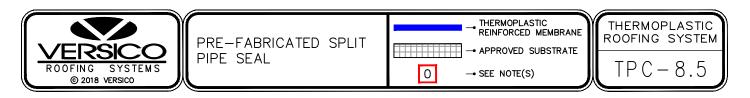


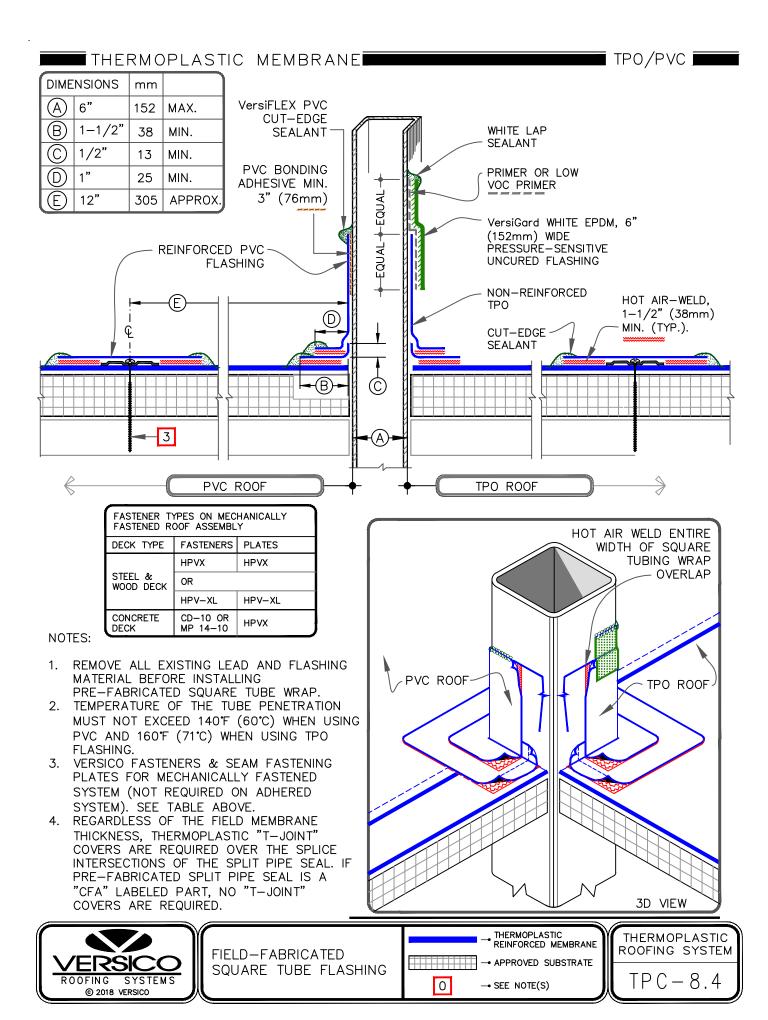
 REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING SPLIT PIPE FLASHING.

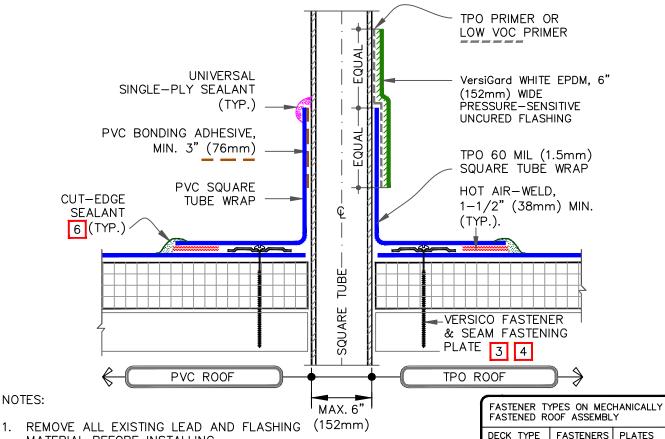
- 2. TEMPERATURE OF THE PIPE PENETRATION MUST NOT EXCEED 140°F (60°C) WHEN USING PVC AND 160°F (71°C) WHEN USING TPO.
- 3. INSTALL A MINIMUM OF 4 FASTENERS AND PLATES AROUND THE PIPE, EQUALLY SPACED. IF FASTENERS AND PLATES CANNOT BE INSTALLED AS SHOWN, THEY MAY ALSO BE POSITIONED OUTSIDE THE PIPE MAXIMUM 12" (305mm) O.C. AND FLASHED WITH THERMOPLASTIC REINFORCED MEMBRANE/CUT-EDGE SEALANT. REFER TO DETAIL TPC-8.2.
- 4. FASTENERS AND PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18" (457mm).



- 5. ON MECHANICALLY ATTACHED SYSTEMS, HPVX FASTENERS AND PLATES OR HPV-XL FASTENERS AND PLATES ARE REQUIRED OVER STEEL AND WOOD DECKS. ON CONCRETE DECKS, CD-10 OR MP 14-10 FASTENERS ARE USED WITH HPVX PLATES.
- 6. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 7. REGARDLESS OF THE FIELD MEMBRANE THICKNESS, THERMOPLASTIC "T-JOINT" COVERS ARE REQUIRED OVER THE SPLICE INTERSECTIONS OF THE SPLIT PIPE SEAL. IF PRE-FABRICATED SPLIT PIPE SEAL IS A "CFA" LABELED PART, NO "T-JOINT" COVERS ARE REQUIRED.



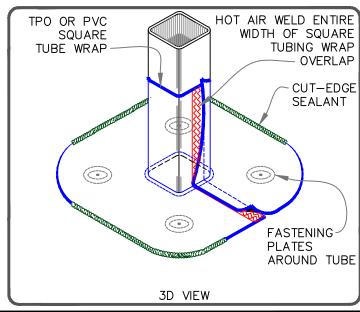




 REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING PRE-FABRICATED SQUARE TUBE WRAP.

2. TEMPERATURE OF THE PIPE PENETRATION MUST NOT EXCEED 140°F (60°C) WHEN USING PVC AND 160°F (71°C) WHEN USING TPO FLASHING.

- INSTALL A MINIMUM OF 4 SEAM FASTENING PLATES FOR TUBE SIDE DIMENSIONS UP TO 6" (152mm).
- FASTENERS AND PLATES ARE NOT REQUIRED ON ADHERED SYSTEM. SEE TABLE FOR MF SYSTEM.
- 5. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 6. REGARDLESS OF THE FIELD MEMBRANE THICKNESS, THERMOPLASTIC "T-JOINT" COVERS ARE REQUIRED OVER THE SPLICE INTERSECTIONS OF THE SPLIT PIPE SEAL. IF PRE-FABRICATED SPLIT PIPE SEAL IS A "CFA" LABELED PART, NO "T-JOINT" COVERS ARE REQUIRED.



STEEL & WOOD DECK

CONCRETE

DECK

HPVX

HPV-XL

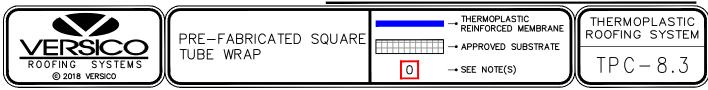
CD-10 OR MP 14-10

OR

HPVX

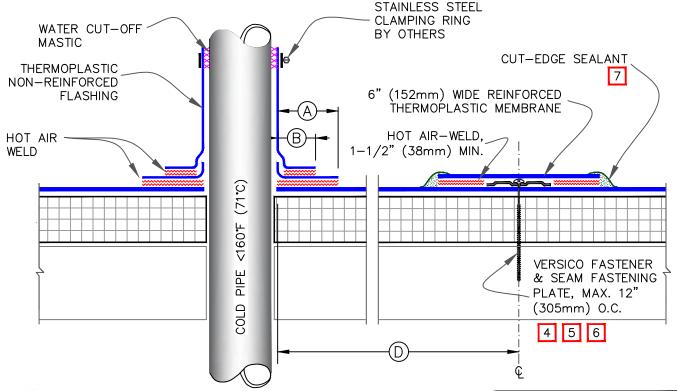
HPV-XL

HPVX



AUTION:

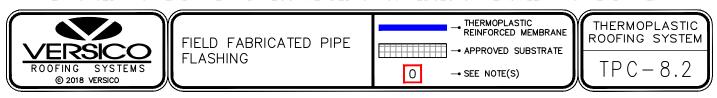
DETAIL NOT FOR USE ON 25 OR 30-YEAR WARRANTY PROJECTS, PRE-FABRICATED/PRE-MOLDED ACCESSORIES MUST BE UTILIZED. ACCEPTABLE PIPE FLASHINGS SHALL CONFORM WITH THERMOPLASTIC COMMON DETAILS TPC-8.1, 8.3 OR 8.4.

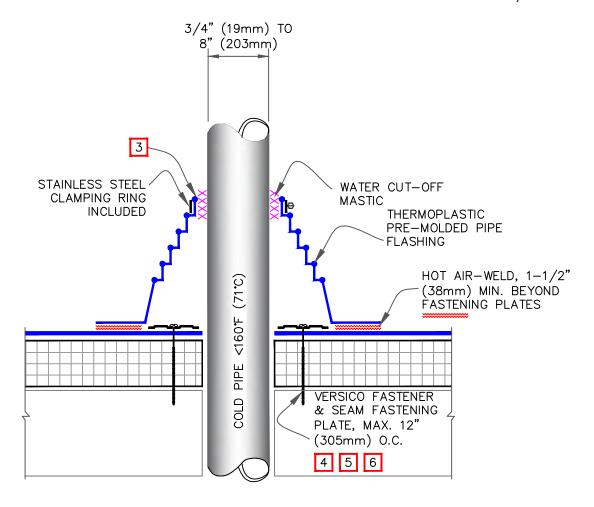


- 1. REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING FIELD FABRICATED PIPE FLASHING.
- 2. TEMPERATURE OF THE PIPE PENETRATION MUST NOT EXCEED 140°F (60°C) WHEN USING PVC AND 160°F (71°C) WHEN USING TPO FLASHING.
- 3. THERMOPLASTIC NON-REINFORCED FLASHING WRAPPED AROUND PIPE SHALL HAVE MINIMUM 1-1/2" (38mm) VERTICAL HOT AIR WELD.

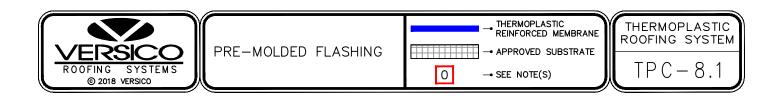
DIME	NSIONS	mm	
\bigcirc	1-1/2"	38	то
	2"	51	
B	1"	25	MIN.
0	1/2"	13	MIN.
	12"	305	APPROX.

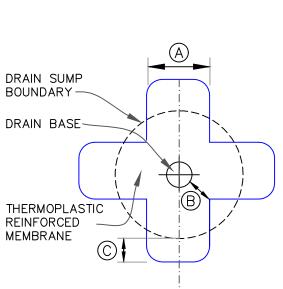
- 4. INSTALL A MINIMUM OF 4 SEAM FASTENING PLATES FOR PIPES WITH A DIAMETER UP TO 6" (152mm). ADDITIONAL SEAM FASTENING PLATES WILL BE REQUIRED FOR PIPES GREATER THAN 6" (152mm) IN DIAMETER AND SHALL BE SPACED 12" (305mm) ON CENTER MAXIMUM.
- 5. FASTENERS/PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18" (500mm).
- 6. ON MECHANICALLY ATTACHED SYSTEMS, HPVX FASTENERS AND PLATES OR HPV—XL FASTENERS AND PLATES ARE REQUIRED OVER STEEL AND WOOD DECKS. ON CONCRETE DECKS, CD—10 OR MP 14—10 FASTENERS ARE USED WITH HPVX PLATES.
- 7. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.



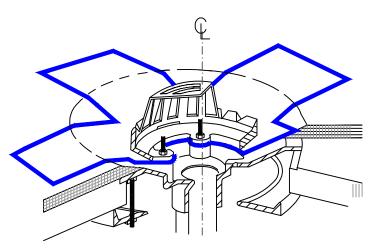


- 1. REMOVE ALL EXISTING LEAD AND FLASHING MATERIAL BEFORE INSTALLING PRE-MOLDED PIPE FLASHING.
- 2. TEMPERATURE OF THE PIPE PENETRATION MUST NOT EXCEED 140°F (60°C) WHEN USING PVC AND 160°F (71°C) WHEN USING TPO FLASHING.
- 3. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE. REGARDLESS OF PIPE DIAMETER.
- 4. INSTALL A MINIMUM OF 4 FASTENERS AND PLATES AROUND THE PIPE, EQUALLY SPACED. IF FASTENERS AND PLATES CANNOT BE INSTALLED AS SHOWN, THEY MAY ALSO BE POSITIONED OUTSIDE THE PIPE MAXIMUM 12" (305mm) O.C. AND FLASHED WITH THERMOPLASTIC REINFORCED MEMBRANE/CUT-EDGE SEALANT. REFER TO DETAIL TPC-8.2.
- 5. FASTENERS AND PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18" (457mm).
- 6. ON MECHANICALLY ATTACHED SYSTEMS, HPVX FASTENERS AND PLATES OR HPV—XL FASTENERS AND PLATES ARE REQUIRED OVER STEEL AND WOOD DECKS. ON CONCRETE DECKS, CD—10 OR MP 14—10 FASTENERS ARE USED WITH HPVX PLATES.





CUT SECTION OF THERMOPLASTIC REINFORCED MEMBRANE AS SHOWN AND POSITION INTO DRAIN SUMP. EXTEND MEMBRANE OUT OF DRAIN SUMP APPROXIMATELY 6" (152mm) (ROUND CORNERS).



EXTEND THERMOPLASTIC MEMBRANE ONTO MEMBRANE SECTION POSITIONED AT DRAIN SUMP AND CUT AS SHOWN TO LAY FLAT IN SUMP. HOT AIR WELD A MINIMUM OF 1–1/2" (38mm) COMPLETELY SURROUNDING AREA.

APPROXIMATELY 6" (152mm) (ROUND CORNERS).	DIME	NSIONS	mm	
	A	12"	305	MIN.
DRAIN SUMP FIELD MEMBRANE CUT TO LAY FLAT	B	6"	152	MIN.
BOUNDARY IN SUMP AREA	0	6"	152	APPROX.
DRAIN CLAMPING		3"	76	MIN.
RING				
MIN. 1				
AIR WI	n) WII ELD	DE HOT	_	
HOT AIR WELD, 1-1/2" (38mm)	! 			
MIN.			Z	
			\times	
		¥/1	11	
)) [
CONTINUOUS FIELD				
MEMBRANE			4/	
	Ψ'			



ROOF DRAIN (DRAIN SUMP GREATER THAN 3" TO 1 HORIZONTAL FOOT) OPTION 2, PAGE 2 OF 2



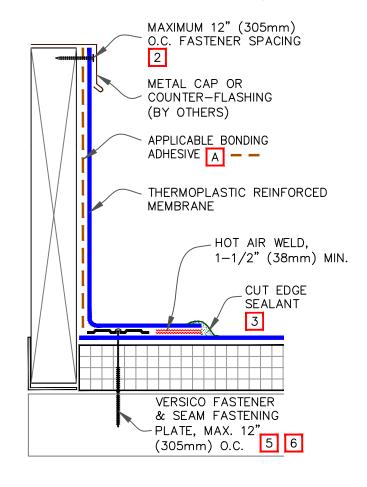
ROOFING SYSTEM

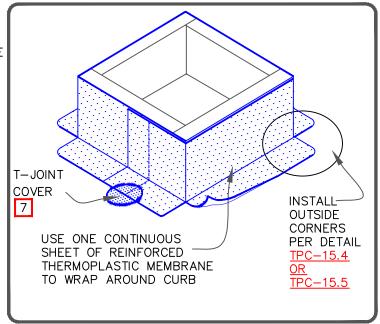
THERMOPLASTIC

TPC-6.3B

- 1. WHEN USING TPO MEMBRANE, BONDING ADHESIVE IS NOT REQUIRED WHEN THE FLASHING HEIGHT IS 12" (305mm) OR LESS AND THE MEMBRANE IS FASTENED "AS SHOWN" ON TOP OF THE CURB. WHEN VERSICO TERMINATION BAR IS USED BENEATH THE COUNTER-FLASHING, BONDING ADHESIVE CAN BE ELIMINATED WHEN THE MEMBRANE HEIGHT IS 18" (457mm) OR LESS.
- APPLICABLE BONDING ADHESIVE FOR PVC OR TPO. IN CASE OF TPO, CAV-GRIP ADHESIVE MAY ALSO BE USED ON VERTICAL PORTION.
- WHEN MECHANICAL FASTENERS ARE USED TO PENETRATE THE METAL COUNTER-FLASHING, USE EPDM WASHERS, APPLY WATER CUT-OFF MASTIC UNDER THE COUNTER-FLASHING OR CAULK THE FASTENER HEADS.
- 4. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- REFER TO VERSICO SPECIFICATIONS FOR ACCEPTABLE VERSICO FASTENER AND PLATE.
- 6. MECHANICAL SECUREMENT MAY BE INSTALLED INTO THE VERTICAL SUBSTRATE.
- 7. WHEN USING 60 OR 80 MIL (1.52mm OR 2.03mm) THICK CURB FLASHING, THE INTERSECTIONS BETWEEN SPLICES MUST BE OVERLAID WITH A THERMOPLASTIC "T-JOINT" COVER.

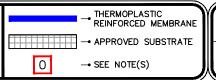
TPO MEMBRANE ONLY
USE OF CAV-GRIP ADHESIVE
MAY ALSO BE USED FOR UP
TO 20 YEAR WARRANTY





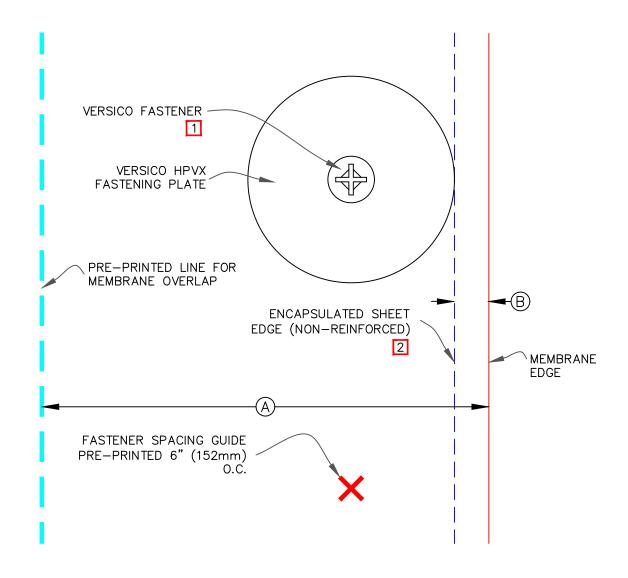


CURB FLASHING



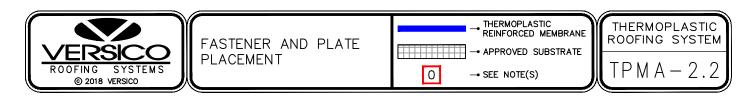
THERMOPLASTIC ROOFING SYSTEM

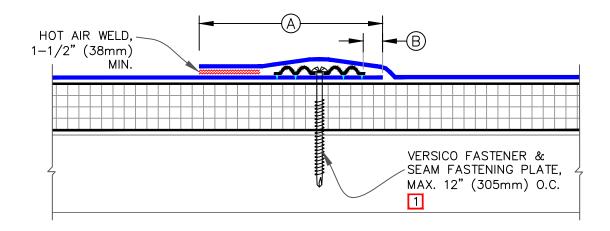
TPC-5.1



1	DIME	NSIONS	mm	
	A	5-1/2"	140	APPROX.
Į	\bigcirc B	1/2"	13	APPROX.

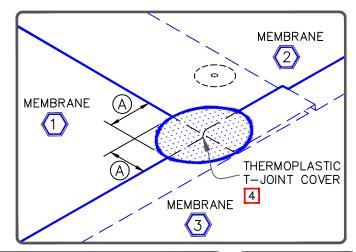
- 1. ON MECHANICALLY ATTACHED SYSTEMS, HPVX FASTENERS AND PLATES OR HPV-XL FASTENERS AND PLATES ARE REQUIRED OVER STEEL AND WOOD DECKS. ON CONCRETE DECKS, CD-10 OR MP 14-10 FASTENERS ARE USED WITH HPVX PLATES.
- 2. POSITION SEAM FASTENING PLATES BEYOND NON-REINFORCED ENCAPSULATED EDGE.





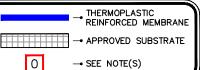
- 1. ON MECHANICALLY ATTACHED SYSTEMS, HPVX FASTENERS AND PLATES OR HPV-XL FASTENERS AND PLATES ARE REQUIRED OVER STEEL AND WOOD DECKS. ON CONCRETE DECKS, CD-10 OR MP 14-10 FASTENERS ARE USED WITH HPVX PLATES.
- 2. POSITION SEAM FASTENING PLATES BEYOND NON-REINFORCED ENCAPSULATED EDGE.
- 3. APPROXIMATELY 1/8" (3mm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF VERSIFLEX PVC MEMBRANE.
- 4. WHEN USING 60 OR 80-MIL MEMBRANE, APPLY A 4-1/2" (114mm) DIAMETER THERMOPLASTIC T-JOINT COVER AT ALL FIELD SPLICE INTERSECTIONS.

DIME	NSIONS	mm	
(A)	5-1/2"	140	APPROX.
B	1/2"	13	APPROX.



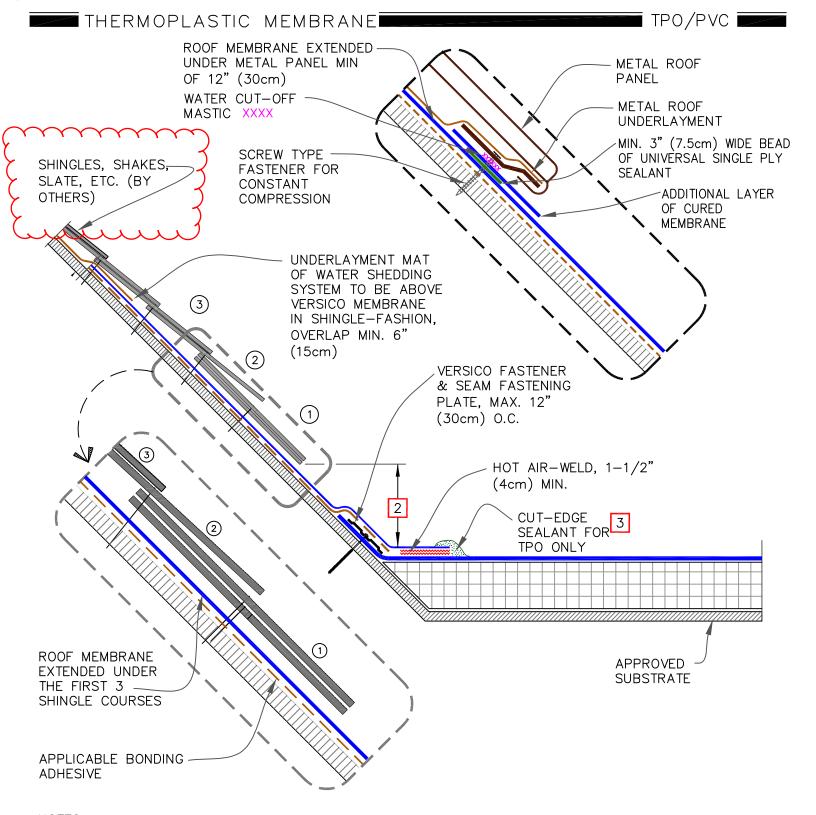


MECHANICALLY ATTACHED MEMBRANE SPLICE



THERMOPLASTIC ROOFING SYSTEM

TPMA-2.1



- 1. SEPARATION SHALL BE PROVIDED BETWEEN PVC MEMBRANE AND ASPHALTIC SHINGLES. REFER TO SPECIFICATIONS.
- 2. VERSICO'S WARRANTY IS LIMITED TO EXPOSED PORTION OF ROOF MEMBRANE.
- 3. APPROXIMATELY 1/8" (0.5cm) DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE.

