

Product and System Specifications SIGA- Flashing Systems

(Specifier Note: The purpose of this guide specification is to assist the specifier in correctly specifying high-performance weather barrier products and execution. The specifier needs to edit these guide specifications to fit the needs of each specific project. Contact a SIGA applications advisor to assist in appropriate product selections. Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. The term Architect is used throughout these guide specifications and may be revised to read "Design Professional," "Engineer", "Owner" or other appropriate designation as required for specific projects.

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

This guide is for commercial flashing applications in conjunction with weather barrier assemblies. These high-performance flashing membranes are designed to stop the entry of bulk water and airflow movement through joints and between materials. These commercial flashings are vapor permeable, and offer protection for the building envelope by providing a water-resistant barrier around penetrations and rough openings.

These commercial flashings are specifically designed for above grade, vertical wall surface openings or penetrations where the wall assembly may consist of any of the following: exterior-grade or glass-faced gypsum sheathing, exterior plywood sheathing, oriented strand board (OSB) sheathing, stud walls with no sheathing, exterior foam board insulation and masonry wall construction).

SECTION 07 65 00 FLEXIBLE FLASHING SIGA Flashing tapes

PART 1 - GENERAL

0.1 SECTION INCLUDES

- A. Self-adhered flexible flashing tapes (SIGA Fentrim® F, SIGA Wigluv®)
- B. Self-adhered flexible pre-folded tapes (SIGA Fentrim® IS 2, SIGA Fentrim® IS 20)
- C. Primer (SIGA Dockskin®)

0.2 RELATED SECTIONS

Specifier Note: Carefully and completely edit " RELATED SECTIONS" below to coordinate with other sections being included in the project manual).

- A. Section 07 25 00 – Weather barriers.
- B. Section 07 27 00 - Air Barriers: Water-resistant barrier.

0.3 REFERENCES

- A. ASTM International (ASTM):
 1. ASTM E 96 - Test Methods for Water Vapor Transmission of Materials.
 2. ASTM E331- Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
 3. ASTM E 283 - Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
 4. [ASTM](#) E 330 - Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 5. ASTM D 5034 - Test Method for Breaking Strength and Elongation of Textile Fabrics.
 6. ASTM D 1970 - Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
 7. ASTM D 3330 - Test Method for Peel Adhesion of Pressure-Sensitive Tape.
- B. American Architectural Manufacturers Association (AAMA).
 1. AAMA 711-13-Specification for Self Adhering Flashing Used for Installation of Exterior Wall Fenestration Products.

0.4 SUBMITTALS

- A. Refer to Section **[01 33 00 Submittal Procedures]** **[insert section number and title]**.
- B. Product Data: Submit manufacturers' current product data sheets, details and installation instructions for each type of product.
- C. Manufacturer Instructions: Submit manufacturer's written installation instructions.

0.5 QUALITY ASSURANCE

- A. Qualifications.
 1. Installer shall have documented successful experience with installation of flexible flashing systems under similar conditions.
 2. Installation shall be in accordance with manufacturer's installation guidelines and recommendations.
 3. Whenever if possible, installer shall undergo an onsite SIGA installation training before the installation of SIGA products begin, at no charge.
- B. Compliance with Standards: Products shall meet or exceed the requirements of ASTM E 84, ASTM E 96, ASTM E 2178, [ASTM](#) E 330, ASTM D 5034, ASTM D 1970, and ASTM D 3330.

0.6 DELIVERY, STORAGE, AND HANDLING

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

- B. Deliver flexible flashing materials and components in manufacturer's original, unopened, undamaged containers with identification labels intact. Store weather barrier materials as recommended by manufacturer.
- C. Store flexible flashing materials and accessories as recommended by manufacturer. Storage time is unlimited. Store in a cool dry place, in the product's original packaging.

0.7 WARRANTY

- A. Manufacturer Warranty: Submit manufacturer's standard 10-year warranty for flexible flashing materials and components against defects in materials.

0.8 PROJECT CONDITIONS

- A. Refer to Section **[01 60 00 Product Requirements]** [insert section number and title].
- B. Do not apply flexible flashing on damp surfaces.
- C. Apply to surfaces free of dirt, oils, lubricants and other debris.
- D. Install flexible flashing materials at temperatures above 14 °F (10°C).

PART 2 - PRODUCTS

(Specifier Note: Product Information is proprietary to SIGA . If additional products are required for competitive procurement, contact SIGA applications advisor for assistance).

0.1 MANUFACTURER

Manufacturer, Basis-of-Design: SIGA Cover Inc., 300 Spectrum Drive, Suite 400, Irvine, CA 92618; 1.855.733.7442; <http://www.sigacover.com/us/>

0.2 MATERIALS

(Specifier Note: DELETE products not required for project. Contact SIGA applications advisor for assistance).

- A. Self-Adhering – Flexible Flashing for windows and doors openings.
 - 1. Basis of Design: Self-adhering flexible flashing membrane is based on SIGA Wigluv®.
 - 2. Performance Characteristics:
 - a. Specification for self-adhered flashing used for exterior wall fenestration installation: TYPE A (no primers needed), level 3 thermal exposure.
 - b. Water Vapor Transmission : 1.72 US perms when tested in accordance with ASTM E 96, Method A.
 - c. Thickness: 14 mils/ 0.35mm.
 - d. Tensile strength: Pass, when tested in accordance with ASTM D5034 per AAMA 711-13.
 - e. Water penetration resistance around nails: Pass/Dry when tested in accordance with ASTM D1970 per AAMA 711-13.
 - f. 90 peel adhesion: Pass all conditions and standard test substrates; OSB, anodized aluminum extruded PVC plywood, accelerated aging w/UV-A, elevated temperature exposure, thermal cycling, adhesion after water immersion, when tested in accordance with D3330 and conditioning per AAMA 711-13.

AND/OR

- B. Self-Adhering – Flexible Flashing for windows and doors openings.
1. Basis of Design: Self-adhering flexible flashing membrane is based on SIGA Fentrim® F
 2. Performance Characteristics:
 - a. Specification for self-adhered flashing used for exterior wall fenestration installation: TYPE A (no primers needed), level 3 thermal exposure.
 - b. Water Vapor Transmission: 1.72 US perms when tested in accordance with ASTM E 96, Method A.
 - c. Thickness : 26 mils/ 0.7mm.
 - d. Tensile strength: Pass, when tested in accordance with ASTM D5034 per AAMA 711-13.
 - e. Water penetration resistance around nails: Pass/Dry when tested in accordance with ASTM D1970 per AAMA 711-13.
 - f. 90 peel adhesion: Pass all conditions and standard test substrates; OSB, anodized aluminum extruded PVC plywood, accelerated aging w/UV-A, elevated temperature exposure, thermal cycling, adhesion after water immersion, when tested in accordance with D3330 and conditioning per AAMA 711-13.

AND/OR

- C. Self-Adhering – Pre-folded tape for sealing windows and doors for exterior applications.
1. Basis of Design: Self-adhering Pre-folded tape is based on SIGA Fentrim® IS 2
 2. Performance Characteristics:
 - a. Specification for self-adhered flashing used for exterior wall fenestration installation: TYPE A (no primers needed), level 3 thermal exposure.
 - b. Water Vapor Transmission: 1.72 US perms when tested in accordance with ASTM E 96, Method A.
 - c. Thickness: 26 mils/ 0.7mm
 - d. Tensile strength: Pass, when tested in accordance with ASTM D5034 per AAMA 711-13.
 - e. Water penetration resistance around nails: Pass/Dry when tested in accordance with ASTM D1970 per AAMA 711-13.
 - f. 90 peel adhesion: Pass all conditions and standard test substrates; OSB, anodized aluminum extruded PVC plywood, accelerated aging w/UV-A, elevated temperature exposure, thermal cycling, adhesion after water immersion, when tested in accordance with D3330 and conditioning per AAMA 711-13.

AND/OR

- D. Self-Adhering – Pre-folded tape for sealing windows and doors for interior applications.
1. Basis of Design: Self-adhering Pre-folded tape is based on SIGA Fentrim® IS 20
 2. Performance Characteristics:
 - a. Specification for self-adhered flashing used for exterior wall fenestration installation: TYPE A (no primers needed), level 3 thermal exposure.
 - b. Water Vapor Transmission: 0.17 US perms for SIGA Fentrim® IS 20, when tested in accordance with ASTM E 96, Method A.
 - c. Thickness: 26 mils/ 0.7mm for SIGA Fentrim®.
 - d. Tensile strength: Pass, when tested in accordance with ASTM D5034 per AAMA 711-13.
 - e. Water penetration resistance around nails: Pass/Dry when tested in accordance with ASTM D1970 per AAMA 711-13.

- f. 90 peel adhesion: Pass all conditions and standard test substrates; OSB, anodized aluminum extruded PVC plywood, accelerated aging w/UV-A, elevated temperature exposure, thermal cycling, adhesion after water immersion, when tested in accordance with D3330 and conditioning per AAMA 711-13.

0.3 ACCESSORIES

- A. Joint Tape: Pressure sensitive, with acrylic based adhesive.

1. SIGA Wigluv® 2.4" (60mm) or wider (4" (100mm), 6" (150mm) , 9"(230mm)).

AND/OR

2. SIGA Fentrim® F 4" (100mm), or wider (6" (150mm) , 9"(230mm), 12"(300mm)).

- B. Sealants

(Specifier Note: Sealants are not required with the SIGA system but they could be recommended by the window manufacturer. If required by others, sealants must be chemically compatible with the weather-barrier assembly and may be specified in this section or under the Division 07 sealants section. Contact SIGA applications advisor for chemical compatibility list).

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

- C. Primer

(Specifier Note: Product listed below is only recommended for inclusion when required, and should be EDITED for specific project. When using SIGA Wigluv®, primer will be required in concrete, masonry, plaster and softboards applications. For the correct choice of product for the intended application, the substrate matrix, the application recommendations and product information in the SIGA manual must be considered. The currently valid SIGA manual is available at www.sigacover.com).

1. Provide flashing manufacturer recommended primer to assist in adhesion between substrate and flashing.
2. Products:
 - a. SIGA Dockskin®.

PART 3 - EXECUTION

(Specifier note: For the correct choice of product for the intended application, the substrate matrix, the application recommendations and product information in the SIGA manual must be considered. The currently valid SIGA manual is available at www.sigacover.com).

0.1 EXAMINATION

- A. Verify substrate and surface conditions are in accordance with flexible flashing manufacturer recommended tolerances prior to installation.
 1. Verify that surfaces and conditions are suitable prior to commencing work of this section. Do not proceed with installation until unsatisfactory conditions have been corrected.
 2. Verify substrate is visibly dry.
 3. Ensure that the following conditions are met:

- a. Surfaces are sound, dry, even, and free of excess mortar or other contaminants.
 - b. Inspect surfaces to be smooth without large voids or sharp protrusions. Inform General Contractor if substrates are not acceptable and need to be repaired by the concrete sub-trade.
 - c. Inspect masonry joints to be reasonably flush and completely filled, and ensure all excess mortar sitting on masonry ties has been removed. Inform General Contractor if masonry joints are not acceptable and need to be repaired by the mason sub-trade.
- Surfaces are sound, dry, even, and free of excess mortar or other contaminants.
4. Verify sealants are compatible with flexible sheet air barrier proposed for use.
 5. Notify Architect in writing of anticipated problems installing the air barrier material over substrate prior to proceeding.
- B. Review requirements for sequencing of installation of flexible flashing assembly with installation of windows, doors, louvers and wall penetrations to provide a weather-tight flashing assembly.

0.2 OPENING PREPARATION (all windows and all cladding types)

(Specifier Note: Window manufacturer's instructions over-ride SIGA specifications for window openings. The installer is responsible to resolve any conflicts in the specifications, sequencing, materials or techniques between window manufacturer's instructions and SIGA specifications before construction. MAINTAIN the following opening preparation and flashing articles, when used in conjunction with non-flanged windows, or flanged windows. Contact SIGA applications advisor for assistance and consult the SIGA Manual www.sigacover.com).

- A. Flush cut weather barrier at edge of sheathing around full perimeter of opening.
- B. Cut a head flap at 45-degree angle in the weather barrier at window head to expose 9 inches of sheathing. Temporarily secure weather barrier flap away from sheathing with tape.
- C. Install materials in strict accordance with manufacturer's instructions. Surfaces shall be clean and free of frost, oil, grease, mold and efflorescence prior to application of flashing.
- D. Cut 4-inch wide SIGA Fentrim® F or SIGA Wigluv® to 3 inches longer than the depth of the rough opening (RO).
- E. Fold SIGA Fentrim® F or SIGA Wigluv® along the split backing and slide into corner. Remove one side of backing strip and adhere flashing, then repeat for the other half, forming a corner.
- F. Starting at the corner where the excess material is over-hanging, use both thumbs to uniformly spread the material down onto the wall face using firm hand pressure.
- G. Cut SIGA Fentrim® or SIGA Wigluv® 6 inches or wider, to length : inside to inside of the RO.
- H. Window sill Preparation

(Specifier Note: Best construction practice requires window sill details to be waterproofed and flashed prior to the placement of the window assembly. DELETE methods that are unnecessary and inappropriate for specific project).

1. (Specifier Note: no pan flashing for all construction details incorporating fenestration drainage systems provided by the building designer, or where wall construction details are specifically provided by fenestration manufacturers' installation instructions.) Cover horizontal sill by aligning SIGA Fentrim® F or SIGA Wigluv® with inside edge of sill. Release on backing strip and adhere to rough opening across sill. Release remaining backing strip and secure flashing firmly to wall face.

OR

2. (Specifier Note: pre-fabricated sill pan flashing) Follow sill pan manufacturers' instructions, window manufacturer's instructions and ASTM E2112 recommendations

OR

3. (Specifier Note: field-fabricated sill pan flashing) Use SIGA Fentrim® F or SIGA Wigluv® to field-fabricate a sloped sill pan flashing over a beveled slope-to-drain sill plate or over sill with wood block back-dam. Cover horizontal sill by aligning SIGA Fentrim® F or SIGA Wigluv® with inside edge of sill. Release on backing strip and adhere to pan flashing across sill. Release remaining backing strip and secure flashing firmly to wall face.
 - I. Repeat steps G and H.1. for remaining portions of the RO (jamb and head).
 - J. Coordinate flashing with window installation.

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

(Specifier Note: Refer to section 3.2 Opening Preparation [above] before installing the window according to manufacturer's instructions. Contact SIGA applications advisor for assistance and consult the SIGA Manual www.sigacover.com).

- A. Install window according to manufacturer's instructions.
- B. On exterior, cut SIGA Fentrim® IS 2 the full length of the sill, plus 3 inches at each end. Justify the narrow folded edge of the SIGA Fentrim® IS 2 to the bottom edge of the window face. At each end, make a 90° turn, and continue bonding onto jamb. Press on firmly and remove entire backing tape.
- C. Press tape tightly into corner of the RO, working towards the window. Fold tape onto itself, creating a triangle. Press on. Repeat at other end. Adhere seam between window and sill, without tension.
- D. Repeat steps B and C to seal head.
- E. Cut SIGA Fentrim® IS 2 to full height of jamb. Bond narrow side of SIGA Fentrim® IS 2 to window face. Remove backing strip. Flatten prefold down and press tape along the length of the corner. Repeat on opposite jamb.
- F. Position weather barrier head flap across head flashing. Adhere using 4-inch wide SIGA Fentrim® F or SIGA Wigluv® over the 45-degree seams.
- G. On interior, cut SIGA Fentrim® IS 20 the full length of the sill, plus 3 inches at each end. Justify the folded edge of the SIGA Fentrim® IS 20 to the bottom edge of the window face. At each end, make a 90° turn, and continue bonding onto jamb. Press on firmly and remove entire backing tape.

- H. Press tape tightly into corner of the RO, working towards the window. Fold tape onto itself, creating a triangle. Press on. Repeat at other end. Adhere seam between window and sill, without tension.
- I. Repeat steps G and H to seal head.
- J. Cut SIGA Fentrim® IS 20 to full height of jamb. Bond narrow side of SIGA Fentrim® IS 20 to window face. Remove backing strip. Flatten prefold down and press tape along the length of the corner. Repeat on opposite jamb.

0.4 FLASHING (for use with flanged windows– all cladding types)

(Specifier Note: Refer to section 3.2 Opening Preparation [above] before installing the window according to manufacturer's instructions. Contact SIGA applications advisor for assistance and consult the SIGA manual www.sigacover.com).

- A. Install window according to manufacturer's instructions.
- B. Apply 4-inch wide (or wider) strips of SIGA Fentrim® F or SIGA Wigluv® at jambs overlapping entire mounting flange. Extend jamb flashing 2-inch above top of rough opening and below bottom edge of sill flashing.
- C. Apply 4-inch wide (or wider) strip of SIGA Fentrim® F or SIGA Wigluv® as head flashing overlapping the mounting flange. Head flashing should extend a minimum 1" beyond outside edges of both jamb flashings.
- D. Position weather barrier head flap across head flashing. Adhere using 4-inch wide SIGA Fentrim® F or SIGA Wigluv® over the 45-degree seams.
- E. Tape head flap in accordance with manufacturer recommendations.
- F. On interior, cut SIGA Fentrim® IS 20 the full length of the sill, plus 3 inches at each end. Justify the folded edge of the SIGA Fentrim® IS 20 to the bottom edge of the window face. At each end, make a 90° turn, and continue bonding onto jamb. Press on firmly and remove entire backing tape.
- G. Press tape tightly into corner of the RO, working towards the window. Fold tape onto itself, creating a triangle. Press on. Repeat at other end. Adhere seam between window and sill, without tension.
- H. Repeat steps F and G to seal head.
- I. Cut SIGA Fentrim® IS 20 to full height of jamb. Bond narrow side of SIGA Fentrim® IS 20 to window face. Remove backing strip. Flatten prefold down and press tape along the length of the corner. Repeat on opposite jamb.

0.5 FLASHING (for use with storefront and curtainwall)

(Specifier Note: Refer to section 3.2 Opening Preparation [above] before installing the window according to manufacturer's instructions).

- A. On interior, cut SIGA Fentrim® IS 20 the full length of the sill, plus 3 inches at each end. Justify the folded edge of the SIGA Fentrim® IS 20 to the bottom edge of the window face. At each end, make a 90° turn, and continue bonding onto jamb. Press on firmly and remove entire backing tape.

- B. Press tape tightly into corner of the RO, working towards the window. Fold tape onto itself, creating a triangle. Press on. Repeat at other end. Adhere seam between window and sill, without tension.
- C. Repeat steps A and B to seal head.
- D. Cut SIGA Fentrim® IS 20 to full height of jamb. Bond narrow side of SIGA Fentrim® IS 20 to window face. Remove backing strip. Flatten prefold down and press tape along the length of the corner. Repeat on opposite jamb.

0.6 PENETRATIONS

- A. Round or square penetrations must be seal with SIGA Fentrim® F or SIGA Wigluv®.
- B. Begin the sealing process at bottom of penetrations, shingling upper tape over bottom tape.
- C. Products that have flanges should be integrated into the water-resistive barrier using SIGA Fentrim® F or Wigluv®.

0.7 BASE JOINT

(Specifier Note : When using SIGA Wigluv®, primer will be required in concrete, masonry, plaster and softboards applications. No primer is required on concrete, masonry and plaster, when using SIGA Fentrim® F. For the correct choice of product for the intended application, the substrate matrix, the application recommendations and product information in the SIGA manual must be considered. The currently valid SIGA manual is available at www.sigacover.com).

- A. Before sealing, clean the substrate. The substrate must be dry, structurally sound and free of any dirt and grease. It must not be -adhesive-repellent.
- B. If the intend is to use SIGA Wigluv®, bond the base-joint substrate with high-performance primer Dockskin. Brush or roll on Dockskin primer to concrete, and let it dry, clear and tacky.
- C. Align Fentrim® F 4" (100mm) or wider, or Wigluv® 4 " or wider to the center of the joint, between the concrete base joint and the weather barrier Majvest. A minimum width of 2" has to adhere on the concrete.
- D. Secure in place, and remove backing strip.
- E. Bond without any tension and wrinkles and press on firmly with hand.

0.8 OTHER INSTALLATION DETAILS

- A. Contact a SIGA applications advisor for assistance with any unlisted installation details.

0.9 FIELD QUALITY CONTROL

- A. Notify weather barrier manufacturer's designated representative to obtain periodic observations of weather barrier system installation if required. Notification shall be a minimum of 30 days

prior to the start of installation. Notice of final inspection shall be made 30 days prior to completion.

- B. Inspections: Weather barrier materials, accessories, and installation are subject to inspection for compliance with performance requirements. Repair damage to weather barriers caused by destructive testing; follow manufacturer's written instructions.

0.10 PROTECTION AND CLEANING

- A. Protect weather barrier from contact with incompatible materials and sealants not approved per weather barrier manufacturer's recommendation.
- B. Protect installed weather barrier system from damage during construction prior to cladding installation.

END OF SECTION

DISCLAIMER: SIGA Cover Inc. Guide Specifications have been written as an aid to the professionally qualified Specifier and Design Professional. The use of this Guideline Specification requires the sole professional judgment and expertise of the qualified Specifier and Design Professional to adapt the information to the specific needs for the Building Owner and the Project, to coordinate with their Construction Document Process, and to meet all the applicable building codes, regulations and laws. SIGA Cover Inc. EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OF THIS PRODUCT FOR THE PROJECT.