Table of Contents

9.01.1 SBS Modified Bitumen Membranes — General

A. These are the minimum project installation requirements for the IKO SBS roofing products.

B. The IKO SBS roofing products, when installed according to the requirements of this manual, the roof system specifications, and good roofing practice, are intended to function as a roof covering on low-sloped roofs (typically defined as less than 2:12 pitch).

C. Product specifications for SBS roofing products are covered under the CSA A123.23 in Canada and the ASTM D 6162, D 6163, and D 6164 in the USA.

D. Furnish and install the IKO SBS roofing system in accordance with the instructions and details published by IKO. This part of the IKO Technical Specification Manual is intended as a procedural and application guide for installing the IKO hot asphalt applied, heat-fused, mechanically applied, cold process applied, and self-adhered membranes. Reference to other parts of this manual is necessary to ensure that the completed roof system is installed in accordance with IKO requirements.

E. The IKO SBS base sheets are pre-formed sheets of roofing material consisting of an inorganic reinforcement mat of high-strength non-woven glass, polyester or a combination of both, coated top and bottom with SBS (styrene-butadiene-styrene) polymers and premium asphalt. Top and bottom surfaces can be finished with sand, film, or tackified coating with a removable release film. The type of surfacing will determine the installation method used. The base sheets are designed to be the initial roofing membrane layer in a multi-ply roof membrane and are not intended to be left exposed.

F. The IKO SBS cap sheets are pre-formed sheets of roofing material consisting of an inorganic reinforcement mat of high-strength non-woven glass, polyester or a combination of both, coated top and bottom with SBS (styrene-butadiene-styrene) polymers and premium asphalt. The bottom surfaces can be finished with sand, film, or tackified coating with a removable release film. The top surfaces are always finished with ceramic-coated mineral granules. The type of bottom surfacing will determine the installation method used. Cap sheets are designed to be the exposed roofing membrane layer in a multi-ply roof membrane.

9.02.1 SBS Base Sheets Installation — General

A. The items listed below apply to all base sheet installations, regardless of the attachment method used, except where noted.

B. Install the base sheet using the method specified by the project designer or as required by these specifications and details. Install only as much base sheet as can be covered with the completed roof assembly within the same day.

C. All the base sheet side laps shall be a minimum of three and one-half inches (3 1/2") (90 mm).

D. All the base sheet end laps shall be a minimum of six inches (6") (150 mm).

E. The side and end laps of the base sheet shall be staggered a minimum of twelve inches (12") (300 mm) and twenty-four inches (24") (610mm), respectively, from each other and from any subsequent ply sheet or cap sheet side and end laps. “Soldiering” of the end laps within the base sheet layer is an acceptable practice that may be required for specific systems, such as Fast-N-Weld, ShieldBase, and Protectobase systems.

F. All end laps shall have a forty-five degree (45°) section removed to form a positive water stop. See Part 11, drawing MB-1 for details.

G. All the metal and concrete surfaces that come into contact with a heat-fused or hot asphalt applied base sheet must first be primed with an IKO Mod-Bit Primer or IKO Standard Asphalt Primer in accordance with Part 5 of this manual. Metal and concrete surfaces meant to receive a self-adhered base sheet shall be primed with the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC in accordance with Part 5 of this manual. This includes priming all metal fasteners and plates with the appropriate product.

H. Remove all the wrapping tape and labels before beginning the base sheet installation. The base sheets must be unrolled, allowed to relax, and then re-rolled before installation.

I. Begin the installation at the low point of the roof. Unroll and align the base sheet before attachment. Use chalk lines where necessary to ensure proper alignment. Ensure that the side laps are oriented so as not to buck the flow of water to drains. Note: If a drain is the lowest point, start here with the edge of the base sheet bisecting the centerline of the drain.

J. In two-ply applications that are started at the perimeters, it may be convenient to use a half-width of base sheet as the starter ply, thus, allowing a full-width cap sheet to start, thereby maintaining the recommended lap staggering dimension.

K. Voids, fishmouths, and any other defect that would cause buckles or stress in the finished system must be removed and patched before the installation of additional membrane layers. The repair patch must extend a minimum of six inches (6") (150 mm) beyond the deficiency in all directions.

L. The base sheet shall extend a minimum of two inches (2") (50 mm) above the top of the cant strip at all points where a cant strip bridges horizontal to vertical surfaces or two inches onto the vertical surface where no cant exists.

M. Where a cant strip is not used, and where it is not possible to extend the base sheet onto the vertical surface, it is permissible to terminate the field base sheet on the horizontal surface at the junction with the vertical surface.

N. All the field base sheet perimeters shall be restrained at their respective termination edges with screws and a termination bar in accordance with drawings MB-28 or MB-29 in Part 11 of this manual. Where perimeter insulation thickness is greater than three inches (3") (75 mm), the base sheet must terminate on the parapet wall. Termination bars are not required for Fast-N-Weld, Protectobase, ShieldBase, and Mechanically Attached base sheet installations.

9.02.2 Hot Asphalt Application of SBS Base Sheets

A. Install the base sheet in hot asphalt following the requirements for asphalt rates and temperatures referenced in Part 5 of this manual.

B. The base sheet side and end laps shall be fully adhered in hot asphalt. A nominal positive bead of asphalt shall be present at all lap seams to indicate a fully sealed joint. Alternately, the joints may be secured by heat fusing the edges.

C. The base sheet must lay flat and be fully and uniformly bonded to the substrate. The base sheets must be broomed to prevent voids and ensure embedment. This action will release or force the trapped air out from underneath, thereby reducing the chances of blistering.

D. To reduce the possibility of asphalt displacement due to “point loading,” foot and machine traffic shall be kept to a minimum on freshly applied sheets. The asphalt dispensing equipment must have balloon tires and be positioned so as to minimize asphalt displacement. In order to permit the hot asphalt time to harden, do not travel over the freshly laid membrane before the asphalt solidifies.

E. Discontinue the application of asphalt over any substrate where the asphalt foams excessively.

9.02.3 Heat-Fused Application of SBS Base Sheets

A. IKO requires that the torch operator be positioned in front of the roll and a hook or cane type tool be used to pull the roll towards the installer instead of walking on the freshly heated membrane. Fire Stop Membrane: A self-adhesive fire stop membrane composed of a glass reinforcement and SBS modified bitumen. Fire stop membrane is a safety precaution and must be installed prior to the installation of any torch-applied vapour barriers at substrate cracks and voids, angle changes at curbs, parapets, penetrations or any locations subject to back drafts or entrance of flame from the torch, protecting combustible materials in the system.

B. Beginning at the re-rolled portion of the base sheet, apply the flame evenly across the back of the roll and along the exposed side lap of the previously installed sheet.

C. Apply enough flame to melt the film on the back of the base sheet and the lap on the previously installed sheet. The base sheet installation is correct when a small bead of bitumen can be seen in front of the roll and at the side lap producing a nominal one-quarter inch (1/4") (6 mm) bleed-out of bitumen.

D. Re-roll the opposite half of the base sheet and repeat the above method to complete the installation of the full roll.

E. The procedures above typically apply to all suitable substrates. Note: When heat-fusing membranes to Protectoboard, the torch flame should be directed primarily at the back of the base sheet roll. Gently pre-heat the top of Protectoboard immediately in front of the roll before applying heat to the base sheet.

9.02.4 Fast-N-Weld Base Sheet Application

A. The IKO Fast-N-Weld system uses two different base sheets (Fast-N-Stick 180 Base and Fast-N-Stick HD Base); however, the installation procedures are common to both. The following procedures are applicable to other mechanically attached IKO SBS base sheets which do not necessarily use the Fast-N-Weld title. Please contact the IKO Technical Services department for further details.

B. Unroll the base sheet and allow the sheet to relax. Time may vary depending on the ambient temperature and sun strength.

C. Dry fit the base sheet into position starting at the lowest point of the roof. Remove the protective plastic film from the selvage edge being careful not to contaminate the exposed bitumen. Starting from the middle of the sheet, install screws and barbed plates at the appropriate fastener spacing (determined by the system performance level required). Locate the fasteners towards the outer edge of the side lap to yield the largest amount of adhered area.

D. Apply moderate tension to the base sheet while the fasteners are driven to reduce buckling and wrinkling in the base sheet. Place and align the adjoining sheet into position, remove the protective plastic release film from the bottom of the base sheet, and place over the fastened side lap of the first base sheet. Finish the joint by pressure rolling the entire length of the joint to promote a firm bond between both the base sheets.

E. For end laps, overlap the base sheets at least six inches (6") (150 mm) and drive four fasteners through both the sheets spaced equally across the entire width of the sheet. Soldiering of the Fast-N-Stick Base Sheet is an acceptable practice. See FNW-8 detail drawing. Finish by cutting a strip of the Torchflex TP 180-FF thirteen (13") (335 mm) wide, or use the TorchTape 180-FF-13, and extend over the full sheet width and heat-fuse covering all the end lap fasteners. Position the cover strip so that it falls at the mid-point of the fasteners. If the base sheet is to be left exposed to weather, the seams shall be heat sealed at the edges using a propane torch and round-nosed trowel. This is commonly known as “buttering” of the seams. This practice shall apply to both the end and side laps in cases where the cap sheet application cannot be completed the same day.

F. Due to higher wind up-lift pressures at perimeters and corners, FM requires the base sheet to have additional rows of fasteners at the same fastener spacing as used in the field, as follows:

- Perimeter: Locate the additional row down the centerline of the base sheet.
- Corners: Locate two additional rows four inches (4") (100 mm) on either side of the centerline of the base sheet.

NOTE: Contact the IKO Technical Services department for CSA patterns.

Cut the strips of the Torchflex TP-180-FF-Base or use the TorchTape 180-FF to cover the exposed perimeter and corner the fasteners before the application of the cap. Single row fasteners can be covered with a six-inch (6") (150 mm) strip and the corner rows by one strip thirteen (13") (335 mm) wide. Heat-fuse the cover strips.

G. All applications of the mechanically attached Fast-N-Weld base sheet system require pre-securement by mechanical fasteners of the board stock polyisocyanurate insulation to the decking before the securement of the base sheet. The fastener rate shall be as follows:

1. Two fasteners per four feet by four feet (4' x 4') (1.2 m x 1.2 m) sheet, regardless of thickness, located diagonally twelve inches (12") (300 mm) in from opposite corners. See Part 8, drawing F-23 for details.

2. Four fasteners per four feet by eight feet (4' x 8') (1.2 m x 2.4 m) sheet, regardless of thickness, located in a square pattern. See Part 8, drawing F-24 for details.

H. The edges of the base sheet must be terminated two inches (2") (50 mm) above the top of the cant strip or two inches (2") 50 mm) up vertical surfaces, built up curbs, penetrations, or terminations of the building roof area. Fasteners, as were used in the field of the roof, are required to be located within a minimum of two inches (2") (50 mm) from the toe of the cant or vertical intersection. Exposed fasteners will be covered by the base sheet flashing. At no point shall fasteners be located such that they cannot be covered by the base flashing material.

I. During periods of cold weather, the self-adhering side laps of the Fast-N-Stick 180 Base can be conditioned with a roofer's torch before sealing. This will warm the side lap and promote better sealing when the laps are closed. Do not melt the side lap bitumen with too much heat.

J. Screws for the Fast-N-Weld system shall be chosen in accordance with the required level of performance specified. This also applies to the barbed stress plates. Consult the IKO Technical Services department for these requirements.

9.02.5 Cold Process Application of SBS Base Sheets

A. Coat the roof surface to receive the base sheet with the IKO Cold Gold Field Adhesive as per the relevant sections in Part 5 of this manual.

B. Apply the adhesive to within two inches (2") (50 mm) of the side lap and end lap. The remaining lap area shall be heat-sealed using a hot air welder. All the seams shall be deemed acceptable when the evidence of adhesive can be seen protruding from the joint. Warning: Do not use an open flame device for this purpose.

C. The embedment of adhesive-applied sheets shall be ensured by rolling the sheet after installation with a 75 – 100 lbs. weighted roller.

9.02.6 Installation of Self-Adhered SBS Base Sheets

A. IKO Self-Adhered SBS Base Sheets are approved for use with the following substrates and materials: Asphaltic core boards; Wood, Steel or Concrete; The surface of modified bitumen membranes and base sheets; Gypsum-based thermal barriers, Polyisocyanurate (Inorganic Glass Faced).

B. Where required, the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC shall be used. Other materials approved by the IKO Technical Services department may be acceptable. Prepare the surface in accordance with the procedures in the appropriate section of Part 5 of this manual.

C. Successful installation of the self-adhered sheets is temperature-dependent. The installation temperatures shall be 5°C (40°F) and rising. For ArmourStick HD installation temperature limitations, contact the IKO Technical Services department.

D. The base sheet must be unrolled, set into starting position and then rerolled before installation. Do not remove the release film at this stage.

E. All surfaces that come into contact with the self-adhered base sheets must first be prepared with the IKO S.A.M. Adhesive or the IKO S.A.M. Adhesive LVC in accordance with IKO's recommendations and must be permitted to dry before the base sheet is applied.

F. While aligned, score and then remove the release film from the backside of the rerolled base sheet and press the base sheet into full contact with the substrate to ensure a full bond. Complete installation by following the same method for the other side of the roll and then roll the membrane with a 75-100-lb. roller.

G. Align the second base sheet with the first by unrolling and then rerolling to half of its length. Remove the release film from the selvage edge of the first sheet, exercising care not to contaminate the exposed adhesive surface. Begin the installation by removing the release film from the back of the second sheet while it is being unrolled and lapped onto the first sheet, taking care to maintain alignment. It is recommended to remove the release film and unroll the second roll of the base sheet at the same time. If the side lap bond does not fuse during unrolling and re-rolling during installation, hot air welding of the side lap is required (e.g., during installation in cooler temperatures). Alternate methods of attachment are acceptable provided that a continuous and complete bond is achieved. All the end laps shall be hot air welded.

H. Complete the roof with subsequent rolls using the procedure noted above. Roll all the sheets into place as noted above.

I. For ArmourStick HD applications, the base sheet must be covered by the cap sheet within the same day.

J. With the ArmourStick HD Base membranes, the last two inches (2") (50 mm) of all end laps must be hot air welded using a hot air welder.

K. The self-adhered base sheets with a sanded top surface require the end lap area preparation with the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC. The self-adhered base sheets with a film surface require that the lap area be prepared by removing the thermofusible film.

L. For the end laps with IKO Armourvent Base membranes, butt adjoining end sections closely and centre a 13-inch (335-mm) strip of either the IKO Torchflex TP-180-FF Base or IKO Torch Tape 180-FF over the butt joint and heat-fuse to both sides to complete the end lap.

9.03.1 SBS Cap Sheets Installation — General

A. The items listed below apply to all cap sheet installations, regardless of attachment method used, except where noted.

B. Install the cap sheet using the method specified by the project designer or as required by these specifications and details.

C. All the cap sheet side laps shall be a minimum of three and one-half inches (3 1/2") (90 mm).

D. All the cap sheet end laps shall be a minimum of six inches (6") (150 mm).

E. The side and end laps of the cap sheet shall be staggered a minimum of twelve inches (12") (300 mm) and twenty-four inches (24") (610 mm) respectively from each other and from the side and end laps of the sheet below. See Part 11, drawing MB-2 for details.

F. All end laps shall have a forty-five degree (45°) section removed to form a positive water stop. See Part 11, drawing MB-1 for details.

G. All the metal and concrete surfaces that come into contact with a heat-fused or hot asphalt applied cap sheet must first be primed with an IKO Mod-Bit Primer or IKO Standard Asphalt Primer in accordance with Part 5 of this manual. The metal and concrete surfaces meant to receive a self-adhered cap sheet shall be primed with the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC in accordance with Part 5 of this manual. This includes priming all metal fasteners and plates with the appropriate product.

H. Remove all the wrapping tape and labels before beginning cap sheet installation. The cap sheets must be unrolled, allowed to relax, and then re-rolled before installation.

I. Begin the installation at the low point of the roof. Unroll and align the cap sheet before attachment. Use chalk lines where necessary to ensure proper alignment. Ensure that the side laps are oriented so as not to buck the flow of water to drains. Note 1: If a drain is the lowest point, begin positioning the cap sheet over the center of the drain here. If the roof was started with a full base sheet width, then a half-width cap sheet will need to be the first cap sheet installed to maintain the correct lap staggering offset.
Note 2: Where the first cap sheet is installed centered over a drain, the non-selvage edge of that sheet will need to be prepared for the lapping of subsequent cap sheets such that the adjoining cap sheets come together in the middle facing the drain. A suitable three and one-half inch (3 1/2") (90 mm) side lap must be created by suppressing the granules with a heated trowel and torch along the entire sheet length.

J. The finished cap sheet installation shall be smooth, flat, and fully adhered upon completion. Defects during installation shall be addressed immediately.

K. The cap sheet shall be terminated on the horizontal surface at the intersection of any vertical surfaces. The field cap sheet shall be applied in such a way, that when complete no base or ply sheet layer is left exposed on any horizontal surface. It is not necessary to carry the field cap sheet up a vertical surface to cover any base/ply sheets, as this will be addressed by the flashing system.

L. During installation of the cap sheet, small surface imperfections, which may occur, can be aesthetically repaired by the addition of matching coloured ceramic-coated

9.03.2 Hot Asphalt Application of SBS Cap Sheets

A. Install the cap sheet in hot asphalt following the requirements for asphalt rates and temperatures referenced in Part 5 of this manual.

B. To reduce the possibility of asphalt displacement due to “point loading,” foot and machine traffic shall be kept to a minimum on freshly applied sheets. The asphalt dispensing equipment must have balloon tires and be positioned so as to minimize asphalt displacement. In order to permit hot asphalt time to harden, do not travel over the freshly laid membrane before the asphalt solidifies.

C. Discontinue the application of asphalt over any substrate where the asphalt foams excessively.

D. Unroll the cap sheet into the freshly applied asphalt. Ensure that the cap sheet makes full contact with the asphalt at all times.

E. The cap sheet side and end laps shall be fully adhered in hot asphalt. A nominal one-quarter inch (1/4") (6 mm) positive bead of asphalt shall be present at all the lap seams to indicate a fully sealed joint.

F. As an option, the cap sheet side and end laps may be heat-fused. There shall be a minimum of one-quarter inch (1/4") (6 mm) and maximum of three-eighths inch (3/8") (9.5 mm) bleed-out of asphalt at the side and end laps.

G. Excessive asphalt bleed-out at seams can be covered using loose granules. This should be done immediately before the asphalt solidifies.

9.03.3 Heat-Fused Application of SBS Cap Sheets

A. IKO requires that the torch operator be positioned in front of the roll and a hook or cane type tool be used to pull the roll towards the installer instead of walking on the freshly heated membrane.

B. Beginning at the re-rolled portion of the cap sheet, apply the flame evenly across the back of the roll and along the exposed side lap of the previously installed sheet.

C. Apply enough flame to melt the film on the back of the cap sheet and the lap on the previously installed sheet. Cap sheet installation is correct when a small bead of bitumen can be seen in front of the roll and at the side lap producing a nominal one-quarter inch (1/4") (6 mm) bleed-out of bitumen.

D. Re-roll the opposite half of the cap sheet and repeat the above method to complete the installation of the full roll.

E. On granular cap sheets, the exposed asphalt at the side or end laps may be covered with the same coloured granules while the compound is hot.

F. On granular cap sheet end laps, the end lap granules shall be embedded with a torch and trowel before mating with the next cap sheet. Heat is applied to both the membrane and the trowel so as to embed the granules into the bitumen; they should not be scraped off the cap sheet.

G. On granular cap sheet side laps, if the factory-provided three and one-half inch (3 1/2") (90 mm) side lap is not available, then the side lap granules shall be similarly embedded with a torch and trowel to create the required three and one-half inch (3 1/2") (90 mm) overlap.

9.03.4 Cold Process Application of SBS Cap Sheets

A. Coat the roof surface to receive the cap sheet with the IKO Cold Gold Field Adhesive as per the relevant sections in Part 5 of this manual.

B. Apply the adhesive to within two inches (2") (50 mm) of the side lap and end lap. The remaining lap area shall be heat-sealed using a hot air welder. All the seams shall be deemed acceptable when the evidence of the adhesive can be seen protruding from the joint. Warning: Do not use an open flame device for this purpose.

C. The embedment of the adhesive-applied sheets shall be ensured by rolling the sheet after installation with a 75 – 100 lbs. weighted roller.

D. The IKO Cold Gold Field Adhesive may be applied directly to the granule surface to affect the side and end laps. The embedment of the granules is not required.

E. Cold process application is not permitted with modified bitumen products with a film backing.

9.03.5 Installation of Self-Adhered SBS Cap Sheets

A. The successful installation of self-adhered sheets is temperature-dependent. The installation temperatures shall be 5°C (40°F) and rising. For Armourstick HD installation temperature limitations, contact the IKO Technical Services department.

B. The cap sheet must be unrolled, set into starting position, and then rerolled before installation. Do not remove the release film at this stage.

C. While aligned, remove the release films from the topside of the base sheet and backside of the cap sheet, then press the cap sheet into full contact with the base sheet to ensure a full bond. Complete the installation by rolling the membrane with a 75-100-lb. roller.

D. Align the second row of cap sheet with the selvage lap of the first cap sheet row. Once aligned, reroll the cap sheet to half of its length. Begin by removing the release films from the selvage edge of the first row of cap sheet as well as the release film from the top of the base sheet, exercising care not to contaminate the exposed adhesive surface. Begin the installation by removing the release film from the back of the cap sheet, unrolling and pressing into full contact with the base sheet to ensure a full bond. Complete the installation by rolling the membrane with a 75-100-lb. roller and heat welding the last two inches (2") (50 mm) of the side lap with a hot air welder. Depending on the site-specific conditions, alternate methods of attachment are acceptable provided that a continuous and complete bond is achieved.

E. Complete the roof with subsequent rolls using the procedure noted above. Roll all the sheets into place as noted above.

F. The self-adhered cap sheet requires that the end lap area be prepared with IKO AquaBarrier Mastic and heat welded using a hot air welder. Apply the mastic with a trowel approximately four inches (4") (100 mm) onto the granulated area of the underlying cap sheet. Lap the top cap sheet into place. The remaining two inches (2") (50 mm) of the six-inch (6") (150-mm) end lap area shall be hot air welded. Roll the lap area gently to ensure complete bond.

G. All roof penetrations shall be detailed with a continuous bead of IKO MS Detail after the completion of the cap sheet installation to mitigate water wicking into the trimmed edge of the self-adhered cap sheet.

9.04.1 SBS Membrane Flashing Installation — General

A. Flashing shall be installed where specified by the project designer.

B. Flashing of common details, where referenced, shall be completed in accordance with the detail drawings in Part 11 of this manual.

C. The following substrates require an overlayment of one-half inch (1/2") (12.7 mm) plywood suitable for exterior construction:

1. Textured or spalled masonry;
2. Stucco;
3. Exterior insulated finishing systems;
4. Cobblestone;
5. Corrugated metal panels; and
6. Uneven or unstable substrates of any kind.

Note: The plywood shall be mechanically fastened in accordance with the project requirements.

D. It is not permissible to use a propane torch to attach the heat-fused modified bitumen membranes to combustible substrates at any time. The sheets must be mechanically attached, cold-applied, hot asphalt attached, or self-adhered over combustible surfaces.

E. Prepare all the surfaces intended to receive the self-adhered sheets with the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC. Other materials approved by the IKO Technical Services department may be acceptable. Prepare the surface in accordance with the procedures in the appropriate section of Part 5 of this manual.

F. The minimum base flashing height shall be eight inches (8") (200 mm) above the finished surface of the roof.

G. The cap sheet flashing shall extend six inches (6") (150 mm) onto the field of the roof, and the base sheet flashing shall extend eight inches (8") (200 mm) onto the field of the roof.

H. The maximum flashing height of a single section of membrane base flashing shall not exceed twenty-four inches (24") (610 mm) above the surface of the roof. Above this height, the membrane shall be terminated at the uppermost edge using a termination bar. Apply additional sheets “shingle fashion” until the required height has been covered. Alternately, it is acceptable to carry the base flashing up and over the entire parapet and secure on the facia with nails in lieu of a termination bar.

I. For heat-fused base sheet flashings, all the inside and outside corners shall include a reinforcing gusset in accordance with the detail drawings MB-23 and MB-24 in Part 11 of this manual. For self-adhered base sheet flashings, the inside and outside corners may include a reinforcing heat-fused gusset in accordance with the detail drawings MB-25B and MB-26B.

J. The flashing sheets must be installed in no more than thirty-nine and three-eigths inches (39 3/8") (1 m) wide sections to be manageable and must always be parallel to the machine direction.

K. On partial roof tear off/partial roof replacement, remove all the existing flashings. New flashings shall be installed.

L. On re-cover projects, apply cap flashing directly to existing flashing primed with IKO Mod Bit Primer.

M. Unless otherwise specified, the membrane flashing must be mounted directly to the roof penetration.

N. A flashing system is required at all roof penetrations and perimeters to seal the edges of the roofing system properly. Roof penetrations and perimeters would include but are not limited to air vents, curbs, HVAC units, soil pipes, plumbing vent stacks, expansion joints, gas pipes, conduit, support beams, parapet walls, adjoining walls, gravel stops, and drip edges. Polyester reinforced flashing material is required for both the layers in all the flashing details.

O. Roof penetrations, as well as all perimeter details, should be constructed to shed water immediately away from all membrane flashings.

P. Masonry, brick, block, and all metal components that come into contact with membrane flashing must be prepared with an appropriate IKO primer or adhesive.

Q. Counterflashing is recommended at adjoining walls, as well as some parapet walls, when “through-wall” flashings have not been incorporated into the original design. If a surface-mounted counter-flashing is used, then the surface that makes contact with the substrate must provide a constant seal, and the surface above the termination must be watertight.

R. When the membrane flashing extends to the wood nailer at the top of the parapet wall, or over the top of a parapet, the top of the parapet must receive a metal or stone coping.

S. When the flashing does not extend over the top of a parapet wall, and the metal or stone coping, reglet mounted counter-flashing, or surface mounted counterflashing cannot be installed the same day as the membrane base flashing, the top edge of all base flashings must be flashed-in with a temporary night seal. All temporary flash-in materials must be completely removed before heat-fusing the flashing cap sheet.

T. Wood curbing and combustible parapets must be covered with a mechanically fastened glued or self-adhered base sheet or the IKO Protectoboard when intended to receive a heat-welded base flashing. The minimum nail head size to secure the base sheet, as well as the top of the final flashing membrane, is fifteen-sixteenths of an inch (15/16") (23.8 mm) diameter or cap nails with one-inch (1") (25 mm) diameter metal disks. The minimum fastener density to attach one-eighth inch (1/8") (3 mm) Protectoboard shall be one nail per one square foot.

U. When the flashing extends to the building facia, the flashing shall be fastened directly to the facia with nails in accordance with the project specifications.

V. The ASTM D 312 Type III or IV or CSA A123.4 Type III asphalt shall be used for all hot asphalt applied flashings.

W. Membrane flashing should be trimmed into sections and dry fit into place before installation.

X. For adhesive-applied flashings, apply the adhesive in an area slightly larger than the width of the sheet. Do not allow the IKO Cold Gold Flashing adhesive to skin. The specific time it takes the product to activate will depend upon the temperature, humidity, and wind conditions. Secure the base flashing at the top with the termination bar fastened at six inches (6") (150 mm) on the center.

9.04.2 Installation of Self-Adhesive Base Sheet Flashing

A. Both the self-adhered base and cap sheets must be pre-folded for flashings. Pre-folding the sheets will mitigate the tendency of the product to pull away from the ninety degree (90°) transitions.

B. Leave the release film on the sheet as long as possible when installing flashing. Rolling with a hand roller is required for all self-adhered flashing.

C. Extend the base flashing sheet ArmourBond Flash, ArmourBond Flash Sand, or Armourbond 180 over the parapets and fasten on the exterior face using the roofing nails spaced nine inches (9") (228 mm) on the center. Continue base flashing down the interior of the parapet and extend eight inches (8") (200 mm) past the toe of the cant or field/parapet junction. On the lower parapets, install flashing a minimum of eight inches (8") (200 mm) above the finished roof surface.

D. Ensure that the base flashing ArmourBond Flash or ArmourBond Flash Sand flashing is a width of thirty-nine inches (39") (1 m) width and staggering seams a minimum of twelve inches (12") (300 mm) from the laps in the field base. Apply the primer to the parapets full width using the IKO S.A.M. Adhesive or IKO S.A.M. Adhesive LVC before applying the base flashing and allow it to dry. Ensure that the ArmourBond Flash or ArmourBond Flash Sand runs onto the field a minimum of eight inches (8") (200 mm). Place into position and remove the release film from the underside. Affix the membrane and roll smoothly to ensure a solid bond. Note: It may be necessary to burn off the thermofusible film on the field base sheet before adhering the base sheet flashing. For specifics on this subject, please consult the IKO Technical Services department.

E. When using primer or mastic in conjunction with the self-adhered flashing membranes, ensure that the flashing seams are fully bonded by hot air welding the last two inches (2") (50 mm) of any seams.

F. Thoroughly prime exposed metal intended to receive the membrane before installing base flashing sheet membrane. Follow the manufacturer's written instructions regarding dry time.

G. Provide the reinforcement gusset at the inside corners in accordance with the manufacturer's written instructions.

End of Section