Synthetic Underlayment
Installation Instructions

SECURE START™ PLUS
MALARKEY SECURESTART™ PLUS INSTALLATION INSTRUCTIONS

GENERAL INSTRUCTIONS
Install Malarkey’s 1031 SecureStart™ Plus Synthetic Underlayment (SecureStart™ Plus) according to adopted building code and local amendments. To qualify for warranty protection and obtain stated coverage, the installation instructions detailed here must be followed. Contact Malarkey Technical Services or check our website at WWW.MALARKEYROOFING.COM for the most current version.

For current warranty information, visit WWW.MALARKEYROOFING.COM/WARRANTY-CENTER.

We assume no responsibility for damage to the underlayment or water damage to the roof deck prior to installation of the finished roofing system, or for leaks due to improper application or failure to properly prepare the surface.

IMPORTANT
• ALWAYS wear fall protection when working on a roof.
• Underlaminents can be slippery, particularly when wet or covered with frost. Be careful when walking on them.
• All material loaded on the surface of SecureStart™ Plus should be blocked to prevent slippage.

PRODUCT DESCRIPTION
Product Use: SecureStart™ Plus is a lightweight, extremely versatile, synthetic membrane suitable for use as a water-shedding underlayment or dry-in sheet in steep slope roofing applications with asphalt shingles, wood shakes/shingles, and metal shingles. SecureStart™ Plus is also the preferred underlayment for installation over vented nail base.

Contact Malarkey’s Technical Services Department for help with the use of SecureStart™ Plus at (800) 545-1191 or (503) 283-1191, weekdays 7:00 a.m. to 5:00 p.m., Pacific Time.

Composition and Materials: SecureStart™ Plus is a synthetic underlayment manufactured of 100% recyclable polypropylene and engineered with five (5) layers of secured redundancy and improved durability. It meets or exceeds the physical requirements of ASTM D226 and ASTM D4869, and is engineered to perform in temperatures from -40ºF to 240ºF (−40ºC to 116ºC).

SecureStart™ Plus has course lap guide lines (lay lines) imprinted on the material every 4” (102 mm), all the way across the width of the sheet. (See Figure 1)

Figure 1 - SecureStart™ Plus Has Course Lap Guide Lines
Every 4” (102 mm)

Precautions: SecureStart™ Plus requires dry, well-ventilated storage and protection from the weather.

Roof decks should be sound, smooth (free of protrusions), and meet adopted building code requirements. Sweep dirt and debris from the roof deck.

Minimum approved slope is 2” (51 mm) per 12” (305 mm).

Install SecureStart™ Plus with the printed-side up, and lay underlayment courses parallel to the eaves. Cut the material with straight edge blades or scissors; do not use hook blades.

SecureStart™ Plus is considered a Class I impermeable vapor retarder. To prevent harmful condensation beneath the roof sheathing, roof structures must be provided with thorough ventilation. FHA property standards require one square foot of free ventilation to each 150 ft² (1 m²⁄ 150 m²) of attic area or one square foot/300 ft² (1 m²⁄ 300 m²) if 50% is provided near the ridge.

Ventilation provisions must meet or exceed current FHA or HUD requirements and adopted building code.

SecureStart™ Plus is not intended as a permanently-exposed roofing surface but can be left uncovered for up to 180 days if necessary before the primary roof covering is installed. However, good roofing practice dictates the finished roofing material be installed over underlayment as quickly as possible to minimize the chance of blow-off and/or leaks.

APPLICATION
Drip Edge Flashing: In accordance with 2015 International Building Code, Section 1507.2.9.3, and International Residential (Building) Code, Section R905.2.8.5, install non-corrosive, 26-gauge, sheet metal drip edge flashing (drip edge) along eave and rake edges.

Install drip edge with dimensions large enough to both position the top flange of the metal 2” (61 mm) back from the edge of the roof deck, and extend outward, down over the edge.
Apply drip edge first along the eaves, and lap the initial course of SecureStart™ Plus over it. Once underlayment has been applied up to the ridge on that section of roof, follow by flashing the rakes (over the ends of the underlayment courses). Secure drip edge with roofing nails, centered on the top flange at 8” (203 mm) to 10” (254 mm) on center, or per adopted building code.

Begin application of the rake drip edge at the lower corner of roof near the eave, and work your way up, lapping subsequent lengths of flashing over the lower pieces by a minimum of 2” (51 mm). Be sure to overlap the eave drip edge, too.

UNDERLAYMENT FASTENING INSTRUCTIONS

The extent to which SecureStart™ Plus must be fastened is determined by several factors, and our instructions address these:

• Your climate region and related wind speeds
• Performance expected of the underlayment should a blow-off of the primary roof covering occur
• Degree of roof slope
• How long the underlayment will remain exposed before the primary roof covering is applied
• Safety

Malarkey recommends plastic cap fasteners with a nominal cap diameter of 1” (25 mm). Do not use staples without caps. Circular/bullseye imprints on the material act as guides to aid fastening. Designated fastener spacing on side laps is staggered, 6” O.C. (152 mm), and 12” O.C. (305 mm) in each of three rows on the field of the sheet. The field rows of fasteners correspond with marked lay lines and are 12” (305 mm) apart. (See Figure 2)

Extended Exposure: For added leak protection in coastal regions, other areas of wind-driven rain or when SecureStart™ Plus will be left exposed for an extended period of time (days or weeks) prior to application of the finished roofing materials, drive fasteners in each of the imprints.

Optional High Wind Installation: For additional protection along with Extended Exposure fastening, it is recommended laps be taped or sealed with approved sealants.

In all instances, in every application of SecureStart™ Plus, vertical end laps in the same course should be 6” (152 mm), fastened every 6” (152 mm), and staggered 6’ (1.8 m) apart in subsequent courses.

Extend SecureStart™ Plus 6” (152 mm) over hips, ridges and valleys. At roof-to-wall transitions, lap the membrane a minimum of 3” (76 mm) up the vertical wall and fasten.

INSTALLATION IN NON-ICE DAM REGIONS

Roof Slopes 4:12 and Greater

A single layer of SecureStart™ Plus is all that’s required for slopes 4:12 (4” [102 mm] per 12” [305 mm]) and greater.

Install the initial, full-width course at the lowest point of the roof deck, flush to the rake and along the eave; overhang the eave drip edge ¼”- ¾” (6-19 mm).

Continue working up the roof, subsequent courses overlapping at side laps a minimum of 4” (102 mm). Lay lines show how far to lap the material (see Figure 1). Fasten as described in the previous section. (See Figure 3)

Limited Exposure: In temperate weather conditions with expectation SecureStart™ Plus will only have limited exposure prior to same or next day application of the primary roof covering, install enough fasteners to hold the underlayment firmly in place in order to work safely (or per adopted building code) until shingles can be applied.

Malarkey recommends this be accomplished by fastening at every other imprint on the sheet, meaning side laps with fasteners 12” O.C. (305 mm) and the field fastened in staggered rows, 24” O.C. (610 mm).

Once the top of that expanse of roof is reached, apply drip edge flashing to the rakes, over the ends of SecureStart™ Plus.

Roof Slopes 2:12 Up to 4:12

SecureStart™ Plus is installed in a double layer for slopes 2:12 (2” [51 mm] per 12” [305 mm]) up to 4:12 (4” [102 mm] per 12” [305 mm]).

Begin by fastening a half-width starter strip of SecureStart™ Plus directly to the roof deck along the eaves. Overhang the drip edge ¼”- ¾” (6-19 mm).

Courses to follow are all full-width, the first course completely overlapping the starter, and followed by courses half-lapped
Once the top of that expanse of roof is reached, apply drip edge flashing to the rakes, over the ends of SecureStart™ Plus.

**INSTALLATION IN ICE DAM REGIONS**

*Roof Slopes 4:12 and Greater*

In geographic regions that regularly experience ice dams along the eaves (or if required by building code), install a full-width sheet of Malarkey Arctic Seal® self-adhering underlayment (or equivalent underlayment conforming to ASTM D1970) along the eave. It will not have an overhang but be flush with the drip edge.

Note: Under metal roofing, install a high-temp, ASTM D1970 underlayment. DO NOT USE SecureStart™ Plus as the principal protection where ice damming is possible.

Continue installing Arctic Seal® up the roof as necessary to a point not less than 24" (610 mm) past the interior warm inside wall of the house or above the expected level of ice dams or according to building code requirements.

Side laps in overlying courses of Arctic Seal® can be lapped to either the 2" (51 mm) or 4" (102 mm) lay lines. Firmly hand-roll these overlaps to ensure a complete, watertight bond.

Once past 24" (610 mm), follow with full-width courses of SecureStart™ Plus, the first lapped 6" (152 mm) over the Arctic Seal®, and the rest with a minimum of 4" (102 mm) side laps, on up the roof.

Lay lines show how far to lap the material (see Figure 1). Fasten as described above.

Once the top of that expanse of roof is reached, apply drip edge flashing to the rakes, over the ends of SecureStart™ Plus and Arctic Seal®.

For extra protection at the eaves and prior to the installation of drip edge, install an 8" (203 mm) stripping ply of Arctic Seal®, and ensure it covers the junction of roof and fascia. (See Figure 5)

**Roof Slopes 2:12 Up to 4:12**

For lower slopes a double layer application of Arctic Seal® (or equivalent ASTM D1970 underlayment) is recommended.

Begin with a half-width starter strip of Arctic Seal®, and apply along the eaves and rakes.

Succeeding courses are all full-width, the first course completely overlapping the starter, and followed by courses half-lapped over preceding courses.

Continue applying Arctic Seal® up and out onto the roof a minimum of 24" (610 mm) beyond the inside, warm interior wall of the house or above the expected level of ice dams or according to building code requirements.

Once past 24" (610 mm), continue with double layers of Arctic Seal® or switch to SecureStart™ Plus. Fasten as described above. (See Figure 6)
Once the top of that expanse of roof is reached, apply drip edge flashing to the rakes, over the ends of SecureStart™ Plus and Arctic Seal®.

FINAL NOTE
These instructions are meant to act as a general guide. If you have questions about this installation or any Malarkey roofing product, please contact our Technical Services Department weekdays at (800) 545-1191 or (503) 283-1191, 7:00 am to 5:00 pm, Pacific Time. You can also email us at technicalinquiries@malarkeyroofing.com. Thank you.