POLYGLASS®

MAPEI® GROUP

POLYSCHOOL

SEMINARS FOR PROFESSIONAL GROWTH

BY POLYGLASS

Welcome!

National Gypsum®

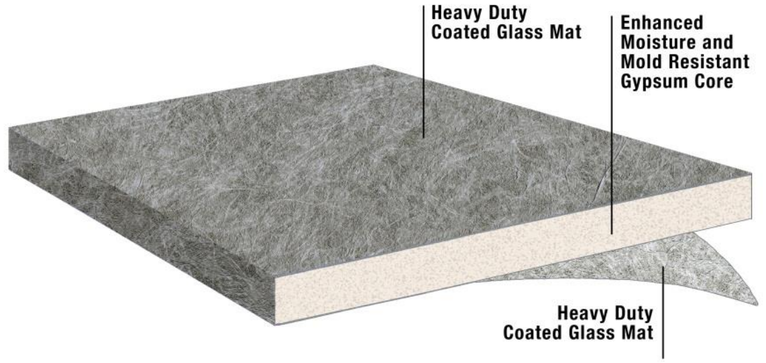
DEXcell®

Roof Board

DEXcell Product Features

DEXcell FA Glass Mat Roof Board

- **For Adhered Roofing Systems-**
  - Upgraded Coated Mat Facers front and back for wind uplift and easier handling
  - Coated back mat provides superior bond when “foaming” cover board in place
  - Treated gypsum core
  - Industry standard sizes and thicknesses

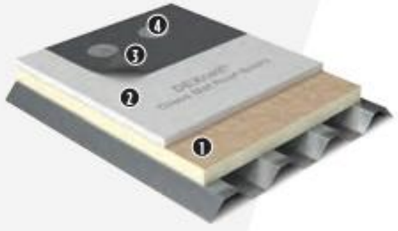


DEXcell®
FA Glass Mat Roof Board

Typical Roof System Applications

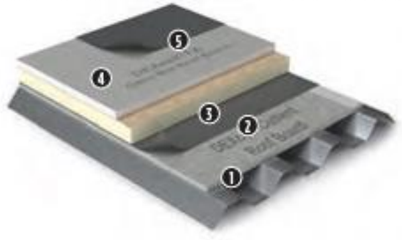
The following are examples of typical roof system applications using DEXcell® Roof Boards and should be considered to be for illustration purposes only. Consult with the roof system manufacturer or roof design professional for recommendations on use and installation. The manufacturers of DEXcell Roof Board products do NOT provide roof design services and make no warranties or representation with respect to any particular roof system or any components or materials, other than DEXcell Roof Boards. It is the responsibility of the roof system manufacturer or roof design professional to determine the suitability of DEXcell Roof Boards, or the use of any other materials with DEXcell Roof Boards, for any particular application.

COVERBOARD



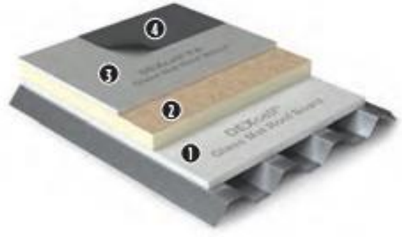
1. Insulation
2. DEXcell® Glass Mat Roof Board
3. Membrane
4. Fastener

THERMAL BARRIER / VAPOR BARRIER



1. DEXcell® Cement Roof Board
2. Vapor Barrier
3. Insulation
4. DEXcell FA™ Glass Mat Roof Board
5. Membrane

THERMAL BARRIER / COVERBOARD

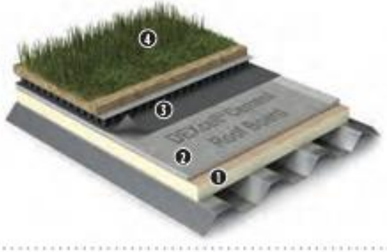


1. DEXcell® Glass Mat Roof Board
2. Insulation
3. DEXcell FA™ Glass Mat Roof Board
4. Membrane

WOOD DECK

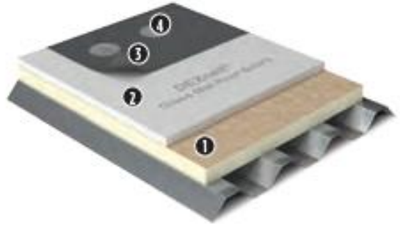
1. Wood Decking
2. DEXcell® Glass Mat Roof Board
3. Membrane
4. Shingles

VEGETATIVE



1. Insulation
2. DEXcell® Cement Roof Board
3. Membrane
4. Vegetative Roof System

VERY SEVERE HAIL



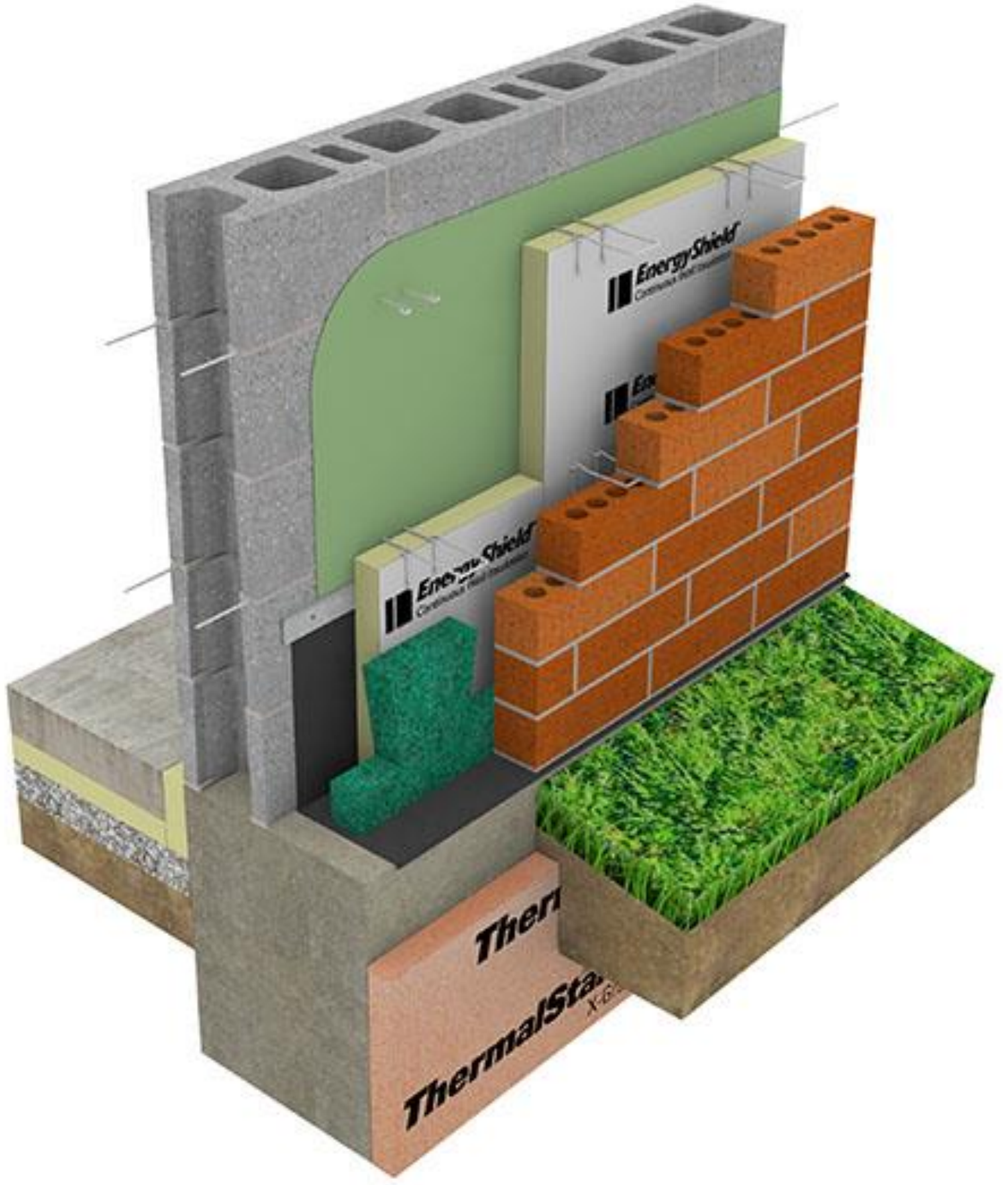
1. Insulation
2. 1/2" DEXcell FA™ with modbit or DEXcell FA VSH™ single-ply
3. Membrane
4. Fastener

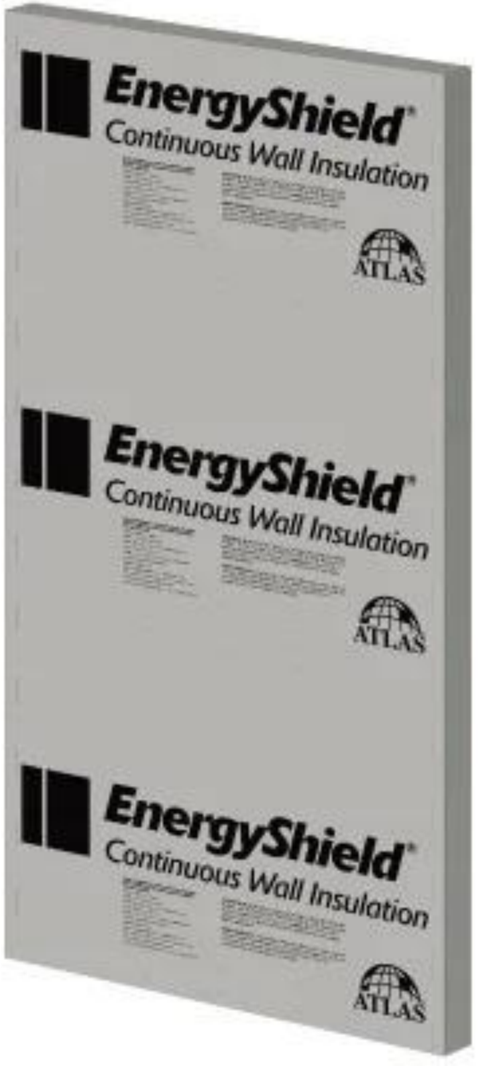
Choose the Best DEXcell® Roof Board Product for Your Project

Application	DEXcell® Glass Mat Roof Board	DEXcell FA™ Glass Mat Roof Board	DEXcell FA VSH™ Glass Mat Roof Board	DEXcell® Cement Roof Board
Single-Ply – Fully Adhered	—	✓	✓	✓
Single-Ply – Mechanically Attached	✓	✓	✓	✓
Single-Ply – Self Adhered	—	✓	✓	✓
Modified Bitumen – Hot Mop	—	✓	✓	✓
Modified Bitumen – Cold Adhesive	—	✓	✓	✓
Modified Bitumen – Torch	—	✓	✓	✓
Modified Bitumen – Self Adhered	—	✓	✓	✓
Built-Up Roof (BUR) – Hot Mop	—	—	—	✓
Built-Up Roof (BUR) – Cold	—	✓	✓	✓
Spray Polyurethane Foam	—	✓	✓	✓
Fluid Applied	—	✓	✓	✓
Thermal Barrier	✓	✓	✓	✓
Fire Barrier	✓	✓	✓	✓
Substrate for Vapor Barrier	✓	✓	✓	✓
Substrate for Parapet Wall	—	✓	✓	✓
Very Severe Hail - Modified Bitumen	—	✓	✓	—
Very Severe Hail - Single-Ply	—	—	✓	—
Vegetative "Green" Roof System	—	✓	✓	✓
Photovoltaic Roof System	—	✓	✓	✓
Standing-Seam Metal Roof System	✓	✓	✓	✓
Wood Shake Underlayment	✓	✓	✓	✓

✓ Recommended ✓ Acceptable — Not Recommended*


ATLAS
COMMERCIAL
ROOFING PRODUCTS
POLYISO ROOF INSULATION,
SPECIALTY PRODUCTS & ACCESSORIES





EnergyShield®
Continuous Wall Insulation

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Training Objectives

New Code &
Steep-Slope Underlayments

New Polyglass approvals

Modified bitumen underlayments advantages and Polyglass product innovations

Installation tips and details

Warranty Offerings and Contractor Programs

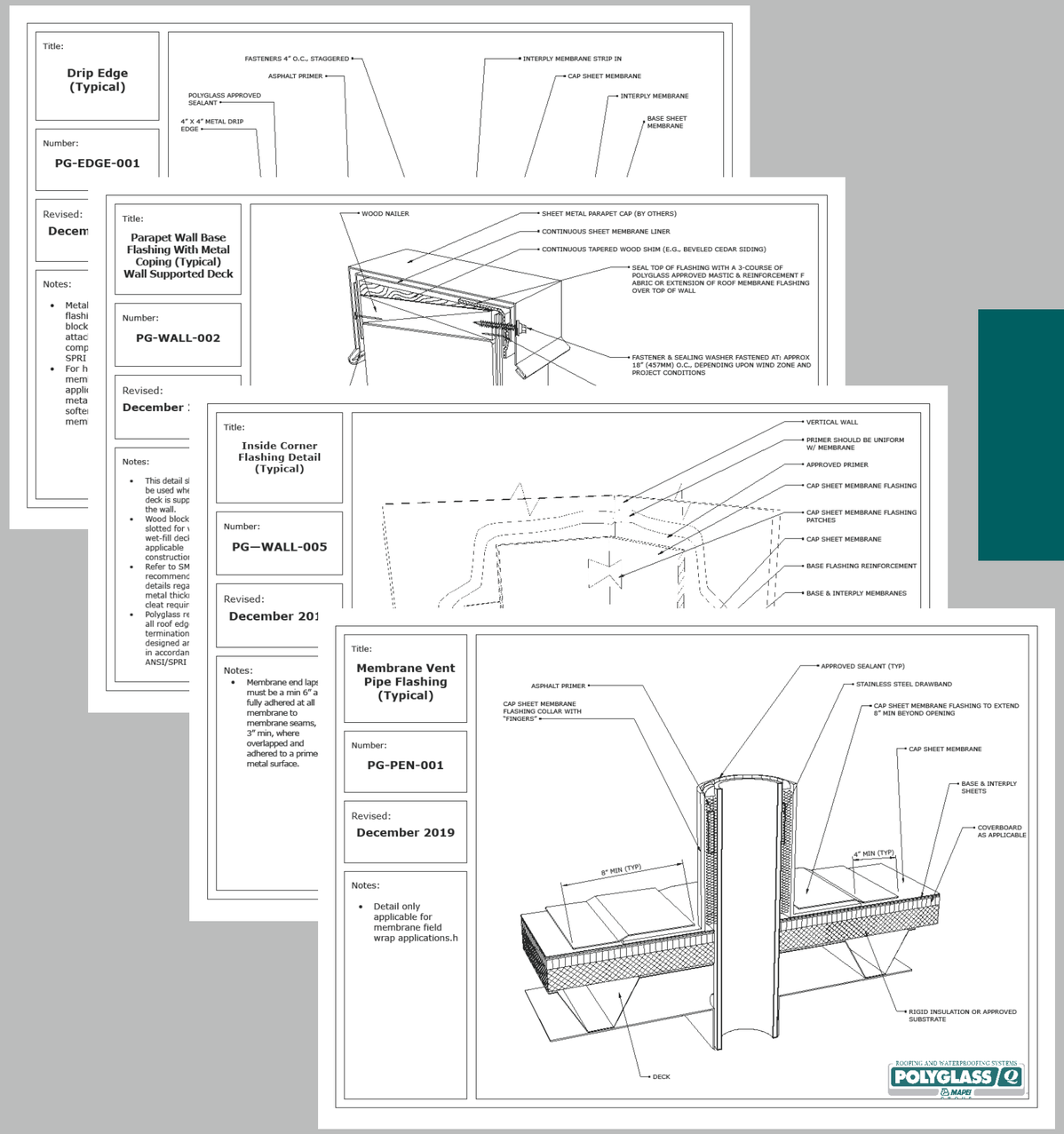
Polyglass Tools & Resources

www.Polyglass.us

Polyflix on YouTube

Polyschool

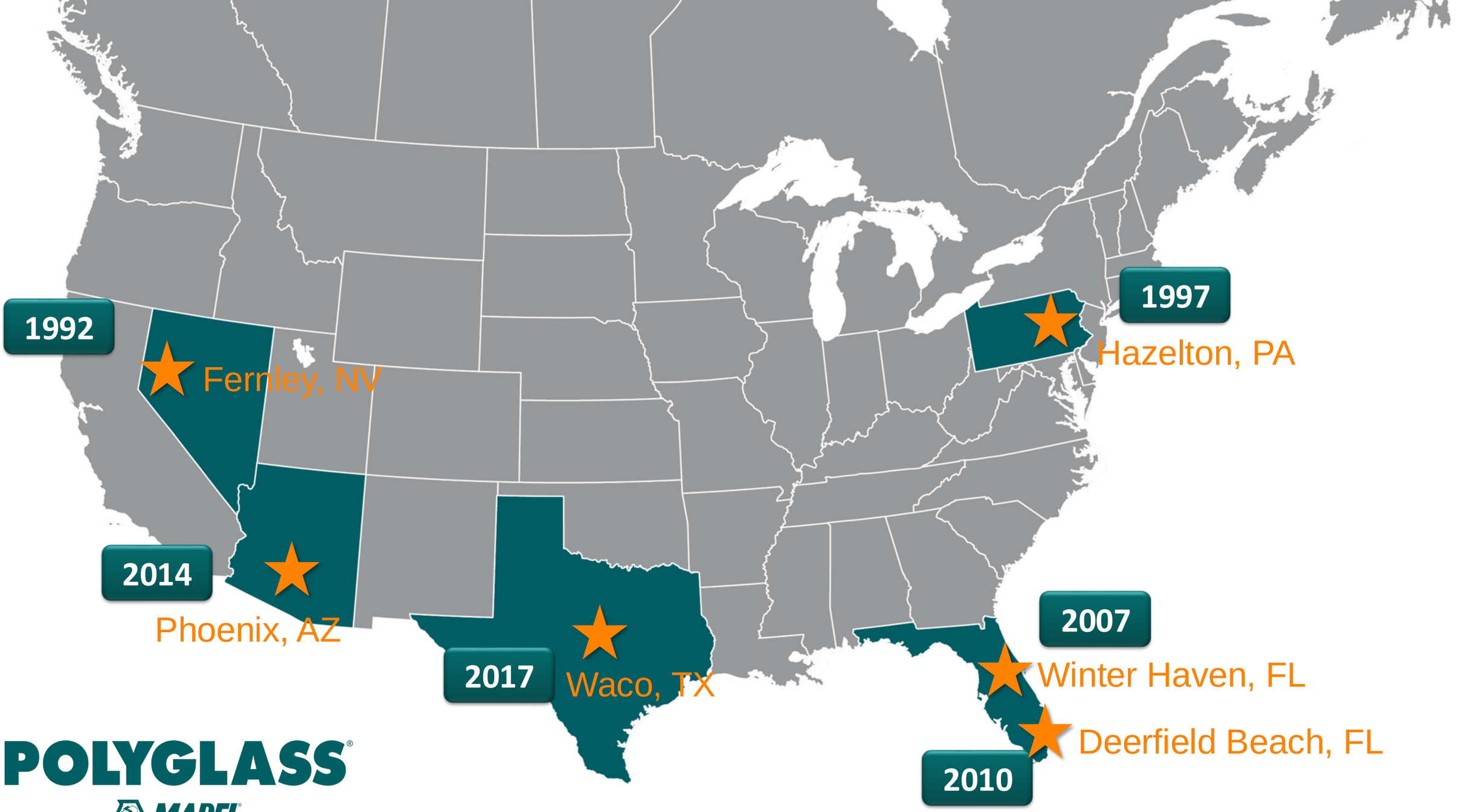
SUPERIOR TECHNOLOGY MADE FOR YOU



Detailed Drawings

For detailed drawings please visit our website **www.Polyglass.us**

1. Click "Resources"
2. Select "Detail Drawings"



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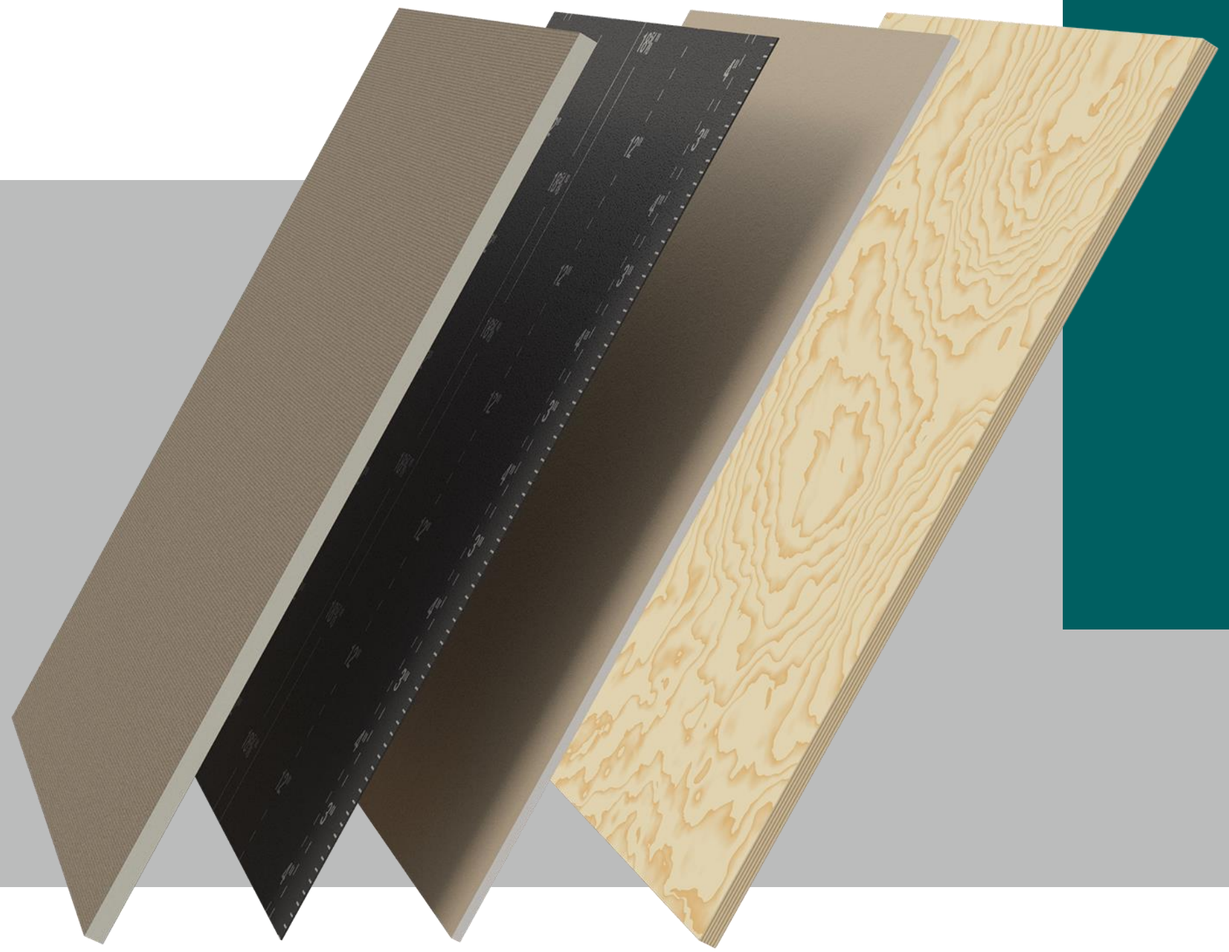
Self-Adhered (SA) Modified Bitumen Technology

Simple Tools

Self-Adhered membranes are quicker to install than conventional systems and use just a few hand tools

Acceptable Substrates



Polyisocyanurate insulation

DensDeck® Prime Roof Board
or DuraGuard® Roof Board

Securock® Gypsum-Fiber
Reinforced Roof Board

Primed Concrete

Plywood (prime as needed)

A multiple variable compound manufacturing process that allows application of APP or SBS compound on the weathering surface and a Self-Adhesive compound on the bottom surface of the reinforcement

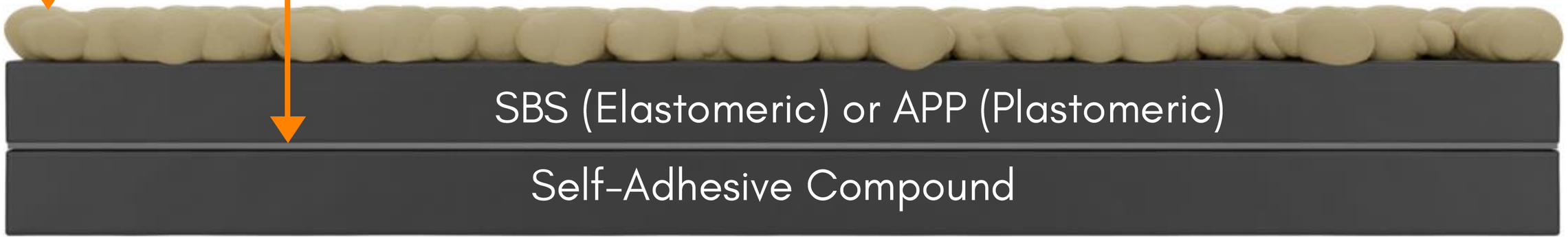
ADESO
SELF-ADHERED TECHNOLOGY

Configurations

Reinforcement

Dual-Compound Technology

- Fiberglass
- Polyester
- Top compound: weathering service
- Bottom compound: adhesive layer
- Patented technology



How does it Adhere?

Not a "Peel-and-Stick"

75 lb. split-face roller on each ply

- Self-adhered membranes have been formulated to provide superior “tack”.
- Pressure from the weighted roller and 3 thermal cycles initiates the aggressive adhesive compound to ensure adhesion in the field.

Three (3) day/night thermal cycles

Quick Dry-in

Speed of application of Self-Adhered Base sheets allow for quick dry-in of building

10 squares in 35 minutes!

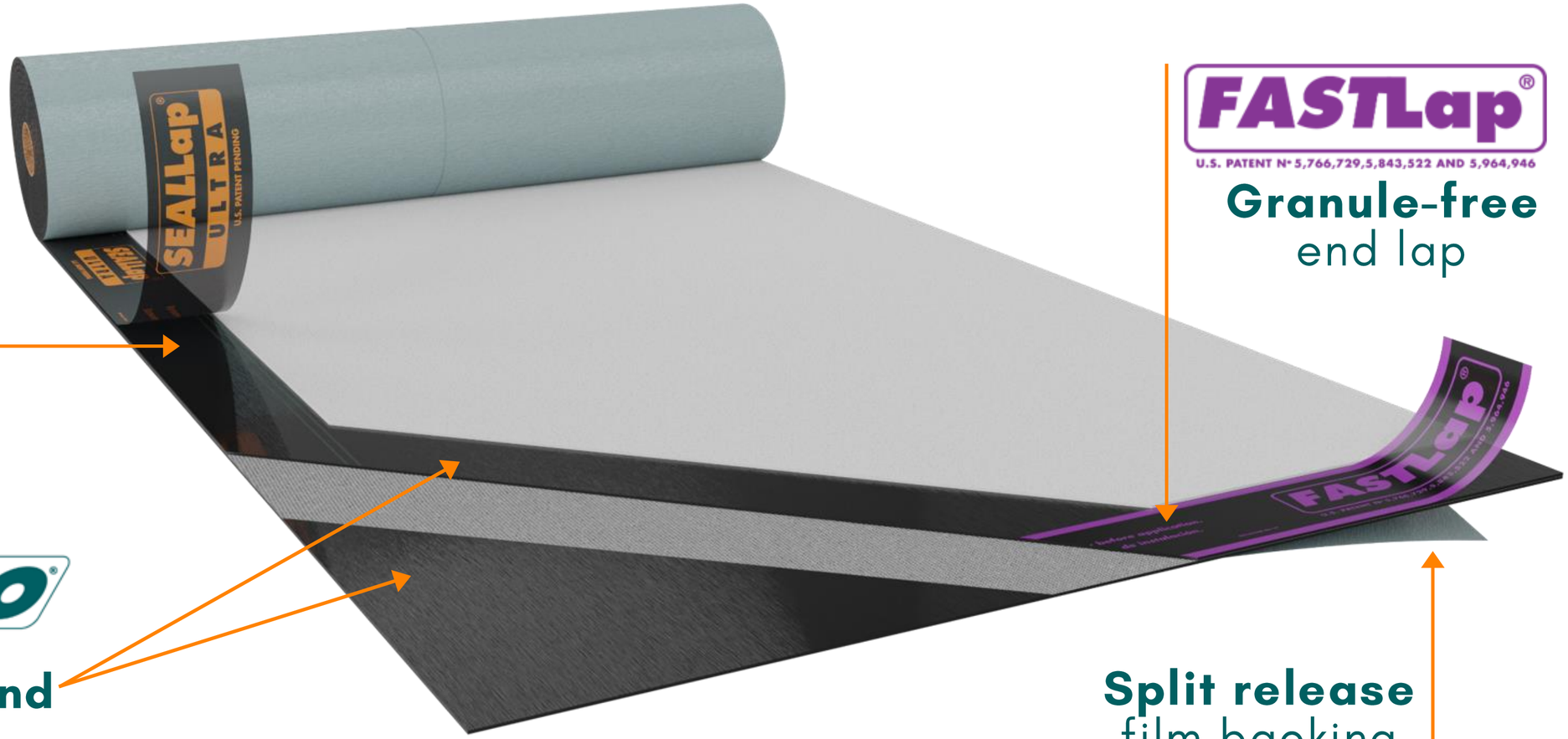
Self-Adhered Factory-Applied Innovations

SEALLap® ULTRA
U.S. PATENT PENDING

Self-Adhesive
Compound

ADESO®
SELF-ADHERED TECHNOLOGY

Dual-Compound
Technology



FASTLap®
U.S. PATENT N° 5,766,729,5,843,522 AND 5,964,946

Granule-free
end lap

Split release
film backing

Granule-free side lap with self-adhesive compound

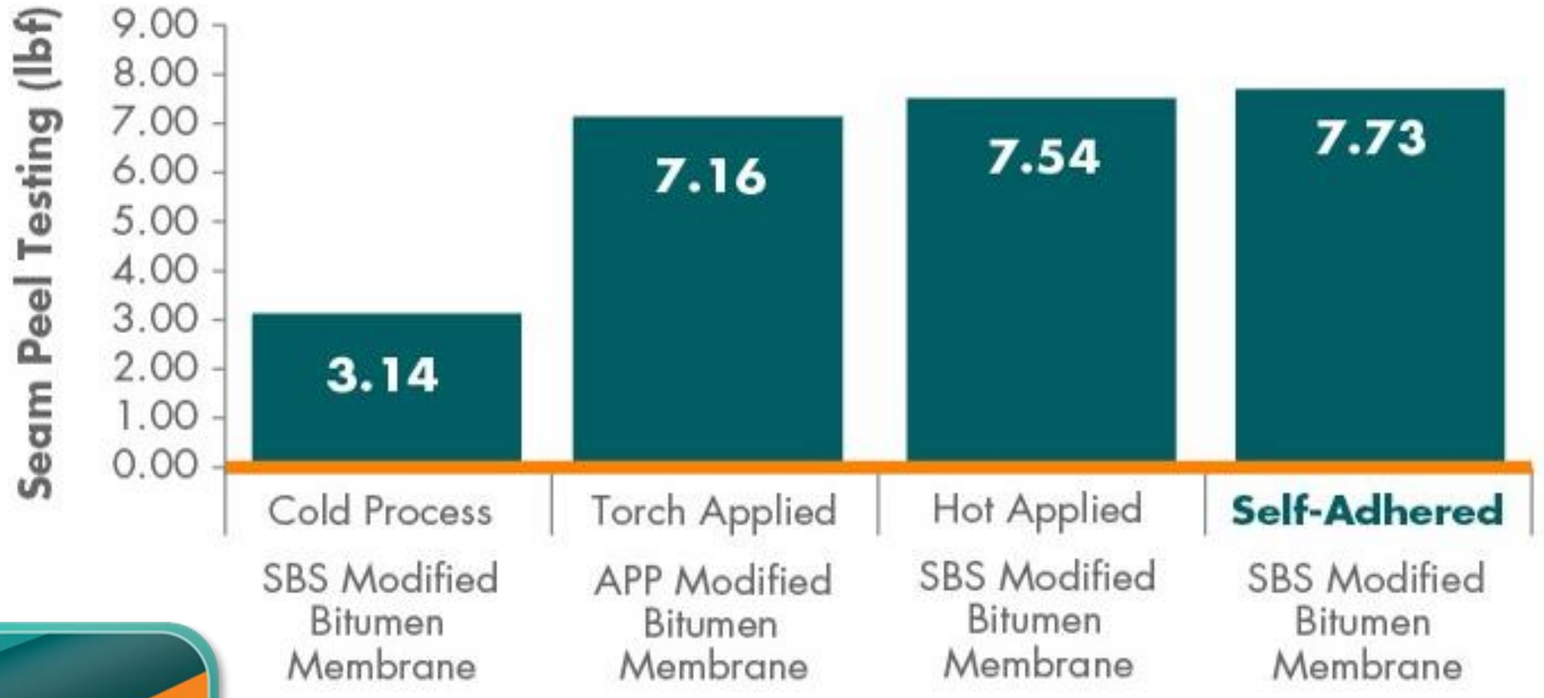
SEALLap® ULTRA

U.S. PATENT PENDING

Instant bond, tested stronger than ALL other application methods

SEAM PEEL TESTING – FM TEST METHOD

SEALLap® ULTRA
U.S. PATENT PENDING



When compared to similar mod-bit membranes and "traditional" application methods:

- 146% stronger than Cold Applied Process
- 8% stronger than Heat Welded(Torch) APP
- 2.5% stronger than Hot Mopped SBS

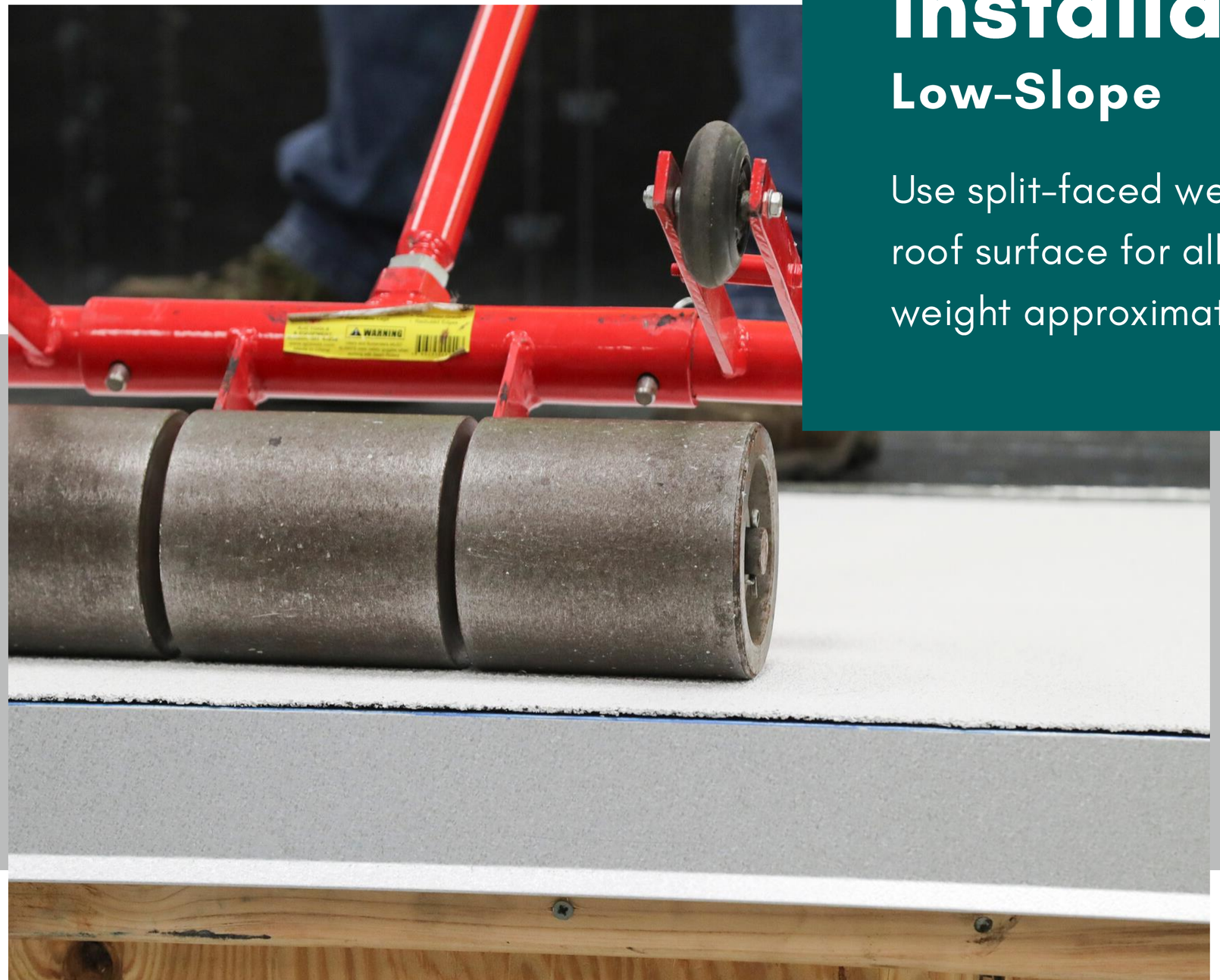
Installation Tips

Low-Slope

Installation Tips

Low-Slope

Hot-Air Gun or approved Mastic (PG500 or PP50).



Installation Tips

Low-Slope

Use split-faced weighted roller on the roof surface for all SA membranes, weight approximately 75 lbs.

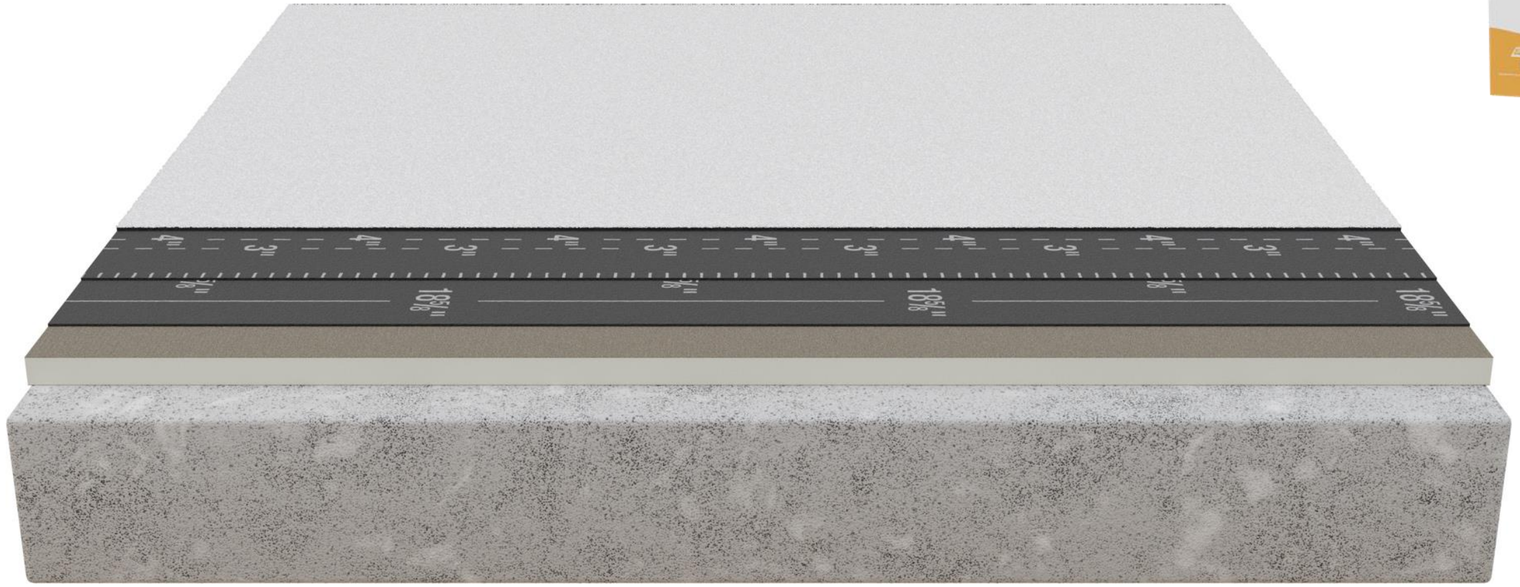
One Part Flashing

Flashing Challenges

Flashing Solutions

Typical SA System

Self-Adhered



ADESO®
SELF-ADHERED TECHNOLOGY

Components	Application	Basic System	Enhanced System	High Performance System (2-ply base)
Base Ply	Self-Adhered	Elastoflex SA V	Elastoflex SA V PLUS	Elastoflex SA V PLUS
	Self-Adhered Fire Rated	Elastoflex SA V FR	Elastoflex SA V PLUS FR	Elastoflex SA V PLUS FR
Cap Ply	Self-Adhered	Polyflex SA P	Polyfresko G SA	Polyfresko G SA
	Self-Adhered Fire Rated	Polyflex SA P FR	Polyfresko G SA FR	Polyfresko G SA FR

Typical SBS System

Hot Mop and Torch Applied

Components	Application	Basic System	Enhanced System	High Performance System (2-ply base)
Base Ply	Hot Mop	Elastoflex V or Elastobase V	Elastoflex S6	Elastoshield TS
Cap Ply	Torch	Elastoflex V G	Elastoflex S6 G	Polyfresko G SBS
	Torch Fire Rated	Elastoflex V G FR	Elastoflex S6 G FR	Polyfresko G SBS FR

Hot Mop Applied

Components	Application	Basic System	Enhanced System	High Performance System (2-ply base)
Base Ply	Hot Mop	Elastoflex V or Elastobase V	Elastoflex V or Elastobase V	Elastoflex S6
Cap Ply	Hot Mop	Elastoflex V G	Elastoflex S6 G	Elastoshield S6 G HT
	Hot Mop Fire Rated	Elastoflex V G FR	Elastoflex S6 G FR	Elastoshield S6 G HT

Hot Mop Applied with Flood Coat and Gravel

Components	Application	Basic System	Enhanced System	High Performance System (2-ply base)
Base Ply	Hot Mop	Elastoflex V or Elastobase V	Elastoflex V or Elastobase V	Elastoflex S6
Cap Ply	Hot Mop	Elastoflex V or Elastobase V	Elastoflex S6	Elastoflex S6

Typical Hybrid System

Stick 1-Torch 1

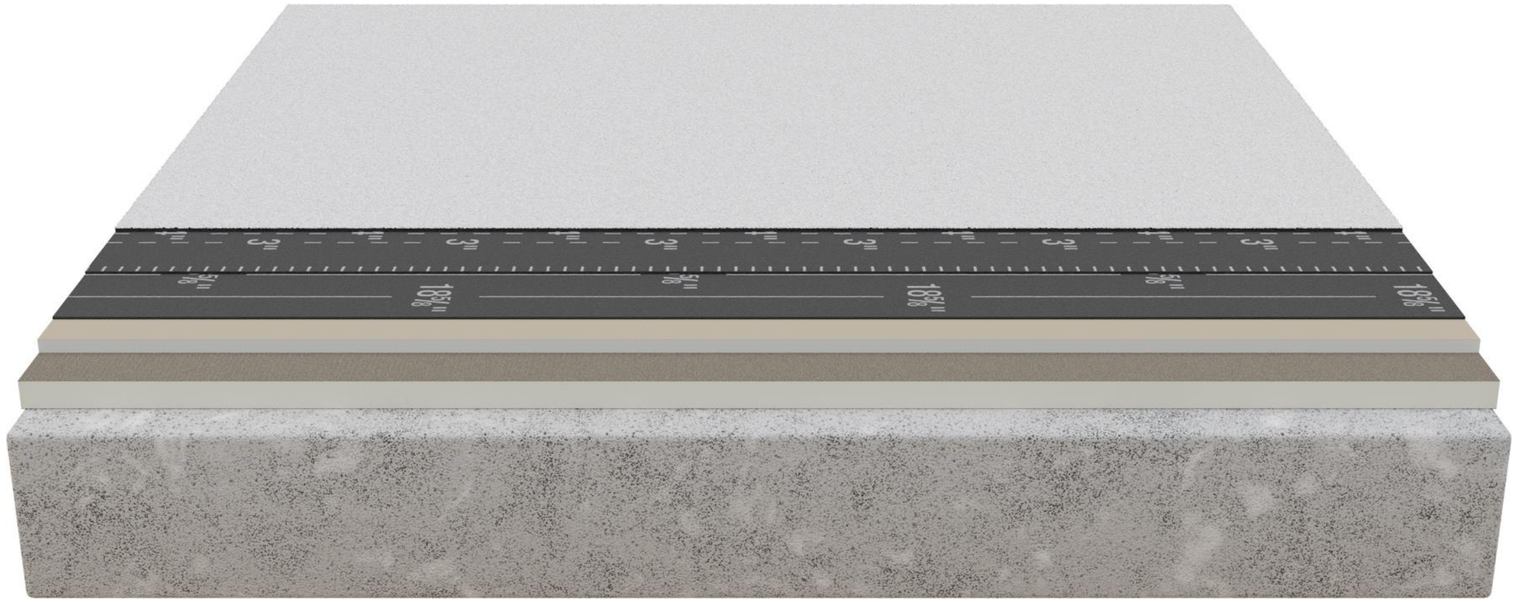
ADESO®
SELF-ADHERED TECHNOLOGY

Components	Application	Basic System *	Enhanced System	High Performance System (2-ply base)
Base Ply	Self-Adhered	Elastoflex SA V	Elastoflex SA V PLUS	Elastoflex SA V PLUS
Cap Ply	Torch	Polyflex G	Polyfresko G	Polyfresko G
	Torch Fire Rated	Polyflex G FR	Polyfresko G FR	Polyfresko G HP FR

* Suitable for non-combustible decks only.

Typical APP System

Heat Welded/Torch Applied



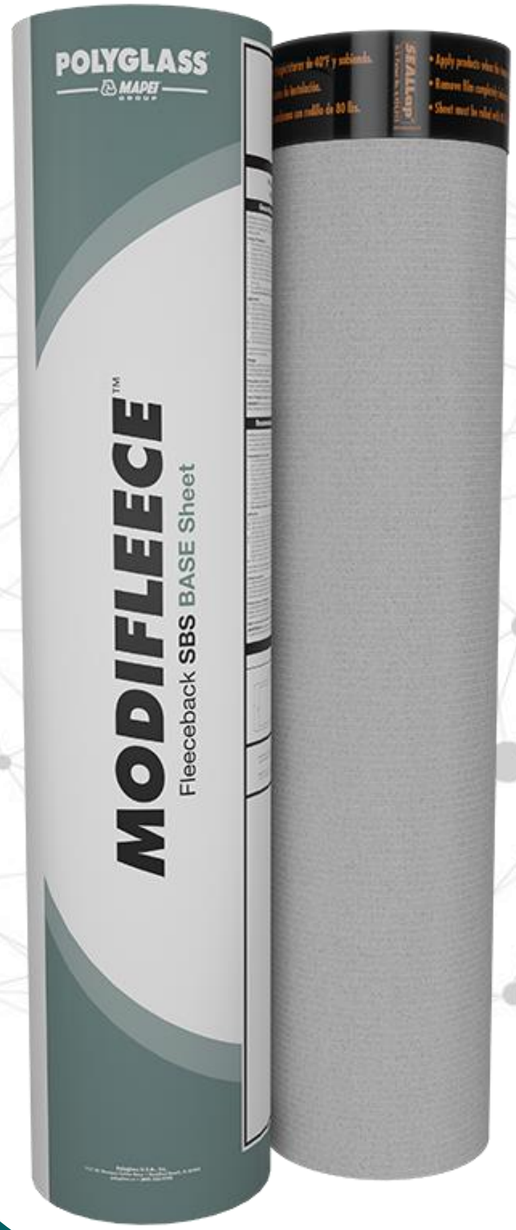
Components	Application	Basic System	Enhanced System	High Performance System (2-ply base)
Base Ply	Torch	Polyglass Base or Polybond	Polyflex	Polyflex
Cap Ply	Torch	Polybond G	Polyflex G	Polyfresko G HP
	Torch Fire Rated	Polybond G FR	Polyflex G FR	Polyfresko G HP FR

INTRODUCING

MODIFLEECE™

Industry's 1st

Fleeceback SBS Base Sheet



Modifleece™

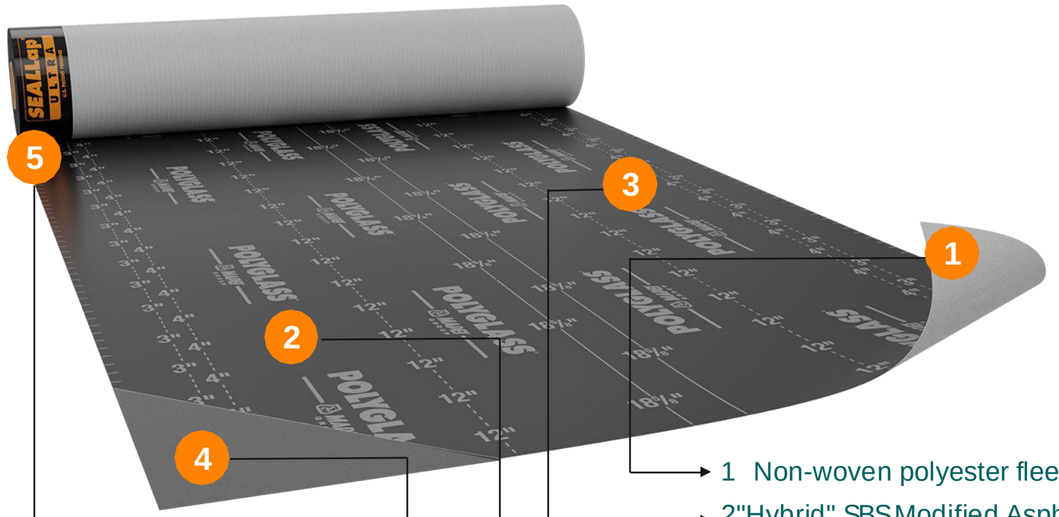
Fleeceback SBS Base Sheet

Product Overview

- Fleece-Backed SBS Modified Base Sheet for Low-Slope roofing application
- Polyester fleece bottom surface allows application to irregular or semi-rough surfaces such as Lightweight Concrete (LWC)
- Modifleece™ is applied using Polyglass LRF CR low rise foam adhesive in a spatter pattern
- SealLap® technology provides immediate watertight seams
- Unique dual compound ensures strong adhesion of modified bitumen to fleece backing
- Top film surface offers application of a variety of Polyglass self-adhered or torched

PRODUCT DATA

Net Coverage (Approx)....150 ft2 (13.9 m2)
Weight (Approx)..... 59 lbs (27 kg)
Thickness (Nominal)..... 87 mils (2.2 mm)
Roll Size.....49'3" × 39 3⁄8" (15 m × 1 m)
Rolls/Pallet.....25



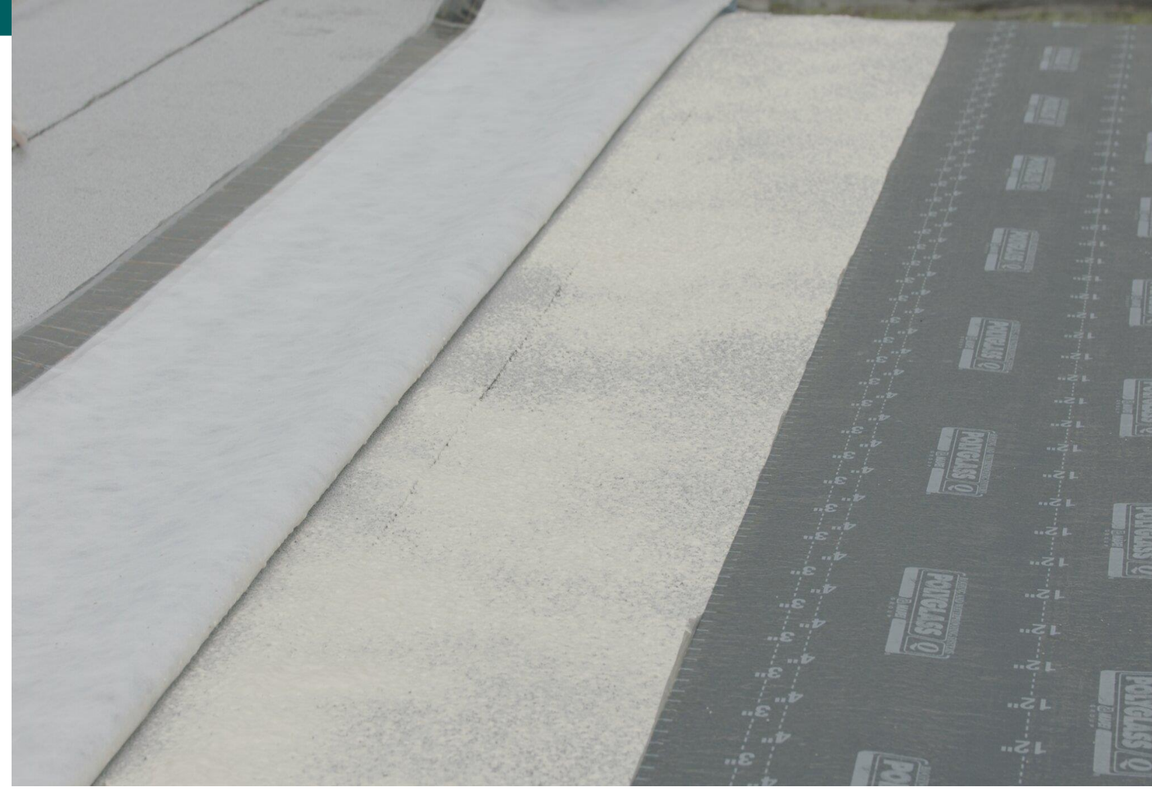
1 Non-woven polyester fleece backing
2"Hybrid" SBS Modified Asphalt Top Compound
3- Top film surface with laylines
4- Dual compound saturated fabric
5- SealLap® Self-Adhered side lap

Modifleece™

Fleeceback SBS Base Sheet

Features & Benefits

- Versatile: over semi-rough/irregular substrates; under torch or self-adhered APP/SBS cap sheets
- Tough polyester reinforced bottom surface fabric provides strong foam adhesive bond for higher wind uplift resistance
- Provides a strong and durable waterproofing substrate for other roofing membraneplies
- Quick dry-in adhered non-penetrating system: no fasteners needed
- Cost effective and efficient recover option on occupied buildings



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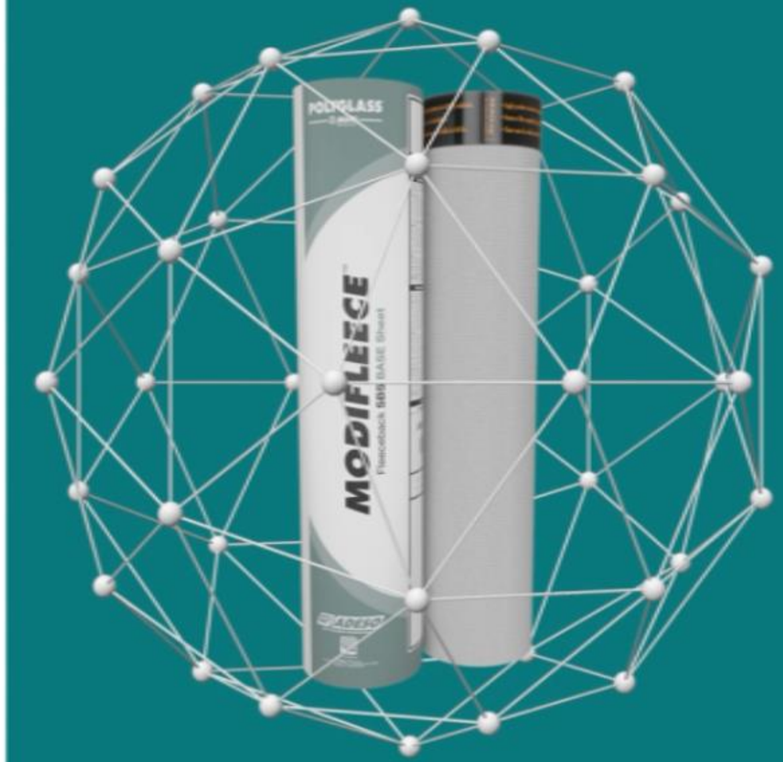


MODIFLEECE
FLEECE-BACKED SBS MODIFIED BITUMEN BASE SHEET

POLYGLASS®

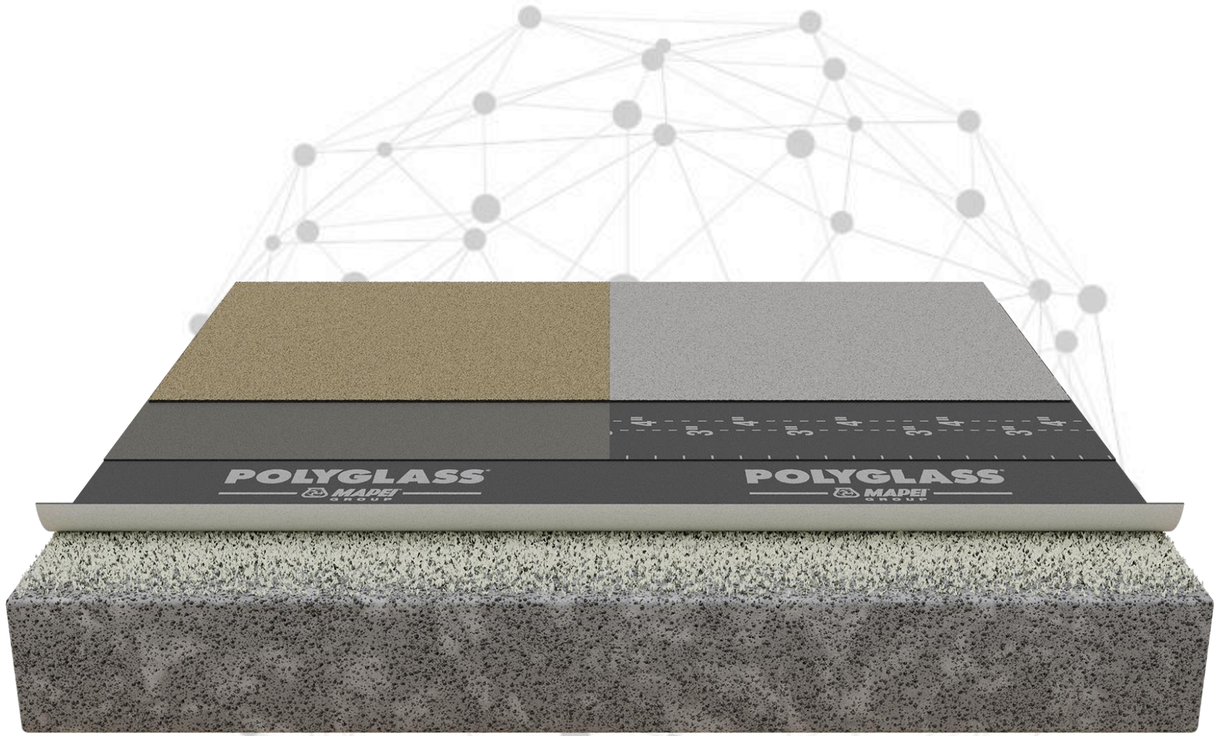
MAPEI® GROUP

Modifleece™

Fleeceback SBS Base Sheet

Key Advantages on LWC

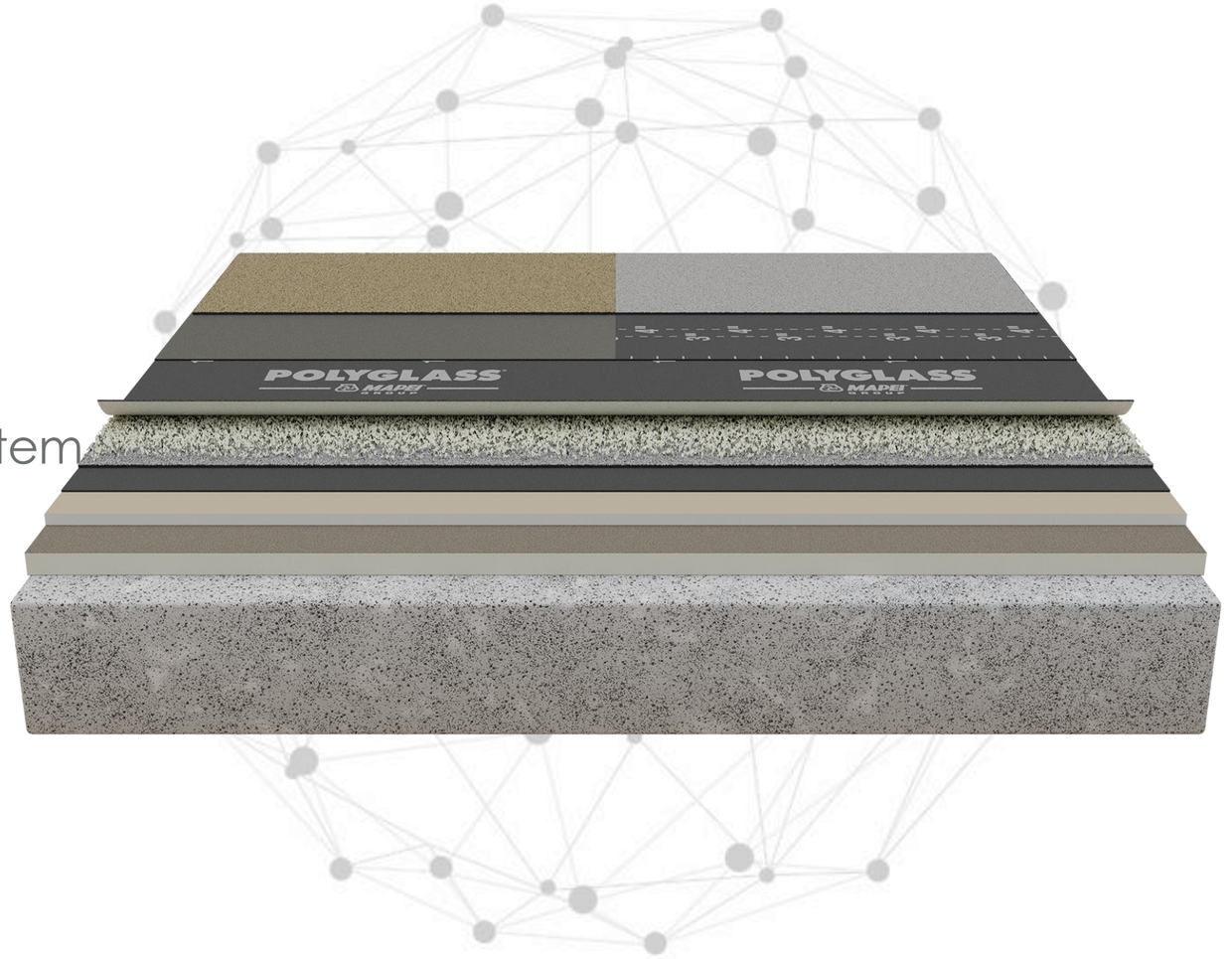
- ✓ **No fasteners** = increased install speed + better performance
- ✓ Reduced Labor and cost due to no fasteners and no requirement for interply
- ✓ Non-penetrating system with redundant layers
- ✓ Odorless, mess-free, flame-free when used with self-adhered cap
- Current market solution(s):
  - Mechanically attached modified base sheet
  - Foam adhered Fleeceback PVC/TPO
  - Cold Applied adhesives + modified sheets



Modifleece™

Fleeceback SBS Base Sheet

Key Advantages on Recover



Key advantage:

- Extend life (and warranty) of existing roof system
- Fast installation and high wind resistance
- Application to APP or SBS granulated or smooth membranes
- Warranty up to 30 years
- Current market solution(s):
  - Prime and torch modified cap sheet
  - Foam adhere coverboard and install base & cap
  - Coat roof with liquid-applied coating

POLYGLASS®

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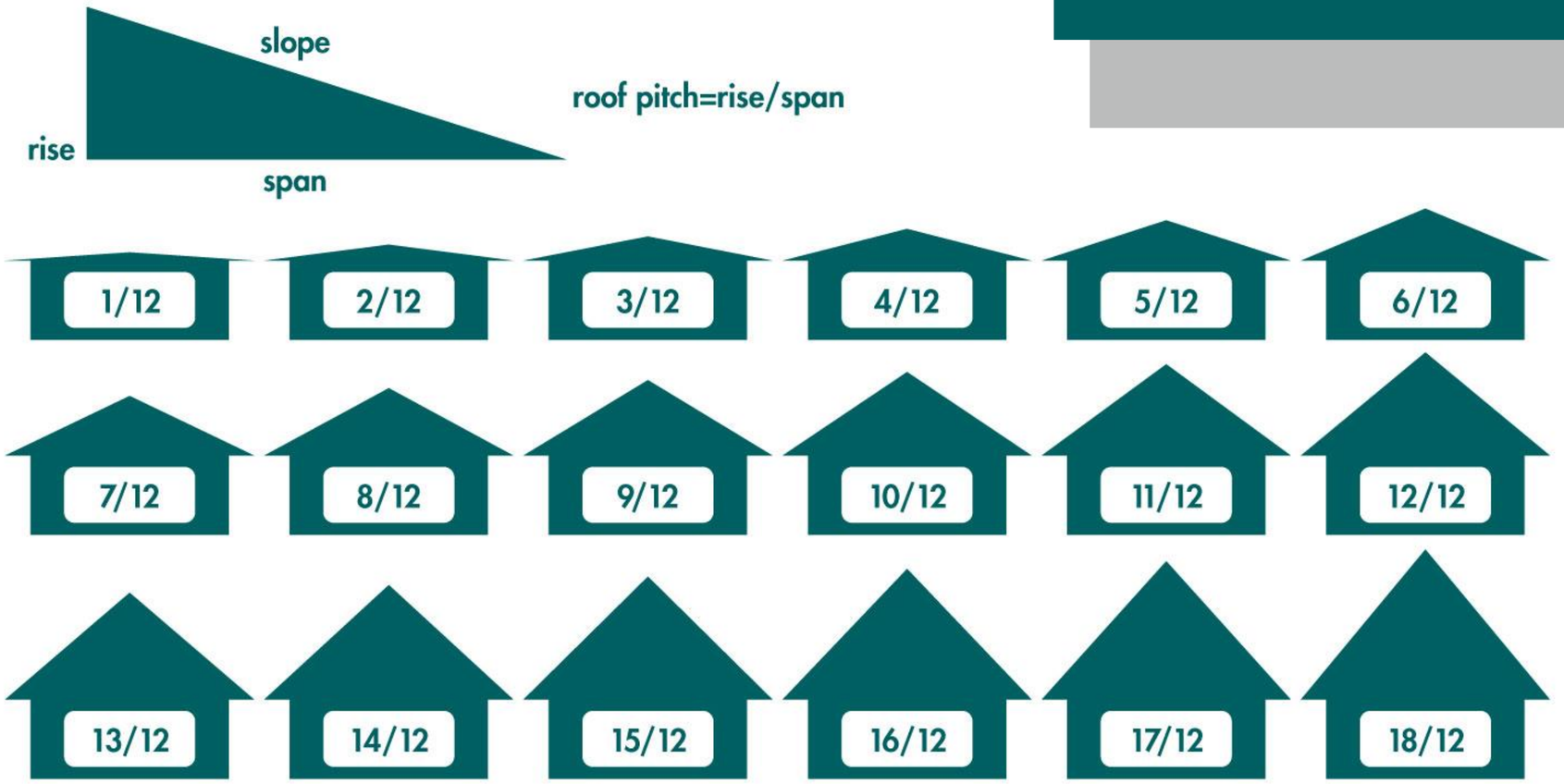
Polystick® Roof Underlayments

What makes a roof a Low Slope or Steep Slope roof?



Steep-Slope Roof Systems

Metal Roof

Tile Roof

Shingle Roof

Self-Adhered Underlayments

Specialty Underlayments for a variety of steep-slope roof systems!

Polystick® TU MAX

- Concrete & Clay Tile

Polystick® TU Plus

- Concrete & Clay Tile
- Shingles & Metal

Polystick® TU P

- Semi-Granulated
- Concrete & Clay Tile

Polystick® MTS Plus

- High-Temp Formulation
- Primarily for Metal Roofs or Mechanically Attached Tile

Polystick® XFR

- Fire Rated
- Primarily for Metal Roofs

Polystick® IR-Xe

- Ice & Water Protection
- Asphalt Shingle

Anchor Sheet – NOT SA

Polyanchor® HV (D226)

- Nailable anchor sheet
- Asphalt Shingle, Tile, Metal, Wood Shakes, and Slate

Product Dat

Exposure Limit	Thickness	Coverage
30 days		
• Polyanchor® HV	55 mils (1.4mm)	200sq. ft
90 days		
• Polystick® IR-Xe	60 mils (1.5mm)	196 sq. ft
180 days		
• Polystick® TU Max	60 mils (1.5mm)	200 sq. ft
• Polystick® TU P	130 mils (3.3mm)	100 sq. ft
• Polystick® MTS Plus	60 mils (1.5mm)	200 sq. ft
• Polystick® XFR	80 mils (2.0mm)	150 sq. ft
360 days * unless otherwise limited by local authorities		
• Polystick® TU Plus	80 mils (2.0mm)	200 sq. ft

8th Edition
2023 Florida Building Code

Steep-Slope Underlayments

MIAMI-DADE COUNTY APPROVED Miami-Dade N.O.A.s

Division of Professions · F B C · FLORIDA BUILDING COMMISSION CODES AND STANDARDS · Department of Business and Professional Regulation FBC Approvals (HVHZ)

CLASSIFIED c UL us UL Class A Listings

Senate Bill 2D – 2022 Legislature

(c) For a roof that is at least 15 years old, an insurer must allow a homeowner to have a roof inspection performed by an authorized inspector at the homeowner's expense before requiring the replacement of the roof of a residential structure as a condition of issuing or renewing a homeowner's insurance policy. The insurer may not refuse to issue or refuse to renew a homeowner's insurance policy solely because of roof age if an inspection of the roof of the residential structure performed by an authorized inspector indicates that the roof has 5 years or more of useful life remaining.

Senate Bill 2D – 2022 Legislature

(5)(a) As used in this subsection, the term "authorized inspector" means an inspector who is approved by the insurer and who is:

1. A home inspector licensed under s. 468.8314;

2. A building code inspector certified under s. 468.607;

3. A general, building, or residential contractor licensed under s. 489.111;

4. A professional engineer licensed under s. 471.015;

5. A professional architect licensed under s. 481.213; or

6. Any other individual or entity recognized by the insurer as possessing the necessary qualifications to properly complete a general inspection of a residential structure insured with a homeowner's insurance policy.

(b) An insurer may not refuse to issue or refuse to renew a homeowner's policy insuring a residential structure with a roof that is less than 15 years old solely because of the age of the roof.

Tile Roof Coverings

Tile Applications

A major code change is that **Underlayment Assemblies** shall be tested in accordance with FM 4474 or UL 1897. The Maximum Design Pressures (MDP) of tested assemblies will be listed in FBC Product Approvals and NOAs, similarly to low-slope Approvals.
Refer to current FBC Product Approvals (FL5259-R41) for Polyglass' tested assemblies and associated design pressures.
HVHZ I NON-HVHZ

Direct to Deck:

Direct to Deck Underlayments may be accepted in the HVHZ (Broward and Miami-Dade Counties) and NON-HVHZ provided the underlayment meets the designed wind uplift requirements of the project. Check with local jurisdictions for approval.

Polyglass' Solution:
In Polyglass' FBC Approvals, UDL-4 on page 6 (HVHZ) or UDL-7 on page 7 (NON-HVHZ): **TU Max or TU Plus direct to deck** over min. 15/32" deck. MDP= - 165 psf.

Recover Or Mechanically Attached Anchor Sheet:

Where direct to deck application is not feasible or preferred, or where you encounter a pre-existing self-adhered on the deck that you cannot remove, an anchor sheet can be installed atop the wood decks. It is the code intent that the underlayment assembly, including the anchor sheet, is tested to meet the design wind uplift requirements. This may affect the type and/or fastening pattern of the anchor sheet that you are used to installing.

Polyglass' Solution:
Polyanchor HV is a high performing, modified bitumen anchor sheet with excellent pull-through capabilities that has been tested to achieve superior uplift values with enhanced fastening, in conjunction with Polyglass self-adhered tile underlayments. Polyanchor has 2.5x greater nail pull through over 80% stronger top surface bond with Polystick Underlayments vs conventional felts.*
In Polyglass' FBC Approvals, UDL 26 on page 9 (HVHZ) or UDL-61 on page 14 (NON-HVHZ): **TU Max or TU Plus over nailed anchor sheet Polyanchor HV** over min. 19/32" deck. MDP= -135 psf.
The Polyanchor HV fastening rate can be enhanced by an engineer to reach up to -200 psf over 19/32" deck.

Tile Adhesive Approval

5.6.1 Adhesive-set tile is limited to use of the following underlayment / tile-adhesive combinations.

TABLE 2A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS[1]					
	TILE-ADHESIVE OPTIONS AND MIAMI-DADE NOA				
	DAP PRODUCTS		DUPONT DE NEMOURS	ICP CONSTRUCTION	
	STORMBOND	STORMBOND 2	TILE BOND	POLYSET AH-160	POLYSET RTA-1
UNDERLAYMENT	NOA 23-0327.12	NOA 22-0512.02	FL22525 & NOA 22-0614.05	NOA 23-0614.01	NOA 22-0614.08
Elastoflex S6 G	Yes	Yes	Yes	Yes	Yes
Polyflex SA P	Yes	Yes	Yes	Yes	Yes
Polystick TU Max	Yes	Yes	Yes	Yes	Yes
Polystick TU P	Yes	Yes	Yes	Yes	Yes
Polystick TU Plus	Yes	Yes	Yes	Yes	Yes

Direct to Deck - N.O.A.s

Deck Type 1:	Wood, non-insulated
Deck Description:	15/32" PS 1-09 rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with 0.113" x 2-3/8" ring shank nails spaced 6" o.c. along the perimeter and intermediate supports maximum spaced 24" o.c.
System Type F(2):	Membrane adhered direct to deck.
Membrane:	**Polystick TU Plus**, HydraGuard Dual Pro** or HydraGuard Tile Pro****, back-nailed using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps max 12" o.c.
Surfacing:	See General Limitation 2.
Underlayment Uplift Design Pressure:	-82.5 psf*

*** Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system. Refer to roof system NOA for maximum design pressure of the final roof assembly.**

****Winter Haven, FL. manufacturing location only.**

Deck Type 1:	Wood, non-insulated
Deck Description:	15/32" PS 1-09 rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with 0.113" x 2-3/8" ring shank nails spaced 6" o.c. along the perimeter and intermediate supports maximum spaced 24" o.c.
System Type F(5):	Membrane adhered direct to deck.
Membrane:	**Polystick TU Max****, back-nailed using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps max 12" o.c.
Surfacing:	See General Limitation 2.
Underlayment Uplift Design Pressure:	-105 psf*

*** Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system. Refer to roof system NOA for maximum design pressure of the final roof assembly.**

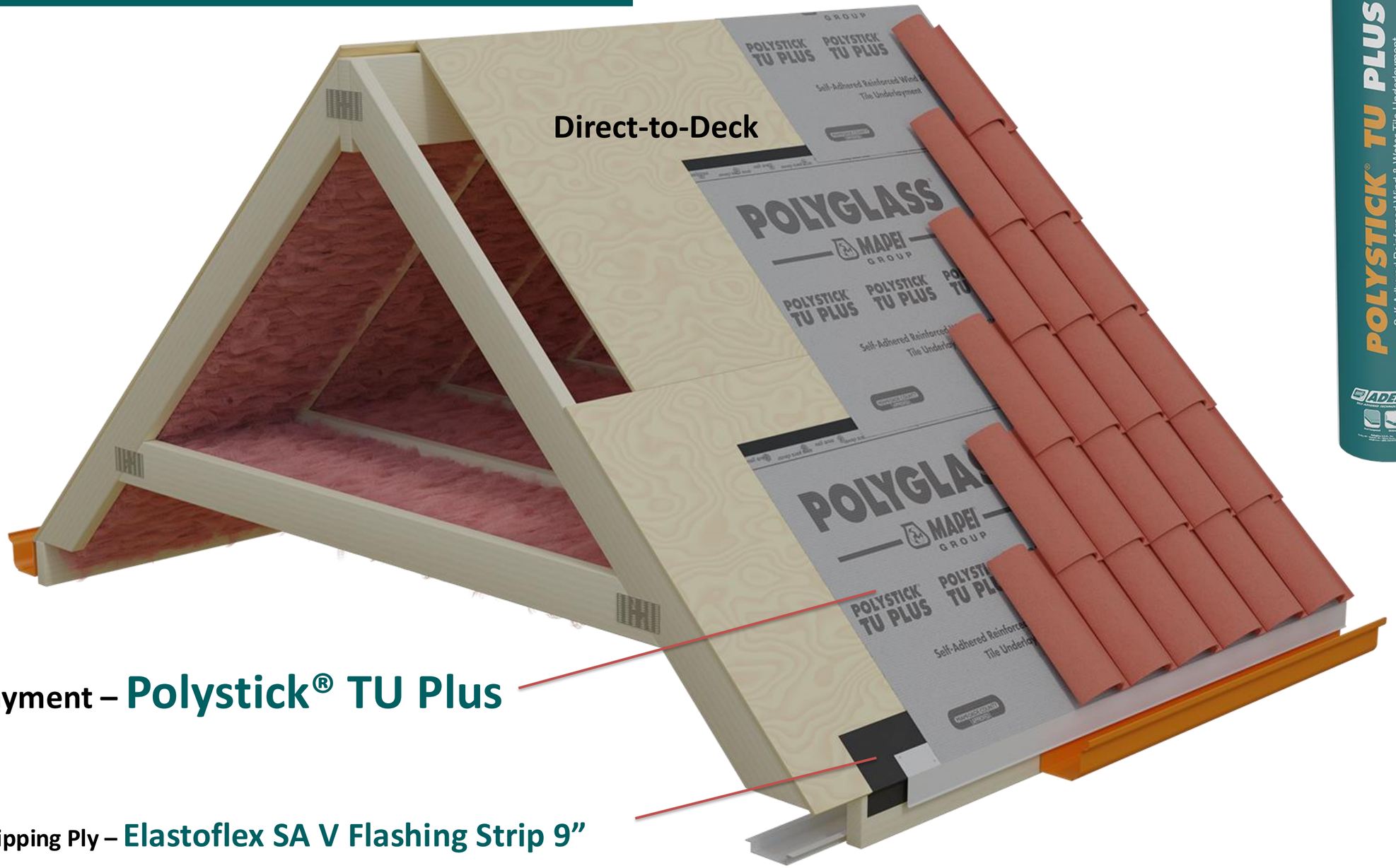
****Winter Haven, FL. manufacturing location only.**

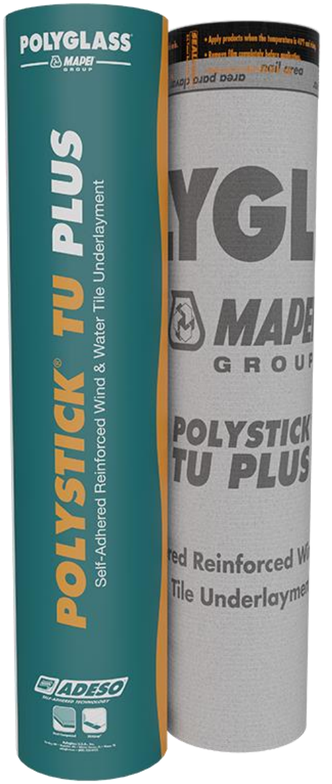
Direct to Deck – FBC HVHZ Approvals

TABLE 4A: ALLOWABLE DESIGN PRESSURES, ADHERED, DIRECT-TO-DECK UNDERLAYMENT SYSTEMS						
Unless otherwise noted, referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.						
SYSTEM NO.	DECK	PRIMER	JOINT TREATMENT	BASE PLY	CAP PLY	MDP (PSF)
UDL-3.	Nominal 1-inch **wood plank**	(Optional) PG100 or ASTM D41	None	(Optional) Polystick MTS Plus, self-adhered and back-nailed max. 12-inch o.c.	Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-150.0
UDL-4.	**New:** Plywood, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category **Reroof:** Plywood, APA rated sheathing, 32/16, Exposure 1, **PS1**, 15/32 category	None	None	None	Polystick TU Max, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-165.0
UDL-5.	**New:** Plywood, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category **Reroof:** Plywood, APA rated sheathing, 32/16, Exposure 1, **PS1**, 15/32 category	(Optional) PG100 at 0.5 gal/sq.	None	Polystick MTS Plus, self-adhered and back-nailed max. 12-inch o.c.	Polystick TU Max, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-202.5
UDL-6.	**New:** Plywood, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category **Reroof:** Plywood, APA rated sheathing, 32/16, Exposure 1, **PS1**, 15/32 category	PG100 at 0.5 gal/sq.	None	None	Polystick TU Max, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-255.0
UDL-7.	Structural concrete	PG100 or ASTM D41	None	(Optional) Polystick MTS Plus, self-adhered and back-nailed using FBC HVHZ approved fasteners and plates, max. 12-inch o.c.	Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed using FBC HVHZ approved fasteners and plates, max. 12-inch o.c.	-202.5

Tile

Tile Roof System





SA/Anchor Sheet - N.O.A.s

Deck Type 1:	Wood, non-insulated
Deck Description:	15/32" PS 1-09 rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with 0.113" x 2-3/8" ring shank nails spaced 6" o.c. along the perimeter and intermediate supports maximum spaced 24" o.c.
System Type E(11):	Anchor/Base sheet mechanically fastened to deck. Membrane subsequently adhered.
Anchor/Base Sheet:	**Polyanchor HV**, mechanically attached to the deck as described below:
Fastening:	Attach base sheet using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps, Trufast VERSA-FAST Fasteners with Trufast VERSA-FAST Metal Plates, Trufast #12 DP Fasteners with Trufast 3" Metal Insulation Plates, Defkast DF-#12-PH3 fasteners with Dekfast PLT-R-3 plates, Dekfast PLT-H-2-7/8 plates, OMG #12 Standard Roofgrip fasteners with OMG 3" Round Metal Plates, and OMG AccuTrac Flat Bottom plates spaced 8" o.c. in a 4" lap and 8" o.c. in three staggered rows in the field.
Membrane:	**Polystick TU Plus**, HydraGuard Dual Pro** or HydraGuard Tile Pro**,** back-nailed using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps max 12" o.c.
Surfacing:	See General Limitation 2.
Underlayment Uplift Design Pressure:	-67.5 psf*

SA/Anchor Sheet - N.O.A.s

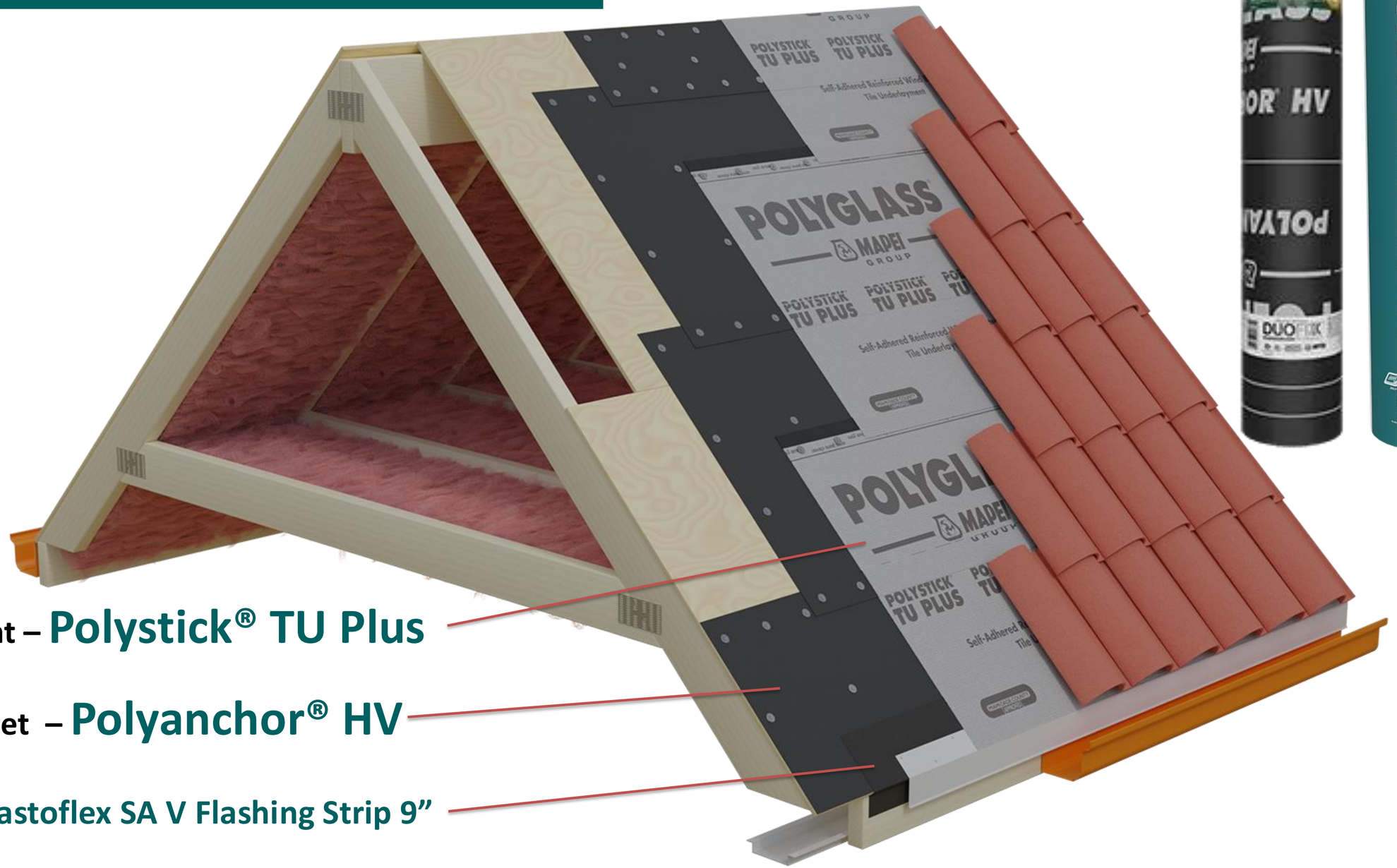
Deck Type 1:	Wood, non-insulated
Deck Description:	19/32" PS 1-09 rated, 40/20 span rating, CDX, 4-ply or greater plywood or wood plank secured with 0.113" x 2-3/8" ring shank nails spaced 6" o.c. along the perimeter and intermediate supports maximum spaced 24" o.c.
System Type E(12):	Anchor/Base sheet mechanically fastened to deck. Membrane subsequently adhered.
Anchor/Base Sheet:	**Polyanchor HV**, mechanically attached to the deck as described below:
Fastening:	Attach base sheet using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps spaced 10" o.c. in a 4" lap and 10" o.c. in three staggered rows.
Membrane:	**Polystick TU Max**,** back-nailed using 12 ga. x 1-$^{1}/_{4}$" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$" diameter tin caps max 12" o.c.
Surfacing:	See General Limitation 2.
Underlayment Uplift Design Pressure:	-75 psf*

SA/Anchor Sheet– FBC HVHZ Approvals

TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS						
**Nails shall be corrosion resistant and be of sufficient length to penetrate through the sheathing by min. 3/16-inch						
Unless otherwise noted, referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.						
SYSTEM NO.	DECK	BASE SHEET		BASE PLY	CAP PLY	MDP (PSF)
		TYPE	ATTACH			
UDL-19.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category	PolyAnchor HV	Min. 12 ga. annular ring shank roofing nails** with 32 ga., 1-5/8-inch diameter tin caps; 6-inch o.c. at the 2-inch wide side laps and 6-inch o.c. at three (3) equally spaced staggered center rows.	(Optional) Polystick MTS Plus, self-adhered and back-nailed max. 12-inch o.c.	Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-112.5
UDL-20.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category	PolyAnchor HV	Min. 12 ga. annular ring shank roofing nails** with 32 ga., 1-5/8-inch diameter tin caps; 5-inch o.c. at the 4-inch wide side laps and 5-inch o.c. at three (3) equally spaced staggered center rows.	(Optional) Polystick MTS Plus, self-adhered and back-nailed max. 12-inch o.c.	Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-120.0
UDL-21.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, **PS1**, 19/32 category	PolyAnchor HV	Min. 12 ga. annular ring shank roofing nails** with 32 ga., 1-5/8-inch diameter tin caps; 6-inch o.c. at the 4-inch wide side laps and 6-inch o.c. at four (4) equally spaced staggered center rows.	(Optional) Polystick MTS Plus, self-adhered and back-nailed max. 12-inch o.c.	Polyflex SA P, Polyflex SA P FR, Polystick TU Max, Polystick TU P, Polystick TU Plus, Polystick MTS Plus or Polystick XFR, self-adhered and back-nailed max. 12-inch o.c.	-135.0

Tile

Tile Roof System



Underlayment – **Polystick® TU Plus**

Anchor Sheet – **Polyanchor® HV**

Stripping Ply – **Elastoflex SA V Flashing Strip 9”**

Metal/Shingle Roof Coverings

Metal and Shingle Applications

For metal and shingle roof coverings, the underlayments do not need to be tested, but need to meet one of the following criteria.

1. ASTM D1970 modified bitumen self-adhered installed over the full roof deck, such as **Polystick TU Plus, IR-Xe, MTS Plus** or **XFR**. Refer to Table 2 and Table 3 in the current FBC Approvals for roof covering and substrate options.
HVHZ I NON-HVHZ

2. Min 3-3/4" self-adhering tape such as **Elastoflex SA V Strips** installed over the plywood joints, plus a layer of ASTM D226 Type II (Polyanchor HV) or similar, mechanically attached. Note that for roofs less than 4:12 pitch, two (2) layers of ASTM D226 Type II (Polyanchor HV) or similar are required.

3. Two layers of ASTM D226 Type II (Polyanchor HV) or similar installed over the full roof deck.

PolyAnchor HV	ASTM D226, D2626
Polystick IR-Xe	ASTM D1970
Polystick MTS PLUS	ASTM D1970, FRSA/TRI, TAS 103
Polystick TU MAX	ASTM D1970, FRSA/TRI, TAS 103
Polystick TU PLUS	ASTM D1970, FRSA/TRI, TAS 103
Polystick XFR	ASTM D1970, FRSA/TRI, TAS 103
Polystick MX	ASTM D1970

Metal/Shingle Underlayment UL

3. **Deck:** C-15/32 or spaced sheathing **Incline:** Unlimited **Impact:** 4

Base Sheet (optional): — Minimum one ply Type 15 or Type 30 asphalt saturated felt or Type G1 or Type G2 asphalt saturated glass mat, or “PolyAnchor HV” or “Elastobase V” or "PolyAnchor UDL 40" mechanically fastened, or “Polystick XFR”, "Polystick MTS", "Polystick MTS Plus", "Polystick MU-X", “Polystick® IR-Xe”, or “PolyVap SA G” self-adhered.

Underlayment: — One ply "Polystick XFR" self-adhered.

Insulation (optional): — "Polytherm" or "Polytherm-H" or any UL Classified polyisocyanurate, perlite, wood fiber or polyisocyanurate/perlite board, any thickness mechanically fastened or adhered with any UL Classified insulation adhesive.

Ply Sheet (optional): — Minimum one ply Type 15 or Type 30 asphalt saturated felt or Type G1 or Type G2 asphalt saturated glass mat or “PolyAnchor HV” or “Elastobase V” or "PolyAnchor UDL 40" mechanically fastened or "Polystick XFR", "Polystick MTS", "Polystick MTS Plus", "Polystick MU-X", “Polystick® IR-Xe”, or “PolyVap SA G” self-adhered.

Surfacing: — Any UL Listed or Classified copper panels or UL Listed or Classified steel standing seam panels, stone coated shingles, 26 gauge minimum.

Asphalt underlayment accessory, "Polystick MTS", "Polystick MTS Plus", "Polystick MU-X", "Xtraflex HTU", "Polystick® IR-Xe", "Polystick TU Plus", or "Polystick XFR" self-adhering, modified bitumen membranes, "PolyAnchor XFR", “PolyAnchor HV” or "PolyAnchor UDL 40" mechanically fastened modified bitumen membrane for use in the installation of Class A asphalt glass fiber mat shingles and Class C asphalt organic felt shingles.

Metal/Shingle – N.O.A.s

Deck Type 1:	Wood, non-insulated
Deck Description:	19/32” plywood or wood plank
System Type F(1):	Membrane adhered direct to deck.
Membrane:	**Polystick IR-Xe, Polystick MTS Plus, Polystick TU Max, Polystick TU Plus or Polystick XFR**, self-adhered in accordance with FBC HVHZ 1518.2.1(1) and back-nailed using 12 ga. x 1-$^{1}/_{2}$” long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-$^{5}/_{8}$” diameter tin caps max 12” o.c.
Surfacing:	See General Limitation 2. **Tile Roofing is not an approved roof covering for use with this assembly.**

Metal/Shingle – FBC HVHZ Approvals

6.4 Underlayment Assemblies with Prescriptive Minimum Attachment for use in NON-TILE applications:

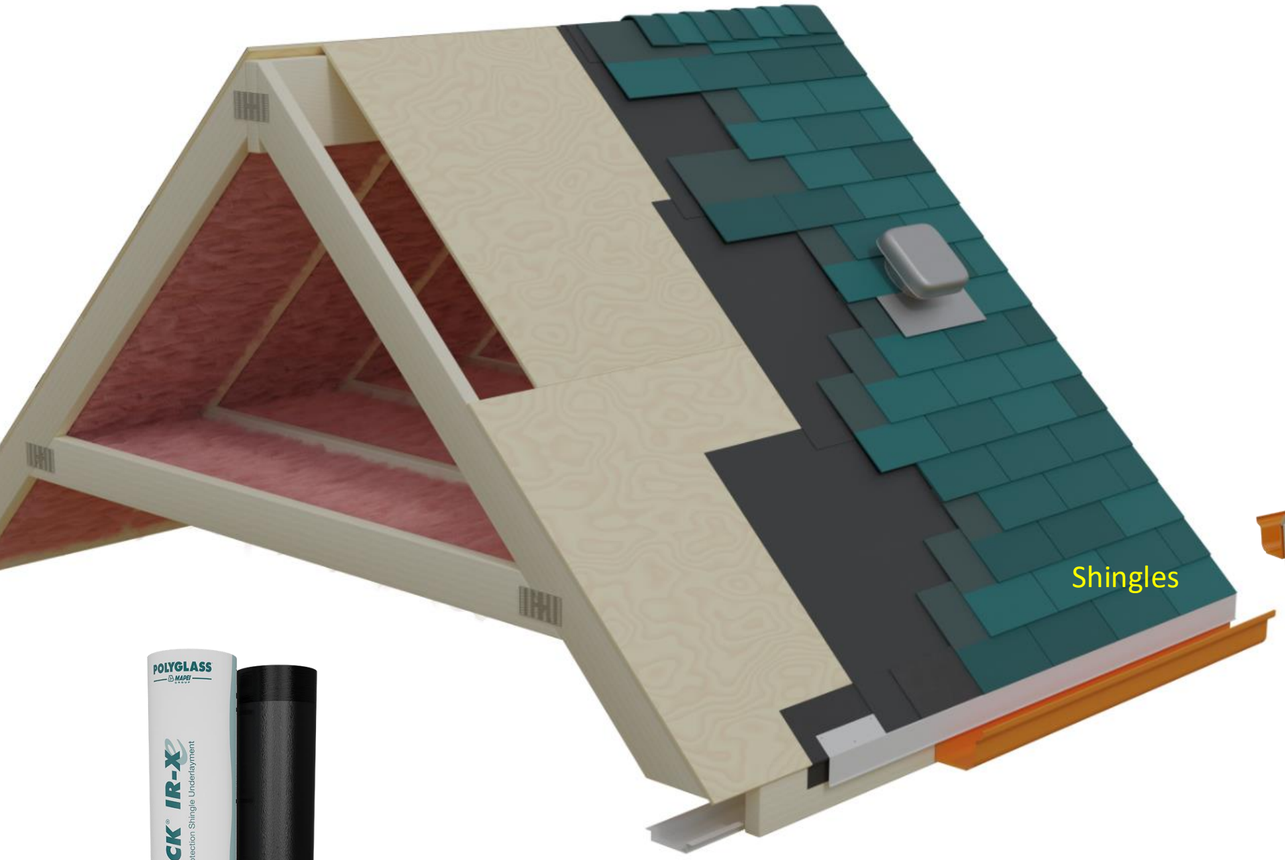
6.4.1

CODE REFERENCE:	**1518.2.1, Option 1:** Underlayment adhered to deck
DECK DESCRIPTION:	Code-minimum, new or existing (roof replacement) wood or structural concrete deck to the satisfaction of the Authority Having Jurisdiction (refer to Table 3 for specific underlayment/substrate combinations)
UNDERLAYMENT:	BASE PLY: (Optional) **Polystick MTS Plus or Polystick XFR** self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5) or FBC HVHZ Approved concrete fasteners and plates.
	CAP PLY: **Polystick IR-Xe, Polystick MTS Plus, Polystick TU Max, Polystick TU Plus or Polystick XFR**, self-adhered in accordance with FBC HVHZ 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5) or FBC HVHZ Approved concrete fasteners and plates.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2 herein.

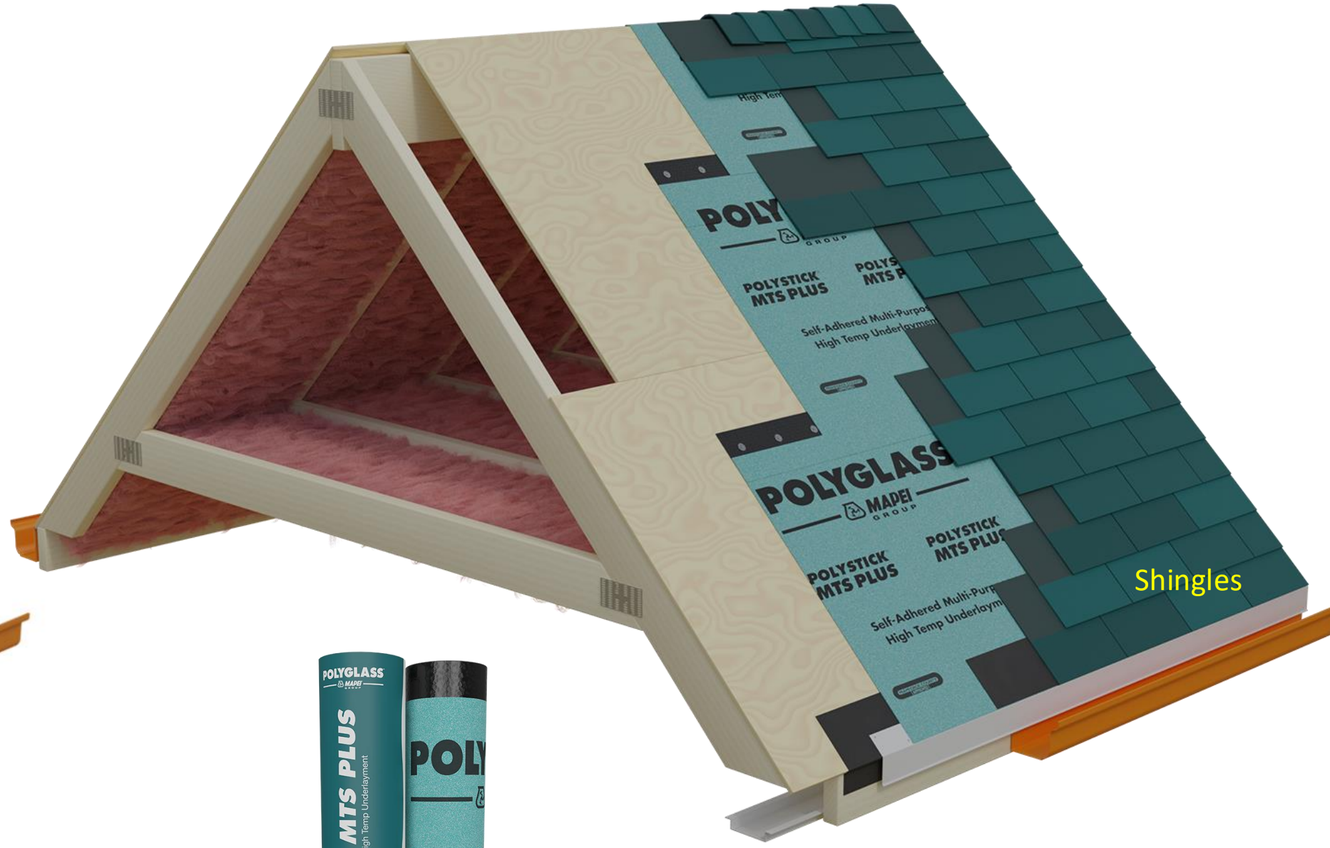
6.4.4

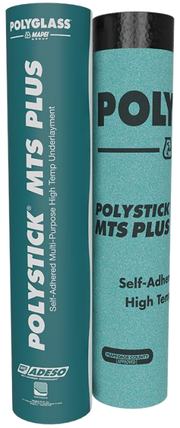
CODE REFERENCE:	**1518.2.1, Option 1 combined with Option 2 or 3:** Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet
DECK DESCRIPTION:	Code-minimum, new or existing (roof replacement) wood deck to the satisfaction of the Authority Having Jurisdiction
SECONDARY WATER BARRIER:	(Optional) **Elastoflex SA V Flashing Strips** self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.
BASE SHEET:	One (1) or two (2) layer(s) of **Elastobase V, Elastobase P, PolyAnchor HV** or FBC HVHZ Approved ASTM D226, Type II felt, in accordance with FBC HVHZ Table 1518.2.1, with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck.
FASTENING:	FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC HVHZ Table 1518.2.1.
UNDERLAYMENT:	BASE PLY: (Optional) **Polystick MTS Plus or Polystick XFR**, self-adhering and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5)
	CAP PLY: **Polystick IR-Xe, Polystick MTS Plus, Polystick TU Max, Polystick TU Plus or Polystick XFR** self-adhering and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5).
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2 herein.

Shingle Roof System



Polystick® IR-Xe

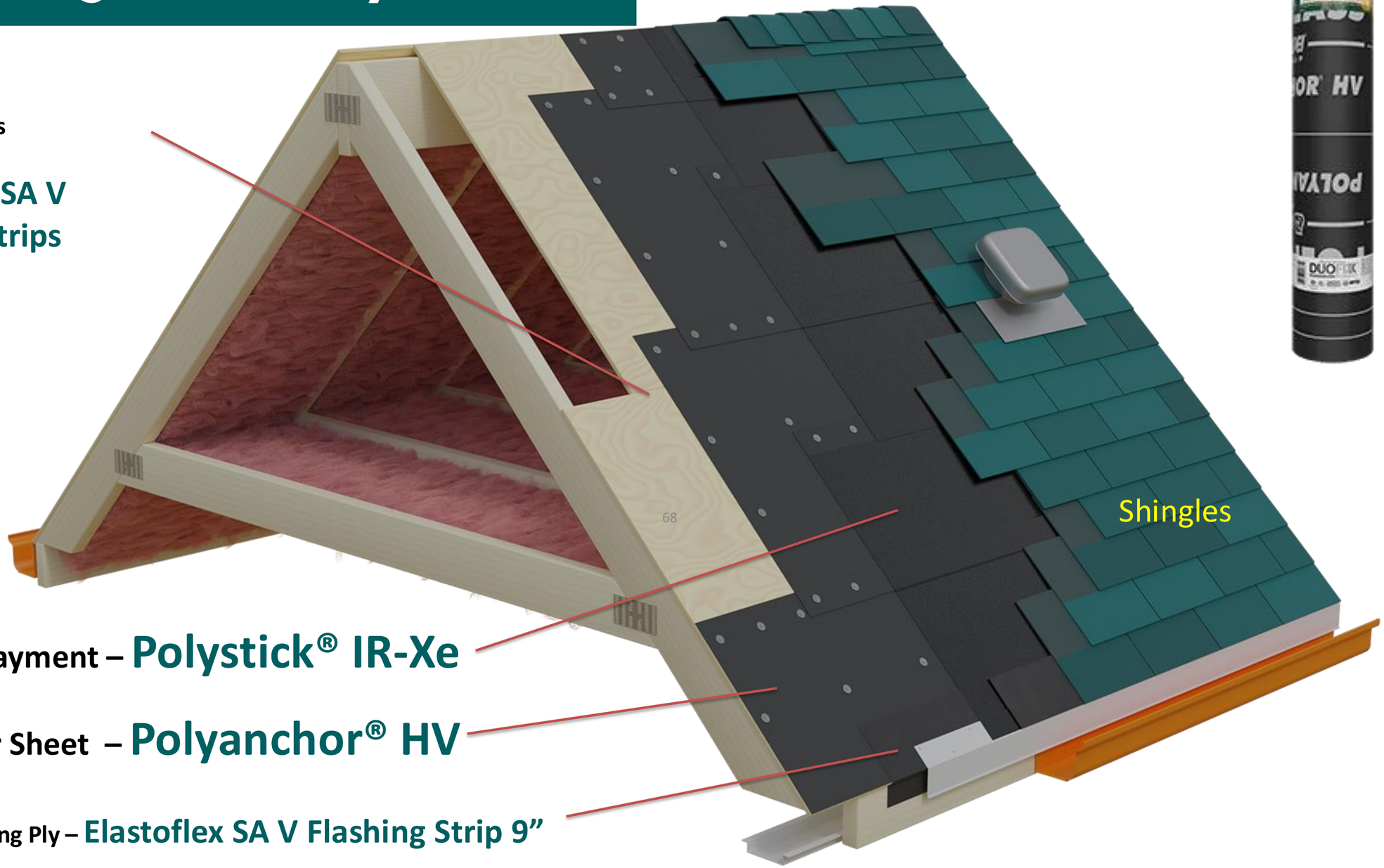




Polystick® MTS Plus

Shingle Roof System

Plywood joints stripped with **Elastoflex SA V Flashing Strips 4” min.**



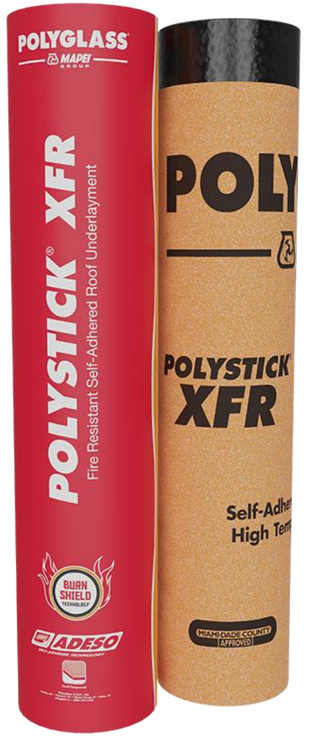
Underlayment – **Polystick® IR-Xe**

Anchor Sheet – **Polyanchor® HV**

Stripping Ply – **Elastoflex SA V Flashing Strip 9”**

Metal Roof System

Direct-to-Deck



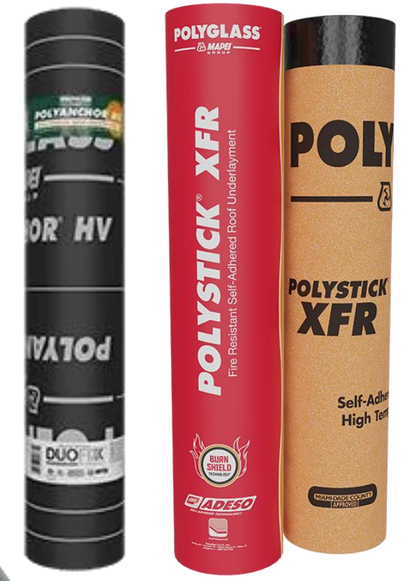
Underlayment – **Polystick® XFR**

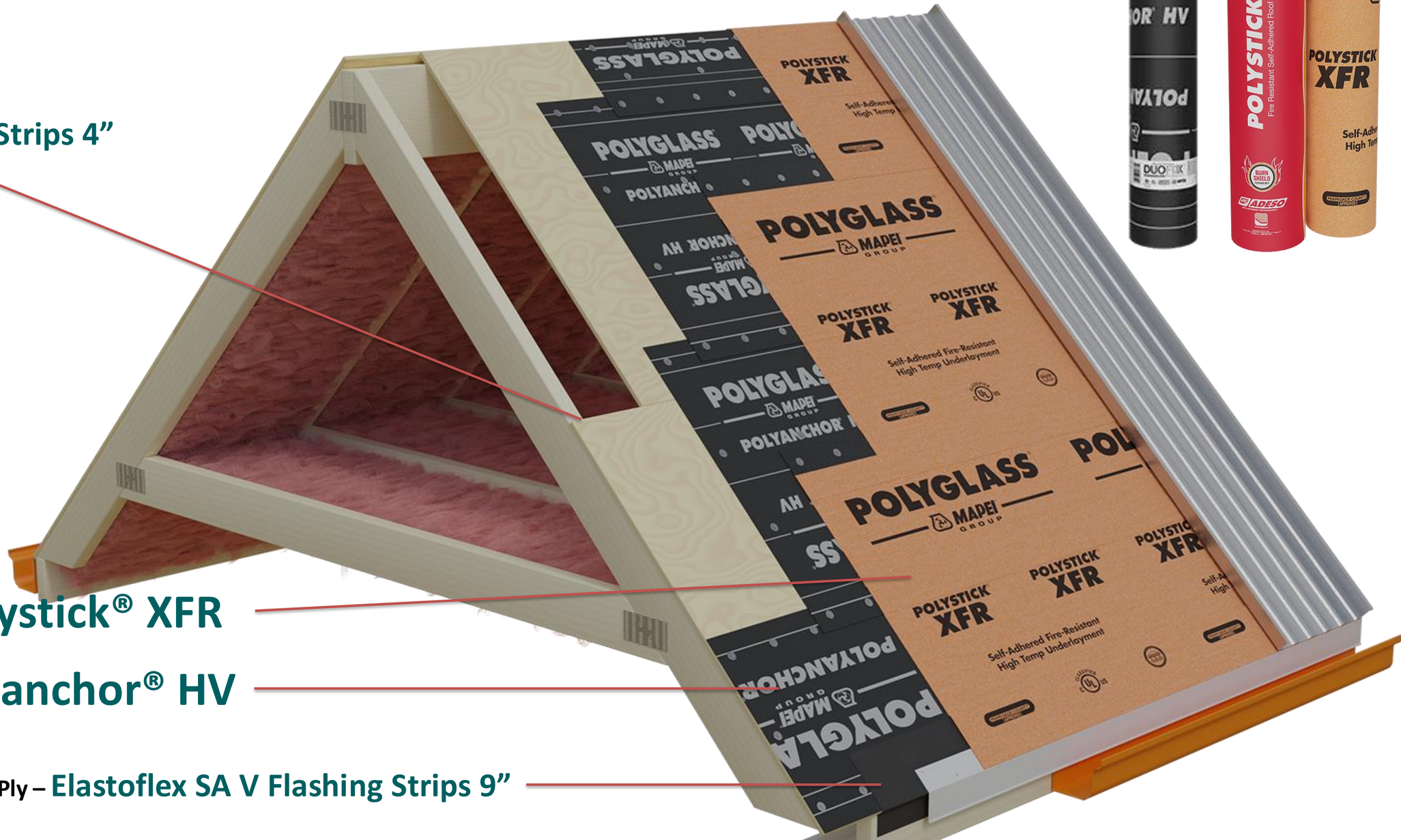
Stripping Ply – **Elastoflex SA V Flashing Strip 9”**

Metal Roof System

Plywood joints

Elastoflex SA V Flashing Strips 4”





Underlayment – **Polystick® XFR**

Anchor Sheet – **Polyanchor® HV**

Stripping Ply – **Elastoflex SA V Flashing Strips 9”**

Competitor Metal Roof System

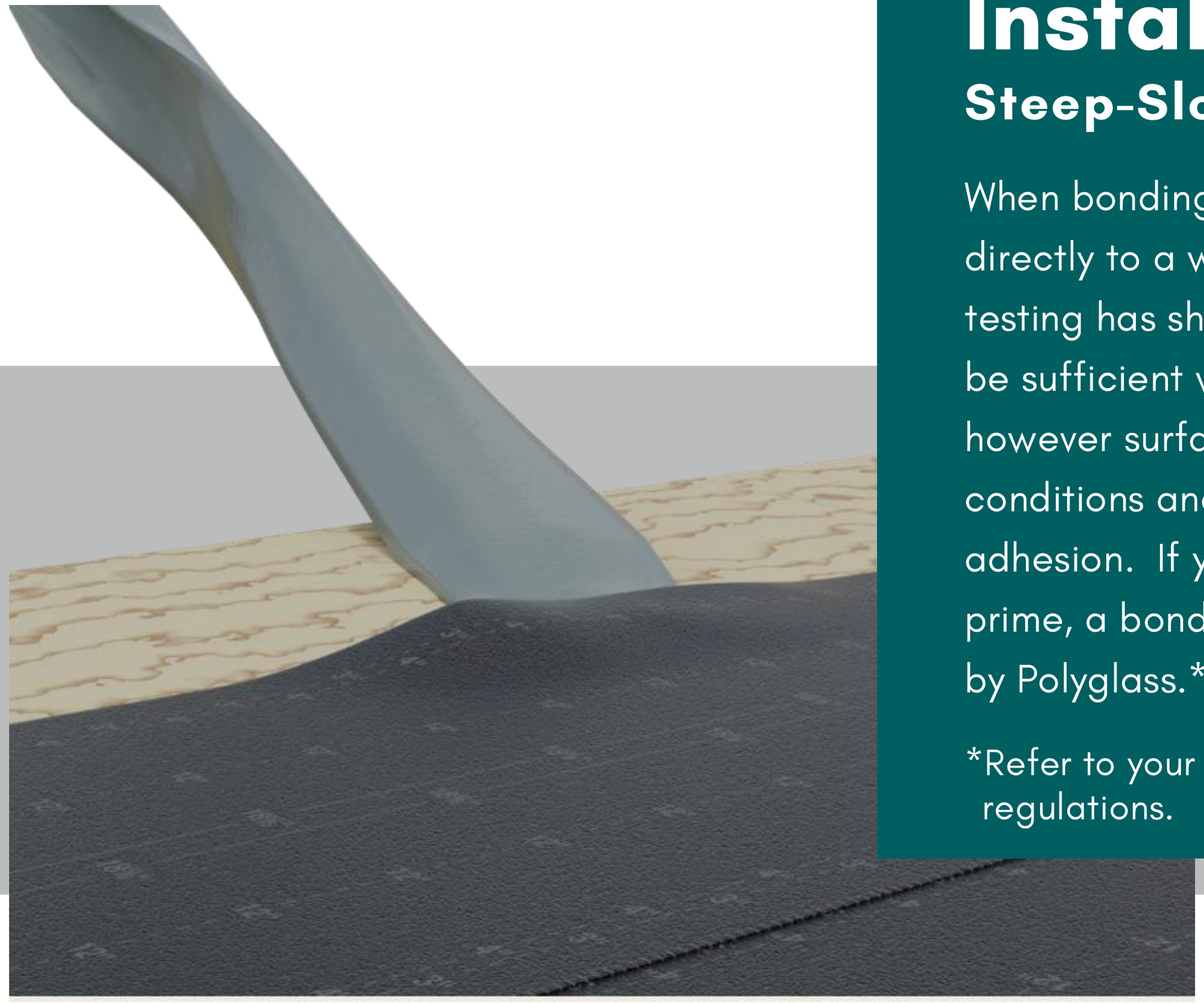
❌ **Exposed tin cap issue**

☹️

Tools


ROOFING AND WATERPROOFING SYSTEMS
POLYGLASS
MAPEI
GROUP
MADE IN U.S.A.
FBC
Florida Building Commission
Premium Self-Adhered Roofing and Waterproofing Underlayment
ROOFING AND WATERPROOFING SYSTEMS
POLYGLASS
MAPEI
GROUP
MADE IN U.S.A.

Deck Sweeping



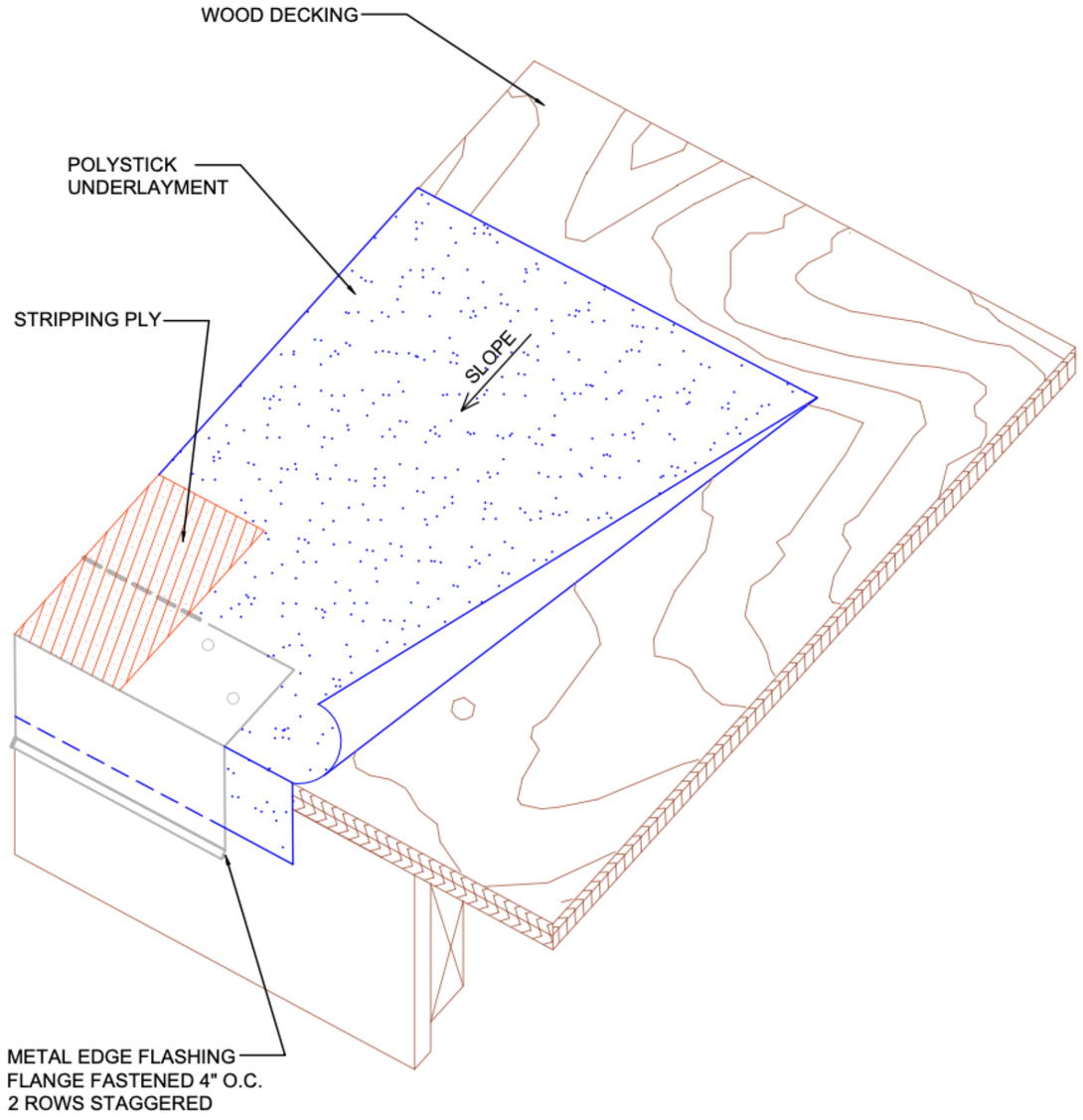
Installation Tips

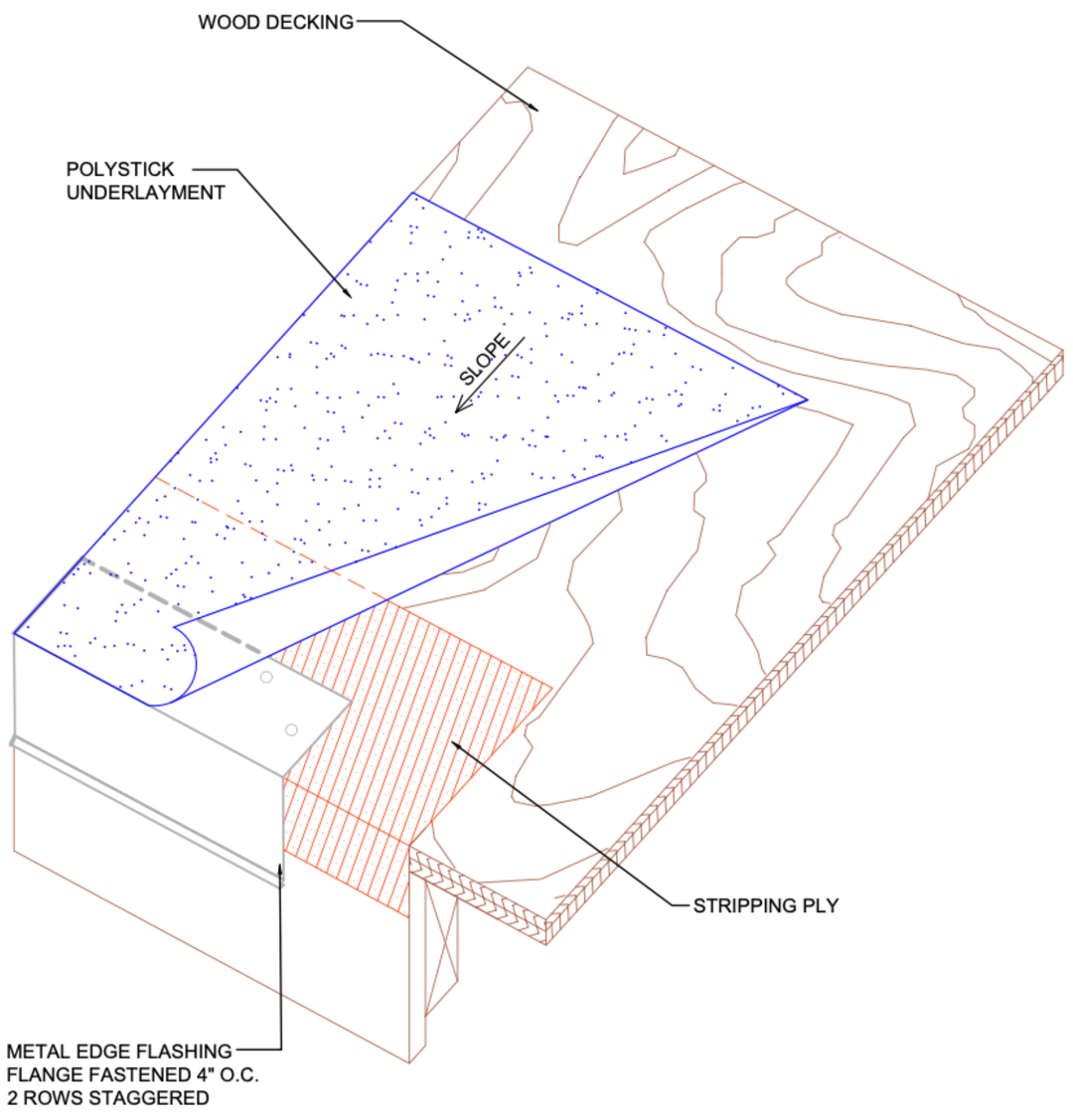
Steep-Slope

When bonding an SA underlayment directly to a wood deck substrate, testing has shown that bond strength can be sufficient without the use of primer, however surface conditions, climatic conditions and wood type can affect adhesion. If you are not intending to prime, a bond test is usually suggested by Polyglass.*

*Refer to your local code body for exact regulations.

Edge Detail Tips





Edge Detail Tips

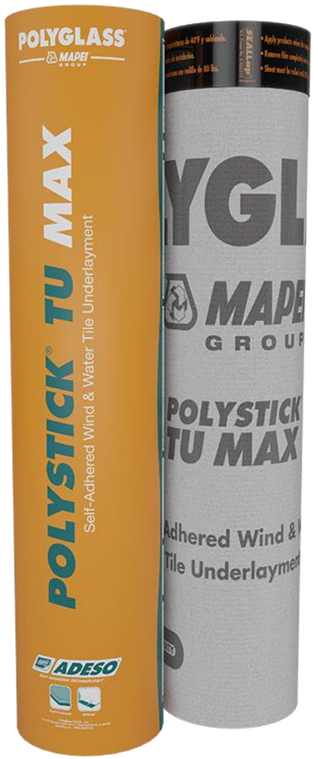
Install strip-in piece down the edge of the roof. Protects metal drip edge.

Approved Primers

Priming is suggested to be performed the same day when intended for use. Prime using sufficient amount and allow to dry to the touch before application. If contaminates get on metal, clean and re-prime using WB 3000 or PG 100.

Edge Detail Tips

Position underlayment and remove release film.



Installation Tips

Steep-Slope

Use modified Roof Cement when installing compound over fabric.

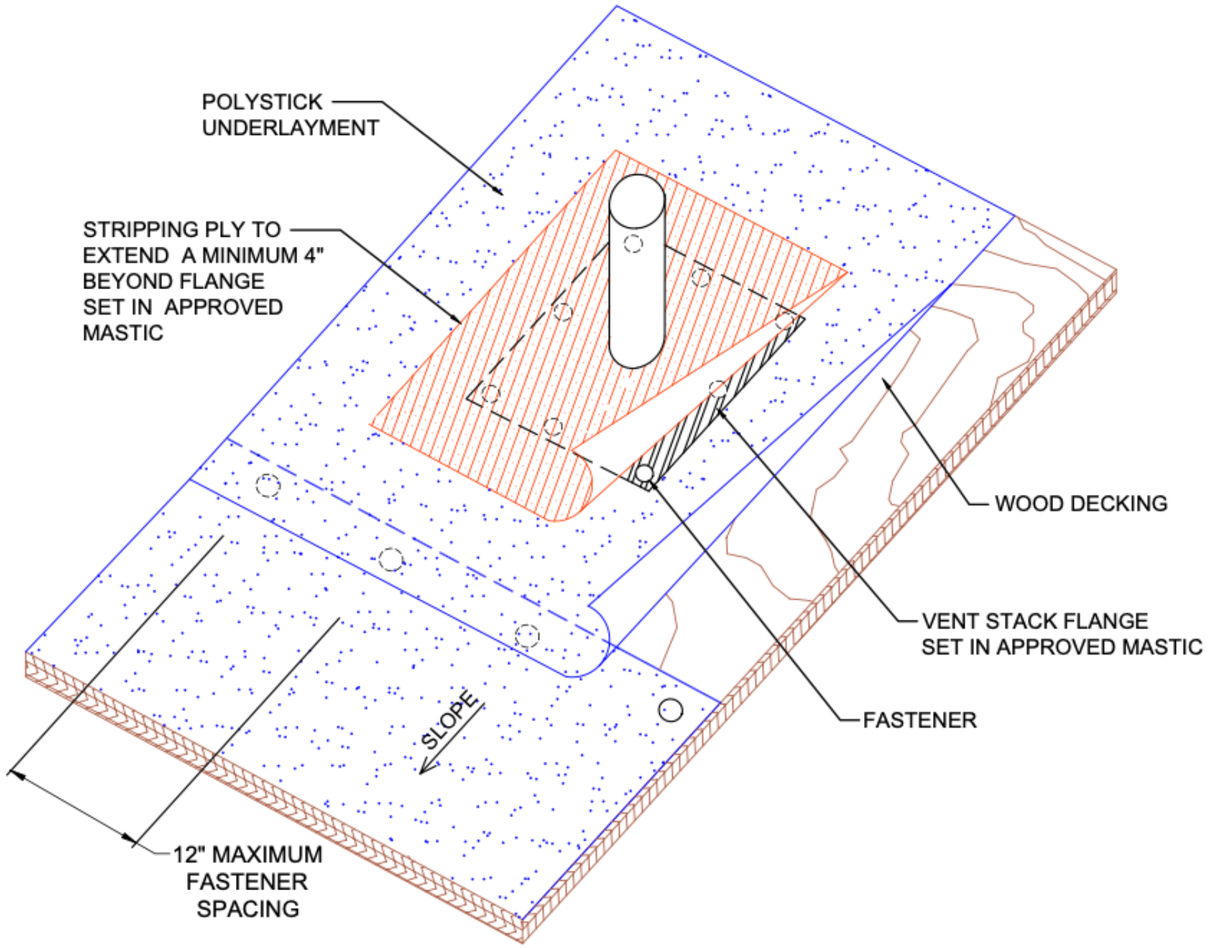
PG 500

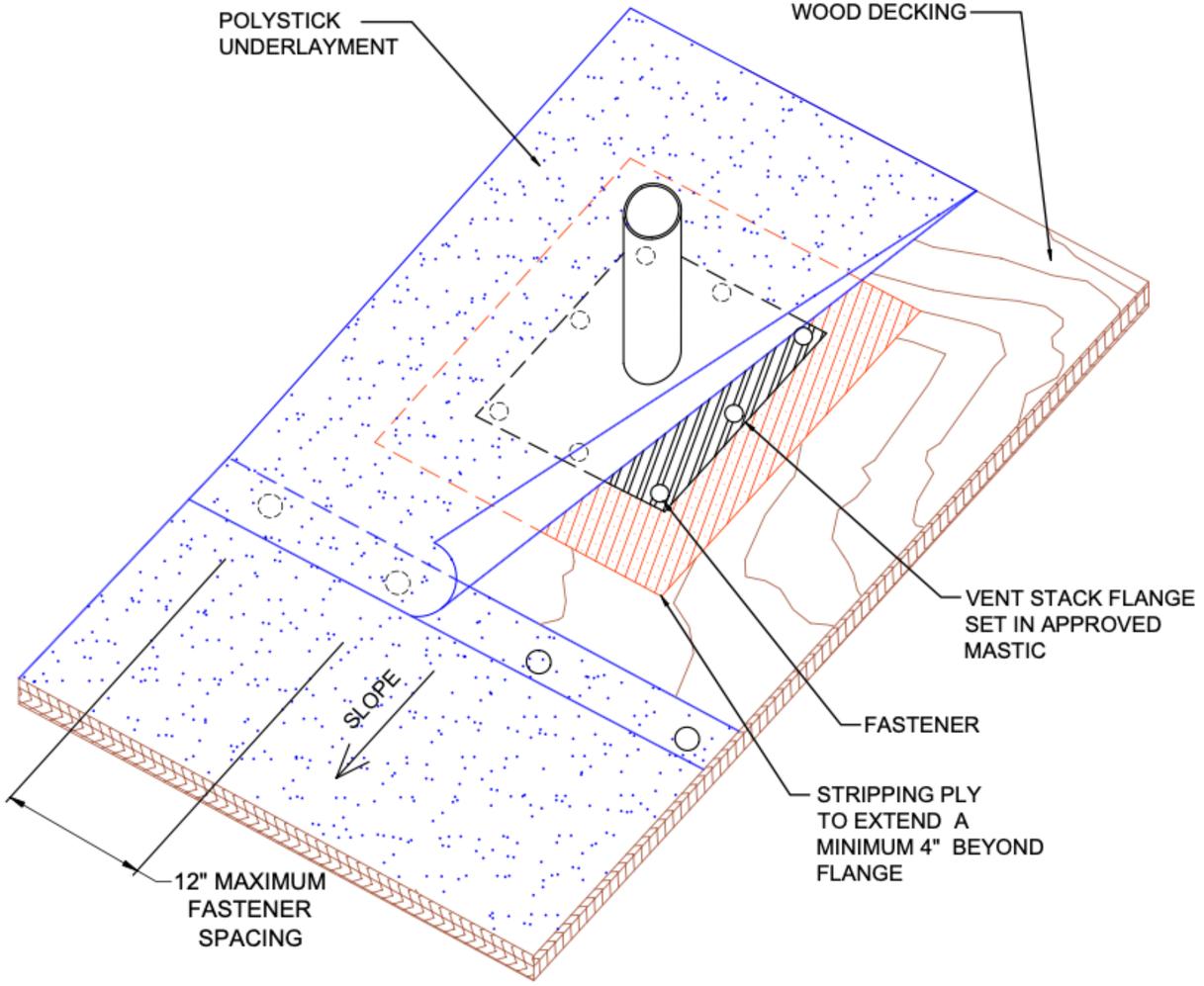
Premium Modified Cement

Polyplus® 50

Premium Modified Wet / Dry Cement

Pipe Detail Tips





Pipe Detail Tips

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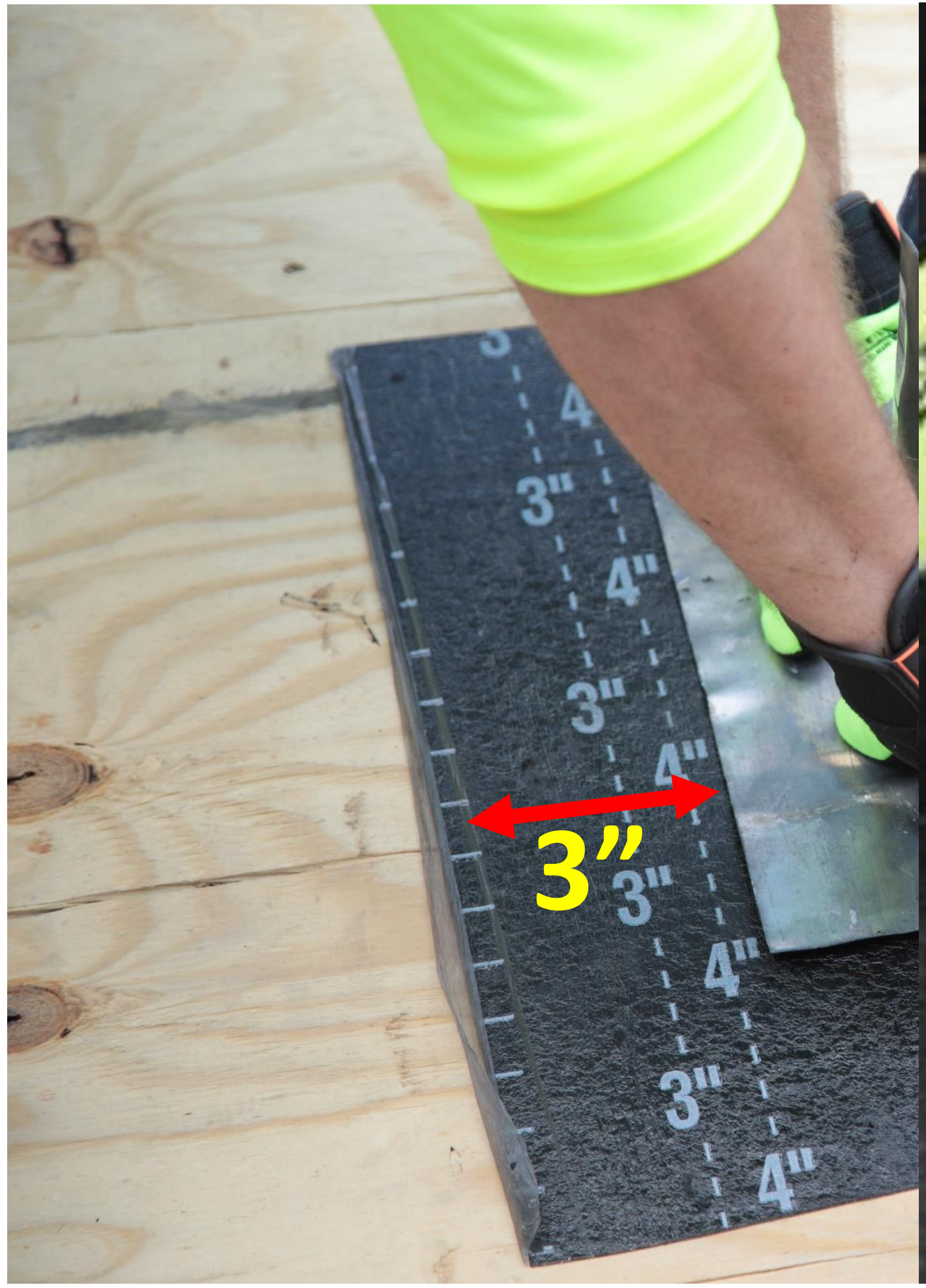
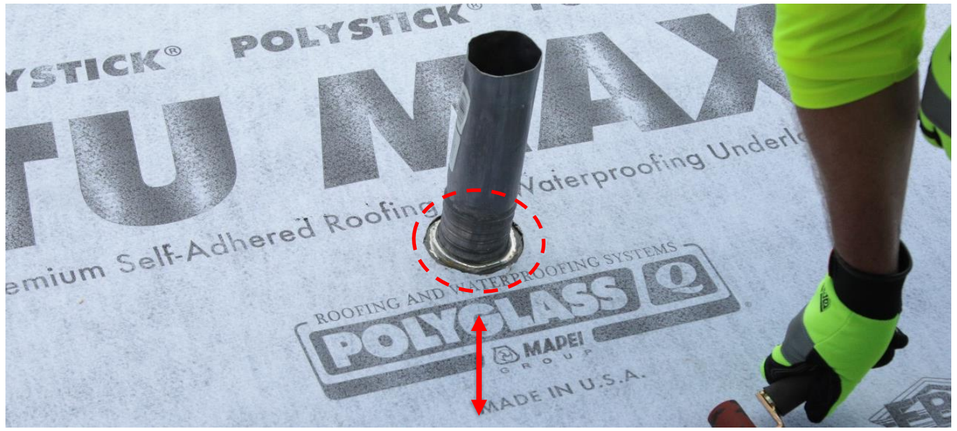




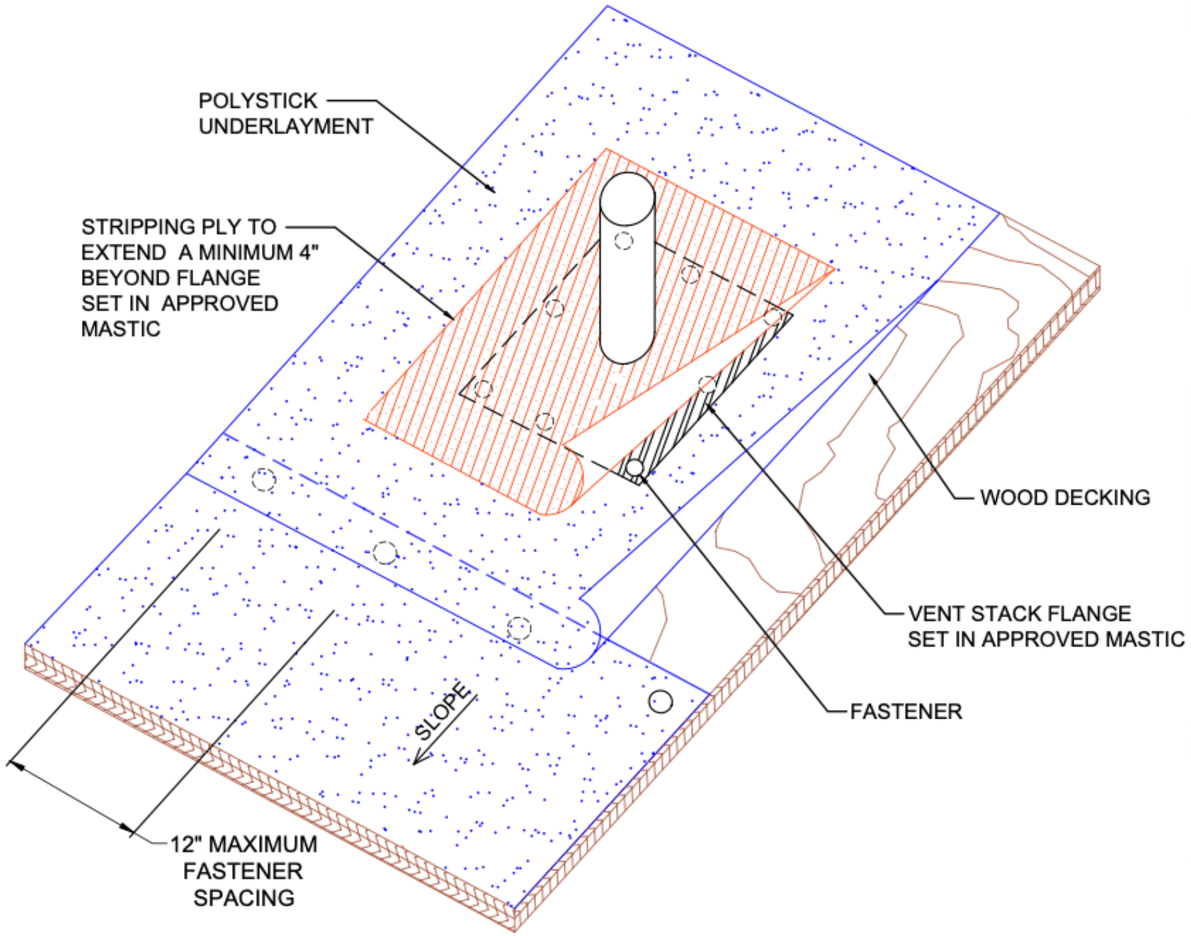
¼” Minimum opening bigger than pipe

Pipe Detail Tips

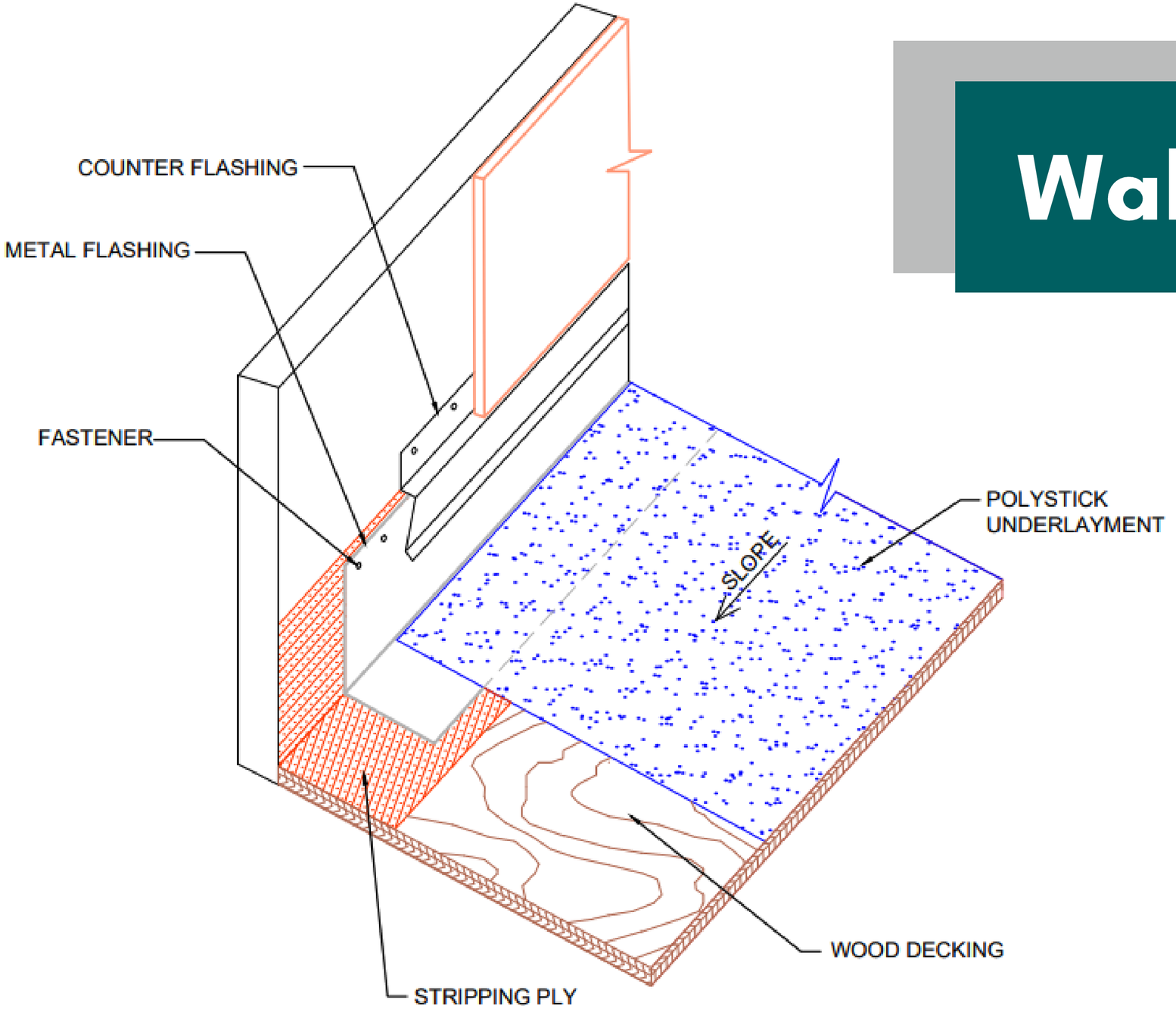
- Underlayment / target pipe opening ¼ “ around
- Hand roll around the pipe
- Apply modified roof cement at opening

Pipe Detail Tips

Pipe installed over underlayment with target



Wall Detail Tips

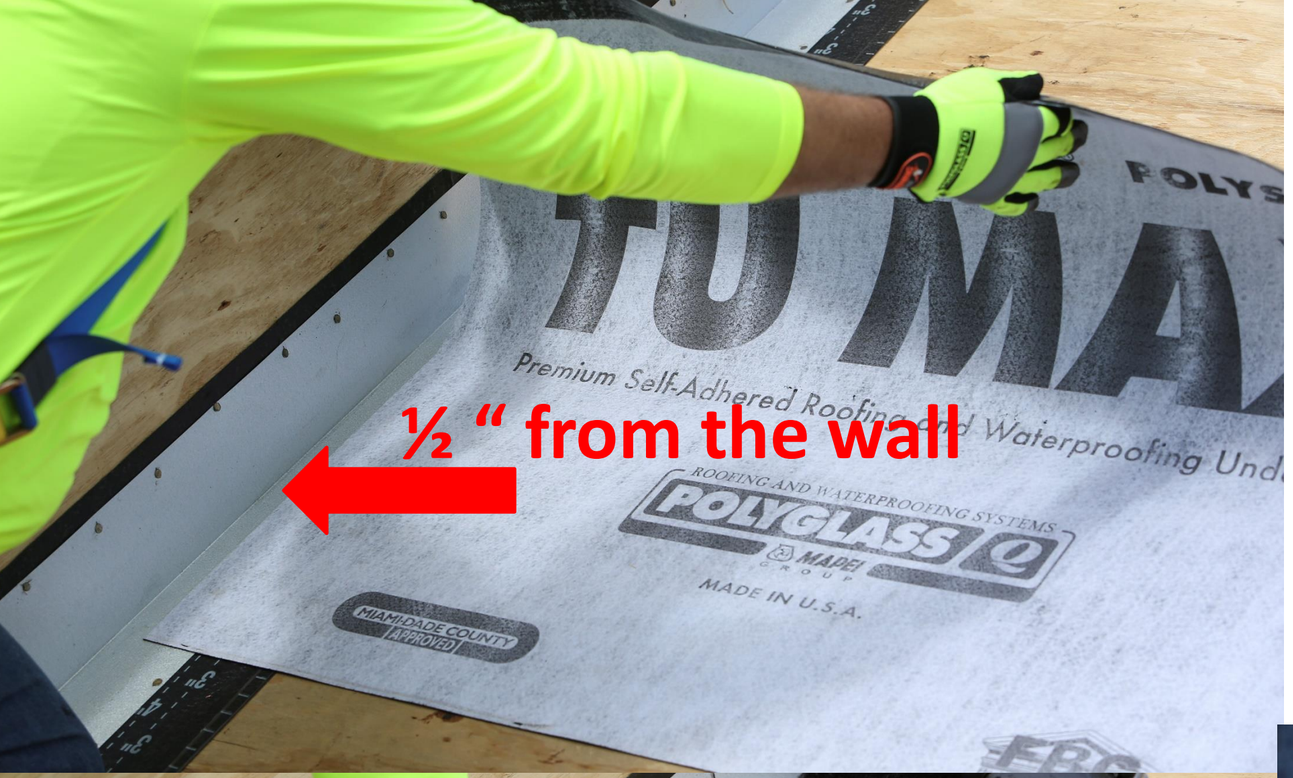


Wall Detail Tips

- Flashing strip size: minimum 1” passed metal flashing on vertical. Minimum 3” passed metal flashing on roof deck.
- Mechanically fasten metal flashing per your local code.

Wall Detail Tips

- Install modified cement ½“ from end of roof to wall transition



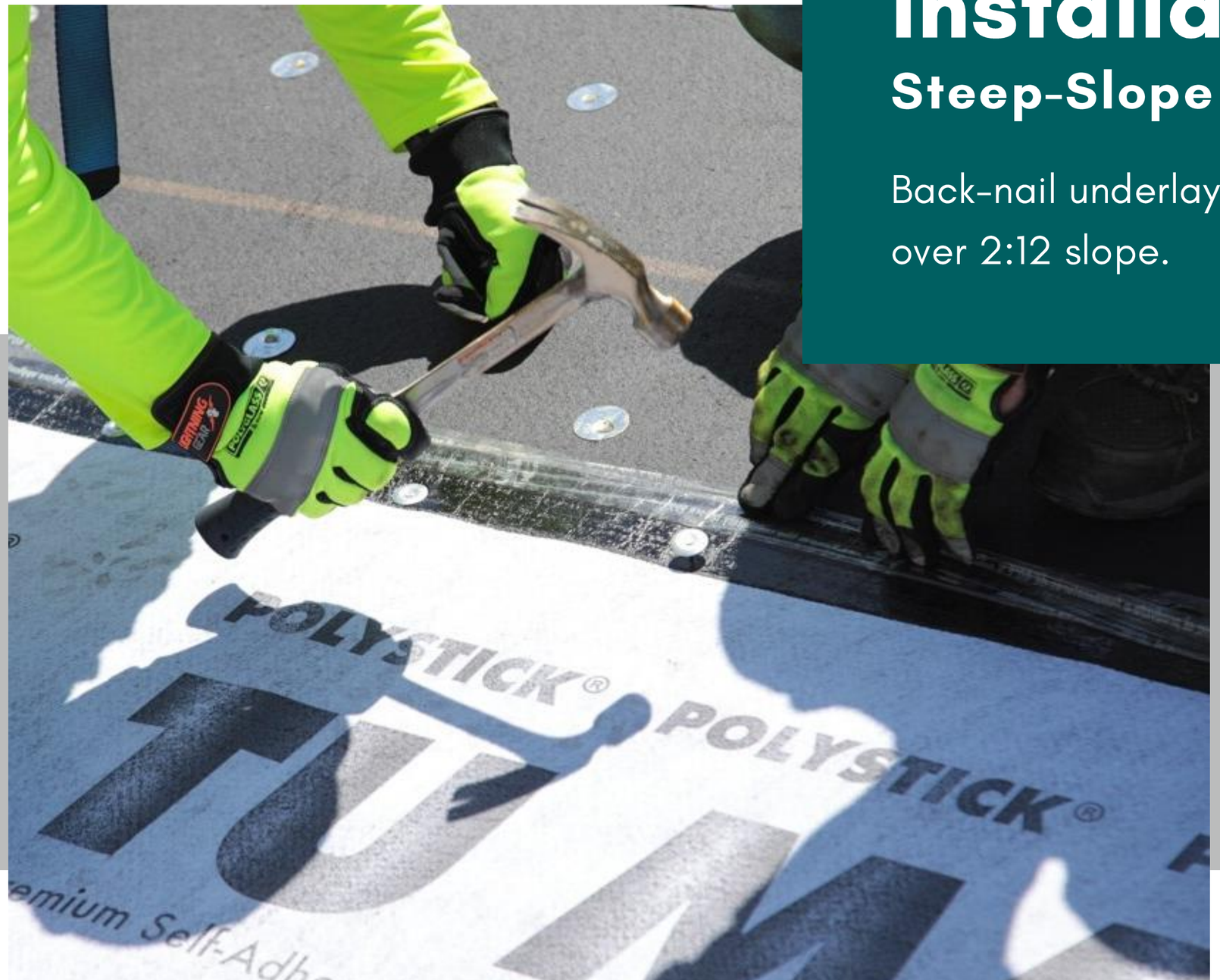
Wall Detail Tips

- Install modified cement where strip-in ply needs to go.
- Underlayment installed minimum 1” passed metal flashing on vertical wall.
- Strip-in ply should be 6” wide and installed ½“ from the wall.

Installation Tips

Steep-Slope

Back-nail underlayment at all lap seams over 2:12 slope.



Roof Loading

Steep-Slope

Know your tile stacking limitations.

Storage

- Stack three high max
- Don't leave rolls laying down
- Keep rolls from getting wet
- If stored outside, keep plastic wrap on membrane

Polyflash® 1C

One Part Flashing Compound

Flashing Challenges

Flashing Solutions

Warranties

Multi-Tier Contractor Program

REGISTERED CONTRACTOR

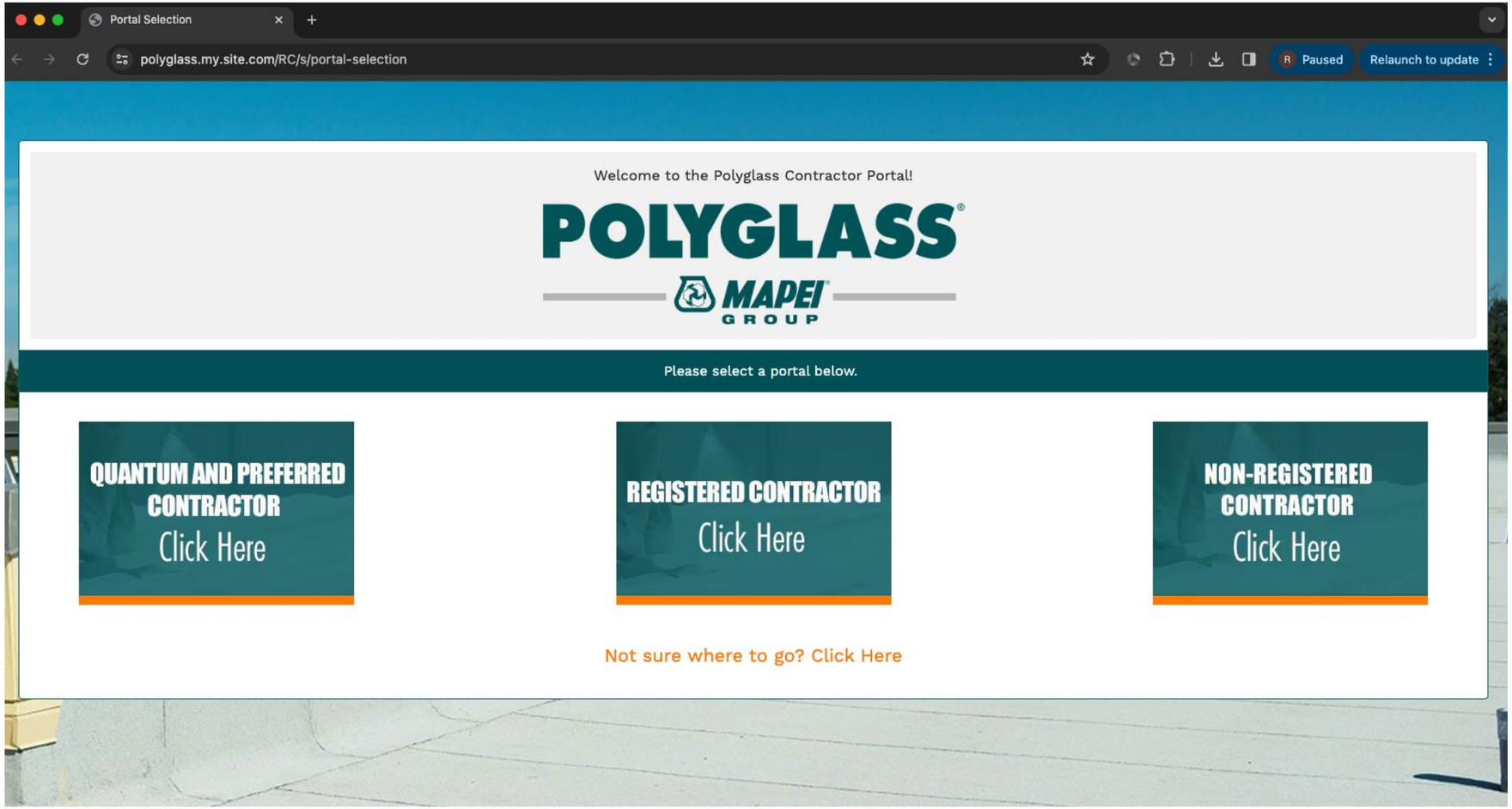
PREFERRED CONTRACTOR

QUANTUM CONTRACTOR

How to become a REGISTERED CONTRACTOR

1. Sales Rep. provides application with Certificate of Insurance sample to contractor
2. Contractor submits signed/completed paperwork
   - Applications must have a phone # on them
   - Email address helps
3. Warranty Dept. checks references/qualifies applicant
   - Written references fast tracks process
   - Providing competitor certificates fast tracks process
4. Technical Services Manager approves application
5. Technical Services Assistant enters Registered Contractor in Salesforce
6. Warranty Dept. issues to contractor:
   - Registered Contractor Certificate with their #
   - Welcome Letter
   - Warranty Procedures
   - Online Contractor Portal Warranty Instruction

*Preferred Contractors must first become Registered



How to Access Contractor Portal

Click on the appropriate portal

Warranty Types

REGISTERED CONTRACTOR

Material Only (Self-Executing) & Printable Warranty

Limited material only warranty, prorated.

Labor & Material NDL Warranty

Polyglass warrants against manufacturing defects that result in leakage and shall exercise the option to repair or replace.

*Must be a Registered Contractor or greater to gain access to Labor & Material warranty offering

Self-Executing Warranties

(Accessible to everyone)

- **Polystick Steep-Slope Warranties**
  - 10 Year - Polystick® Material Warranty
  - 30 Year - Print Certificate for Polystick®

Polystick® Labor & Materials Warranties

(Steep-Slope)

REGISTERED CONTRACTOR

Manufacturing Defects:

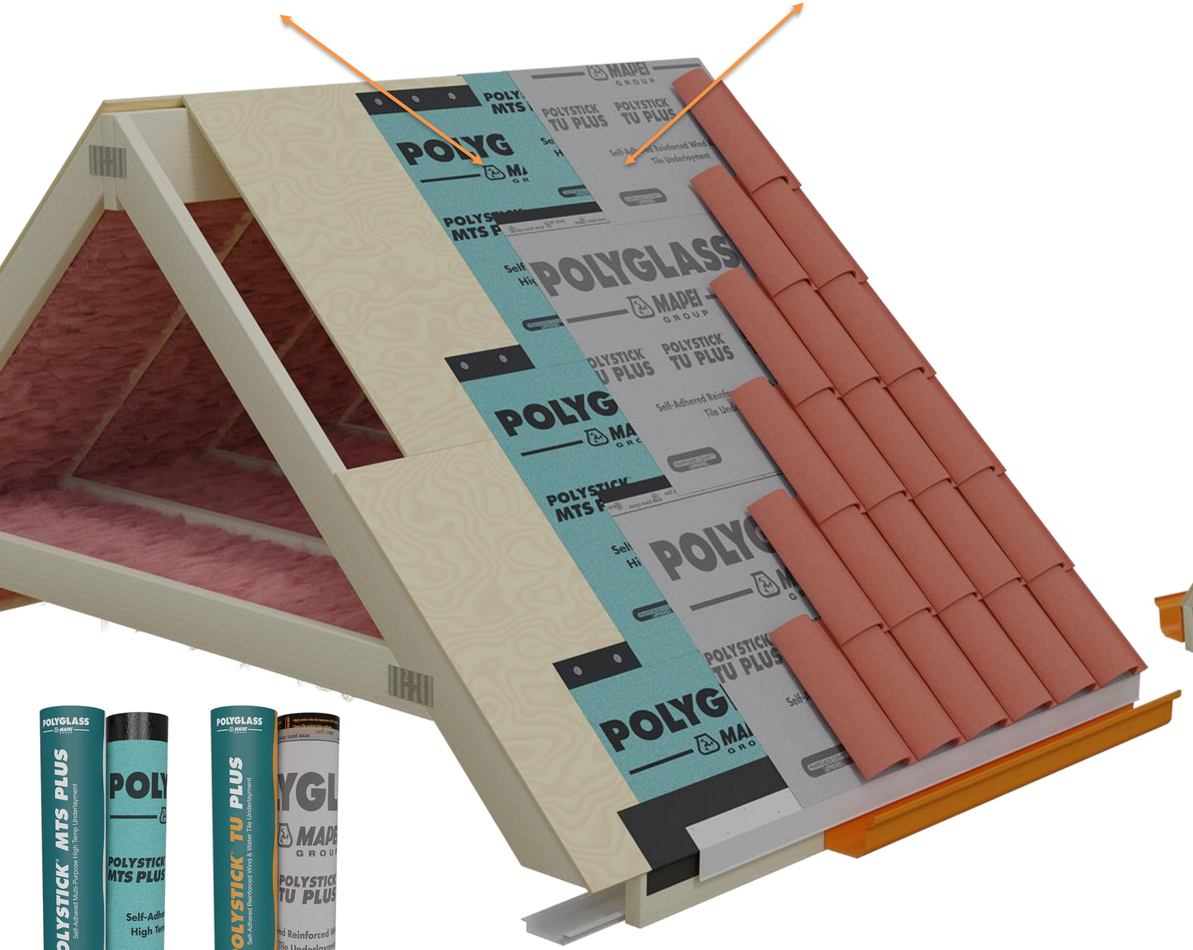
- **Terms of Warranties**
  - 10 Year
    - Polystick® IR-Xe (also available to all Polystick® Underlayments)
      - Prorated at first year
  - 20 Year
    - Polystick® TU Plus, TU Max, MTS Plus, XFR
      - Prorates at 11th year
  - 30 Year
    - Polystick® TU Plus, TU Max, TU P, MTS Plus, XFR
      - Prorates at 11th year
    - Two(2) ply system of MTS Plus or XFR as a base layer, followed by either Polystick® TU Plus, TU MAX, MTS Plus, XFR, or Polyflex® SA P
      - Non-prorated

30 Year Warranty – (non-prorated)

Polystick® MTS Plus

Polystick® TU Plus

Polystick® XFR



REGISTERED CONTRACTOR

CLUB PREMIO™

Loyalty Rewards Program

- Earn points by purchasing Polyglass products
- Enrollment is easy - takes less than 2 minutes!

www.Club-Premio.com

- Once enrolled, submit invoices to earn points redeemable for:

Travel Packages
Sports, Theater & Concert Tickets
Brand Name Merchandise
Unique Experience Awards
Gift Cards

Steep Slope Roof Systems Summary

New Polyglass approvals in HVHZ

Warranty Offerings and Contractor Programs

Polyglass membranes advantages

Installation tips and details


Any
Questions

Property of

BUILDING ENVELOPE ASSOCIATES

YOUR SOLUTION TO ROOFING, WATERPROOFING AND MORE