TECHNICAL BULLETIN

Technical Bulletin #2012-05

To: All POLYGLASS Users
CC: POLYGLASS Sales & Technical Services
Re: **Guidelines for Suitable Substrates for Direct Application of Self-Adhered Membranes**

In our continued effort to support our customers, Polyglass offers the following guideline for the use of "ADESO" Self-Adhesive membranes which is to include Low-Slope membranes and Steep-Slope underlayment's in an approved substrate for direct application.

Suitable Substrates for Direct SA Membrane Application:

1.1 Thermal Insulation

a. Polyisocyanurate with organic facer or combined organic and fiberglass facer.
   i. Note: Maximum single-layer thickness of 2.5 inches unless a rigid coverboard is utilized above the thermal insulation.
b. Wood fiber meeting ASTM C 209, asphalt-impregnated on all six sides.
c. Asphalt recovery board as submitted to and pre-approved by Polyglass
d. Expanded Polystyrene (EPS), UL Classified or FM Approved. Refer to membrane approvals. Minimum thickness of 2 inches and minimum density of 2 lbs. per cubic foot.
   i. Note: Finished cap sheet must be White or Tan only. Base and cap membranes must be installed on the same day of work.

2.1 Concrete/Gypsum Products (Requires Priming)

a. Structural and Non-Structural cast-in-place concrete.
b. Limited pre-cast concrete applications.
c. CMU, vertical wall applications only.
d. Cast-in-place gypsum, non-nailable density.

3.1 Metals and Metallic Surfaces (Requires Priming)

a. Most ferrous and non-ferrous metals.

4.1 Rigid Coverboards

a. USG Securock Gypsum Fiber Roof Board.
b. Georgia Pacific DensDeck Prime and DensDeck StormX.
   i. Priming is not required but does enhance adhesion.
c. Polyboard E Asphalt Coverboard
d. Polytherm HD High Density Polyisocyanurate Insulation Coverboard
e. Structodeck HD with Primed Red Coating with Polytack primer
f. DEXcell FA Glass Mat Roof Board or 7/16-inch DEXcell Cement Roof Board

5.1 Wood Deck Products

a. APA-rated exterior grade plywood, 15/32 inch or greater.
b. APA-rated exterior grade oriented strand board (OSB). Priming recommended but not required for new OSB.

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Rev 033126

c. APA-rated exterior grade plywood and OSB with underside radiant barrier can create a double vapor barrier in direct-to-deck applications. This configuration has been associated with increased risk of underlayment buckling, trapped moisture, and possible sheathing degradation. Use of a mechanically attached anchor sheet is strongly recommended.
d. Dimensional lumber, including square-edge boards (1x4 or 1x6), wood plank 2⅝ inches, shiplap, and T&G 1x4 or 1x6. Board gaps may not exceed ¼ inch.
e. ZIP System Roof Sheathing.

6.1 Asphaltic Membranes

a. Polyolefin film surfaced membranes such as Elastoflex SA V, Elastobase V, Elastobase P, etc.
b. Polyglass approved anchor sheets such as Polyanchor HV, for use in both Non-HVHZ and HVHZ
c. For concrete or clay roof tile systems, ASTM D 226, Type II Organic Felt is not permitted in Florida and HVHZ areas. For metal, shingle, and slate roof coverings, ASTM D 226, Type II Organic Felt is permitted in both Non-HVHZ and HVHZ areas. Polyanchor HV remains the preferred option. Proper attachment required; refer to applicable product approvals.
d. Oxidized Asphalt, SBS & APP polymer modified asphalt surfaces.

Substrates Non-Suitable for Direct SA Membrane Application:

7.1 Thermal Insulation

a. Perlite based cover boards.
b. Foil Faced Insulation
c. Extruded Polystyrene; fan-fold, board stock (unless otherwise approved by Polyglass)
d. Wood Fiberboard (Exception: Asphalt impregnated 6 six-sided)
e. Fiberous Glass or Mineral Wool (Exception: Roxul MonoBoard Plus if preapproved for project conditions)

8.1 Concrete/Gypsum Products

a. Lightweight Insulating Concrete [LWIC] (nailable)
b. Gypsum (nailable)
c. Duraboard or similar

9.1 Metal/Metallic/Miscellaneous Surfaces

a. Silicone coated surfaces
b. Aluminized Emulsions

10.1 Coverboards

a. DensDeck Roof Board

11.1 Wood Deck Products

a. Treated sheathing and lumber such as PT and FR

12.1 Asphaltic/Non-Asphaltic Membranes

a. Sand or other aggregate surfaced membranes
b. Non-aged oxidized asphalt (smooth BUR flood coat)
c. Synthetic underlayment (unless otherwise approved by Polyglass)

Note 1: Not all substrates noted as suitable may qualify for manufacturer's warranties, or may be subject to certain limitations or exclusions. Non-supported gaps in wood decking such as dimensional lumber, wood plank, shiplap and T&G may adversely affect product performance or result in other undesirable results. When in question an attachment sheet or sheathing type product is recommended.

Note 2: Some substrates may be suitable for limited conditions or project circumstances and should be pre-approved by Polyglass Technical Services.

General Guidelines

1) All surfaces intended to receive self-adhered membranes must be clean, dry and free of dust, oils or other contaminants that could interfere with adhesion. When installing direct to wood sheathing in low-slope applications where the sheathing is not fully supported at all joints with wood blocking, either a bond-breaker tape at the joints or an anchor sheet mechanically attached to the deck should be used.
2) Asphalt primers used for surface preparation should comply with ASTM D41. Polyglass PG100 Primer is recommended for this application. Water-based acrylic primers are also suitable for use with self-adhered membranes, with Polyglass WB3000 recommended as the preferred option.
4) Polytack CA High-Tack Contact Adhesive may be used where enhanced initial tack is required.
5) Polyglass further recommends the use of modified mastics with self-adhered membranes, particularly at lap joints where it becomes a required component of the assembly. PolyPlus 50 or PG 500 are recommended mastics for these applications.

Refer to product data sheets, published requirements or contact Technical Services for questions in regards to primer choice and application for specific conditions.

For more detailed application or warranty inquiries, please contact the Polyglass Technical Services Department at 866-794-9659 or via email at Technical@Polyglass.com.