SECTION 07 52 00

MODIFIED BITUMINOUS SHEET ROOFING

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\*\* NOTE TO SPECIFIER \*\* Polyglass USA, Inc.; Membrane roofing products.  
This section is based on the products of Polyglass USA, Inc., which is located at:  
1111 W. Newport Center Dr.  
Deerfield Beach, FL 33442  
Toll Free Tel: 888-410-1375  
Tel: 954-233-1330  
Fax: 954-418-4453  
Email: [request info (arcat@polyglass.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Polyglass+USA,+Inc.&coid=34869&rep=&fax=954-418-4453&message=RE:%20Spec%20Question%20(07550pol):%20%20&mf=)  
Web: <https://polyglass.us>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos34/arc34869.html) ] for additional information.  
With its origins as a roofing contracting business, Polyglass became a leading manufacturer of modified roofing membranes in Europe in the 1960s and introduced its products and technology to the United States in 1992. Since then, Polyglass has grown to be a leading innovator in the roofing industry.  
As the company continued its growth, it was acquired in 2008 by Mapei, a global manufacturer of adhesives, sealants and chemical products for the building industry. Since the acquisition, Polyglass U.S.A.'s headquarters moved to Deerfield Beach, Florida and the company continues to realize significant product development and company growth.  
Polyglass U.S.A. Inc. does not practice architecture or engineering. This specification is being provided as a guideline as to the general use and application of product contained within this specification. Project or other conditions may be present that could affect the use and/or performance of the provided specification information that is beyond the knowledge or control of Polyglass U.S.A. Inc.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Modified bituminous membrane torch applied (heat welded) roofing.
    2. Modified bituminous membrane hot mopped applied roofing.
    3. Modified bituminous membrane cold adhesive applied roofing.
    4. Modified bituminous membrane Self adhered roofing.
    5. Modified bituminous membrane mechanically attached.
    6. Roof Insulation.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 51 00 - Cast Concrete Decking: Decking and decking substrate preparation.
    2. Section 05 30 00 - Metal Decking: Decking and decking substrate preparation.
    3. Section 06 10 00 - Rough Carpentry.
    4. Section 06 11 00 - Wood Framing.
    5. Section 07 22 13 - Asphaltic Perlite Concrete Deck.
    6. Section 07 62 00 - Sheet Metal Flashing and Trim.
    7. Section 07 71 13 - Manufactured Copings.
    8. Section 07 72 33 - Roof Hatches.
    9. Section 08 62 13 - Domed Unit Skylights.
    10. Section 08 63 13 - Domed Metal-Framed Skylights.
    11. Section 08 45 23 - Fiberglass-Sandwich-Panel Assemblies
    12. Section 08 44 33 - Sloped Glazing Assemblies.
    13. Section 23 05 19 - Meters and Gages for HVAC Piping.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
    2. ASTM D41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
    3. ASTM D312 - Standard Specification for Asphalt used in Roofing.
    4. ASTM D1970 - Specification for Sheet Materials, Self-Adhering Polymer Modified Bituminous, Used as Steep Roofing Underlayment for Ice Dam Protection.
    5. ASTM D6162 - Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
    6. ASTM D6163 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements.
    7. ASTM D6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
    8. ASTM D6222 - Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
    9. ASTM D6223 - Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements.
    10. ASTM D6757 - Standard Specification for Underlayment Felt Containing Inorganic Fibers Used in Steep-Slope Roofing.
    11. ASTM D7897 - Standard Practice for Laboratory Soiling and Weathering of Natural Exposure on Solar Reflectance and Thermal Emittance.
    12. NRCA - The NRCA Roofing and Waterproofing Manual. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.
    13. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.
    14. ANSI-SPRI ES-1 Wind Design Standard for Edge Systems used with Low Slope Roofing Systems.
    15. UL - Fire Resistance Directory.
    16. FM Approvals - Roof Coverings.
    17. FBC - Florida Building Code.
    18. Miami-Dade Building Code Compliance - N.O.A. (Notice of Acceptance)
  1. CODE AND TEST REQUIREMENTS
     1. Perform work in accordance with all federal, state, and local codes.

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs as required as appropriate to code, and the Owner, or Owner's Insurance Underwriter requirements. Insurance underwriters will assess Owner's building for floor and roof assembly types and determine insurance premiums accordingly. Delete paragraphs that are inapplicable.

* + 1. Exterior Fire Test Exposure: Roofing system achieving a UL Class rating for roof slopes indicated on the Contract Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete roof class rating not required.

* + - 1. UL Class A rating.
      2. UL Class B rating.
      3. UL Class C rating.

\*\* NOTE TO SPECIFIER \*\* Keep paragraph if wind calculations are based on ASCE 7. Delete if not required.

* + 1. Windstorm Classification: Roofing system, which will achieve the required uplift resistance as calculated in accordance with the most current revision of ASCE 7 or determined by the Design Professional, local Code Agency, or Authority having Jurisdiction (AHJ).

\*\* NOTE TO SPECIFIER \*\* The following two paragraphs apply if Polyglass Polyfresko highly reflective modified bitumen membrane is specified. Delete if not required.

* + 1. Cool Roof Rating Council (CRRC) Reflectivity/Thermal Emittance: Minimum requirements when tested according to CRRC-1
       1. Initial Solar Reflectance Index (SRI): Not less than 96.
       2. Thermal Emittance: Not less than 0.90.
    2. LEED: Roof system to meet reflectivity and emissivity criteria to qualify for one point under the LEED credit category, Credit 7.2, Sustainable Sites - Heat Island Reduction (Roofs).

\*\* NOTE TO SPECIFIER \*\* The following paragraph applies to roofing applications only. Delete roofing applications not required or delete paragraph if not required.

* + 1. Roof system to be tested in compliance with the following codes and test requirements:
       1. Florida FBC: For use outside Miami-Dade and Broward Counties.
          1. Membrane Systems FL1654.
          2. Roofing Underlayments FL5259.
          3. Roofing Cements and Coatings FL10291.
       2. Miami-Dade County:
          1. Self-Adhered Membrane Systems Over:

Concrete Decks N.O.A.

Lightweight Concrete Decks N.O.A.

Recover Decks N.O.A.

Steel Decks N.O.A.

Wood Decks N.O.A.

* + - * 1. Torch, Mop, and Cold Adhesive Applied Membrane Systems Over:

Concrete Decks N.O.A.

Lightweight Concrete Decks N.O.A.

Recover Decks N.O.A.

Steel Decks N.O.A.

Wood Decks N.O.A.

* + - * 1. Roofing Cements and Coatings: Polyglass Coatings and Mastics N.O.A.
      1. International Code Council Evaluation Service (ICC-ES):
         1. Membrane Systems: ESR-2018.
      2. Underwriters Laboratories: Certification TGFU.R14571.
      3. FM Approvals: FM Listed and Approved.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation instructions.
     3. Shop Drawings: Shop drawings including installation details of roofing, flashing, fastening and insulation, including notation of roof slopes and fastening patterns of insulation and base modified bitumen membrane, prior to job start.
     4. Design Pressure Calculations: Design pressure calculations for the roof area in accordance with ASCE 7 and local Building Code requirements. Include a roof system attachment analysis report, certifying the system's compliance with applicable wind load requirements before Work begins. Report shall be signed and sealed by a Professional Engineer registered in the State of the Project who has provided roof system attachment analysis for not less than 5 consecutive years.
     5. Verification Samples: For each modified bituminous membrane ply product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
     6. Manufacturer's Field Reports: As required.
     7. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
     8. Closeout Submittals: Manufacturer's maintenance instructions including recommendations for periodic checking and adjustment of cable tension and periodic cleaning and maintenance of all railing and infill components.
  2. QUALITY ASSURANCE
     1. Perform Work in accordance with NRCA Roofing and Waterproofing Manual.
     2. Manufacturer Qualifications: Company specializing in manufacturing specified products specified with ten years documented experience.

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs as required. Note that 25 and 30 year warranties are reserved to Polyglass Preferred and Quantum contractors only.

* + 1. Installer Qualifications: Company specializing in performing Work of this section with three years documented experience and approved as a Registered Applicator by the Modified Bituminous Membrane Roofing manufacturer.
    2. Installer Qualifications: Company specializing in performing Work of this section and approved as a Polyglass Preferred or Quantum Contractor by Polyglass USA, Inc.
  1. PRE-INSTALLATION MEETINGS
     1. Convene minimum one week prior to commencing Work of this section.
     2. Review installation procedures and coordination required with related Work.
     3. Inspect and make notes of job conditions prior to installation:
        1. Record minutes of the conference and provide copies to all parties present.
        2. Identify outstanding issues in writing designating the responsible party for follow-up action and the timetable for completion.
        3. Installation of roofing system shall not begin until all outstanding issues are resolved to the satisfaction of the Architect.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Deliver and store products in manufacturer's unopened packaging with labels intact until ready for installation.
     2. Store all roofing materials in a dry place, on pallets or raised platforms, out of direct exposure to the elements until time of application. Store materials at least 4 inches (102 mm) above ground level and covered with "breathable" tarpaulins.
     3. Stored in accordance with the instructions of the manufacturer prior to their application or installation. Store roll goods on end on a clean flat surface. No wet or damaged materials will be used in the application.
     4. Store at room temperature wherever possible, until immediately prior to installing the roll. During winter, store materials in a heated location with a 50 degree F (10 degree C) minimum temperature, removed only as needed for immediate use. Keep materials away from open flame or welding sparks.
     5. Avoid stockpiling of materials on roofs without first obtaining acceptance from the Architect/Engineer.
     6. Adhesive storage shall be between the range of above 40 degree F (4 degree C) and below 80 degree F (27 degree C). Area of storage shall be constructed for flammable storage.
  3. COORDINATION
     1. Coordinate Work with installing associated metal flashings as work of this section proceeds.
  4. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

\*\* NOTE TO SPECIFIER \*\* Select the warranty required from the following paragraphs and delete those not required. Various Polyglass warranties are available. Warranties range from limited materials warranties to limited and full-systems warranties. Additional charges are required for non-prorated, no dollar limit warranties.

* 1. WARRANTY
     1. Limited Roofing Materials Warranty: Upon completion of the Work. Written and signed warranting if a leak develops in the roof during the term of this warranty, due either to defective material, the manufacturer shall provide the Owner, at the Manufacturer's expense, with the material necessary to return the defective area to a watertight condition.

\*\* NOTE TO SPECIFIER \*\* Delete warranty length not required.

* + - 1. Warranty Period: 10 years from date of acceptance.
      2. Warranty Period: 12 years from date of acceptance.
    1. Labor and Materials Warranty: Upon completion of the Work. Written and signed, warranting, if a leak develops in the roof during the term of this warranty, due to defective material, the manufacturer shall provide the Owner, at Manufacturer's expense, with the material necessary to return the defective area to a watertight condition, including labor to install such materials to remedy.

\*\* NOTE TO SPECIFIER \*\* Delete warranty period options not required. Note that 25 year warranties apply to Polyglass Preferred and Quantum contractors only.

* + - 1. Warranty Period: 10 years from date of acceptance.
      2. Warranty Period: 12 years from date of acceptance.
      3. Warranty Period: 15 years from date of acceptance.
      4. Warranty Period: 20 years from date of acceptance.
      5. Warranty Period: 25 years from date of acceptance.
    1. Roofing System Warranty: Upon completion of Work. Written and signed, warranting that, if a leak develops in the roof during the term of this warranty, due either to defective material or defective workmanship by the installing contractor, the manufacturer shall provide the Owner, at Manufacturer's expense, with no dollar limit, the labor and material necessary to return the defective area to a watertight condition.

\*\* NOTE TO SPECIFIER \*\* Delete warranty period options not required. Note that 25 and 30 year warranties apply to Polyglass Preferred and Quantum contractors only.

* + - 1. Warranty Period: 10 years from date of acceptance.
      2. Warranty Period: 12 years from date of acceptance.
      3. Warranty Period: 15 years from date of acceptance.
      4. Warranty Period: 20 years from date of acceptance.
      5. Warranty Period: 25 years from date of acceptance.
      6. Warranty Period: 30 years from date of acceptance.

\*\* NOTE TO SPECIFIER \*\* Contractor warranties are recommended and are becoming more common (as specified by Registered Roof Consultants). Such warranties generally ensure a more vested interest in the integrity of the installation. However, this typically limits the number of contractors qualified and/or willing to bid the project.

* + 1. Contractor is to guarantee all work against defects in materials and workmanship for a period indicated following final acceptance of the Work.
       1. Warranty Period: minimum of 2 years.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Polyglass USA, Inc., which is located at: 1111 W. Newport Center Dr.; Deerfield Beach, FL 33442; Toll Free Tel: 888-410-1375; Tel: 954-233-1330; Fax: 954-418-4453; Email: [request info (arcat@polyglass.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Polyglass+USA,+Inc.&coid=34869&rep=&fax=954-418-4453&message=RE:%20Spec%20Question%20(07550pol):%20%20&mf=); Web: <https://polyglass.us>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Coordinate with Section 07 22 13 as required for the project.

* 1. INSULATION

\*\* NOTE TO SPECIFIER \*\* Delete insulation options if not required.

* + 1. Polyglass Polytherm: Closed-cell polyisocyanurate; polyiso, foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt facers. Polytherm is offered in a variety of thicknesses, providing long-term thermal resistance (LTTR) values from 5.7 to 26.8. Available in 4 by 8 foot (1220 by 2440 mm) and 4 by 4 foot (1220 by 1220 mm) panels. Manufactured in accordance with ASTM C1289, Type II, Class 1, Grade 2 (20 psi), or Grade 3 (25 psi) and CAN/ULC-S704 type 2, Class 3 or Type 3, Class 3.

\*\* NOTE TO SPECIFIER \*\* Insert insulation thickness and thermal resistance required.

* + - 1. Board Thickness: \_\_\_\_\_\_.
      2. Thermal Resistance: \_\_\_\_\_.
    1. Polyglass Tapered Polytherm: Closed-cell polyisocyanurate; polyiso, foam core integrally bonded to non-asphaltic, fiber- reinforced organic felt facers. Tapered Polytherm is offered in a variety of slopes, to achieve positive drainage as well as long-term thermal resistance (LTTR). Available in 4 by 4 foot (1220 by 1220 mm) panels with 1/8 inch (3 mm), 1/4 inch (6 mm) and 1/2 inch (12 mm) per foot slope. Manufactured in accordance with ASTM C1289, Type II, Class 1, Grade 2 (20 psi) 3, or Grade 3 (25 psi) and CAN/ULC-S704 type 2, Class 3 or Type 3, Class 3.

\*\* NOTE TO SPECIFIER \*\* Delete minimum slop required option not required.

* + - 1. Minimum Slope Required: \_\_\_\_ inches per foot (\_\_\_\_ mm per m).
      2. Minimum Slope Required: As indicated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. If required, delete roof cover boards not required.

* 1. ROOF COVER BOARD
     1. Securock Gypsum-Fiber Roof Board: Fiber reinforced gypsum panel available in 4 by 8 ft (1220 by 2440 mm) and 4 by 4 ft (1220 by 1220 mm) panels conforming to ASTM C1278.

\*\* NOTE TO SPECIFIER \*\* Delete board thickness options not required.

* + - 1. Board Thickness: 1/4 inch (6 mm).
      2. Board Thickness: 1/2 inch (12 mm).
      3. Board Thickness: 5/8 inch (16 mm).
    1. DensDeck Prime Roof Board: Enhanced to provide a broader compatibility for adhered, self-adhered, hot-mopped, cold adhesive, and torch-applied modified bitumen membranes conforming to ASTM C1177.

\*\* NOTE TO SPECIFIER \*\* Delete board thickness options not required.

* + - 1. Board Thickness: 1/4 inch (6 mm).
      2. Board Thickness: 1/2 inch (12 mm).
      3. Board Thickness: 5/8 inch (16 mm).
    1. Wood Fiber Board per ASTM C209: Six-sided asphalt impregnated only. Minimum 1/2 inch (12 mm) thickness.
  1. MODIFIED BITUMINOUS ROOFING MEMBRANE

\*\* NOTE TO SPECIFIER \*\* Delete membranes not required for Roof Systems specified. Consult POLYGLASS Technical Services Department for fire rated assembly information. Mechanically Attached Systems require a base sheet or other acceptable fire barrier when seams are welded by open flame equipment. Delete application method options and membrane options not required.

* + 1. Base Sheet:
       1. Application Method: Heat Welded.
       2. Application Method: Hot Mop.
       3. Application Method: Cold Process.
       4. Application Method: Self-Adhered.
       5. Application Method: Mechanical.
       6. APP (Atactic-Polypropylene) Membranes:
          1. Polybond: Grade: Smooth/Sand; ASTM D6222 Type I; Torch; UL/FM Classified. Nom. Thickness: 140 mils (3.5 mm).
          2. Polyflex: Premium; Grade: Smooth/Sand; ASTM D6222 Type I; Torch/Cold Process; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
          3. Polyglass APP Base: Grade: Smooth; ASTM D6509 Type I; Torch/Mechanical; UL Classified. Nom. Thickness: 80 mils (2.0 mm).
          4. Polyglass G2 Base: Grade: Sand; ASTM D4601 Type II; Cold Process/Hot Mop; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
       7. SBS (Syrene-Butadiene-Styrene) Membranes:
          1. Modibase: Grade: Smooth; ASTM D4601; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 60 mils (1.5 mm).
          2. Elastobase: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 80 mils (2.0 mm).
          3. Elastobase P: Grade: Smooth/Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 80 mils (2.0 mm).
          4. Elastoflex S6: Grade: Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
          5. Elastoflex S6 HP: Grade: Sand; ASTM D6164 Type II; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
          6. Elastoflex V 2.2: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 90 mils (2.2 mm).
          7. Elastoflex V: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
          8. Elastoshield TS: Grade: Smooth/Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
          9. Elastovent: Grade: Sand; ASTM D4897 Type II; Mechanical; Nom. Thickness: 130 mils (3.3 mm).
       8. SA (Self-Adhered) Membranes:
          1. APP (Atactic-Polypropylene) Membranes:

Polyflex SA Base: Grade: Mineral; ASTM D1970; Self Adhered; UL/FM Classified. Nom. Thickness: 60 mils (1.5 mm).

* + - * 1. SBS (Syrene-Butadiene-Styrene) Membranes:

Elastoflex SA V: Grade: Smooth; ASTM D6163 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 80 mils (2.0 mm).

Elastoflex SA V Plus: Grade: Smooth; ASTM D6163 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 80 mils (2.0 mm).

* + 1. Interply:

\*\* NOTE TO SPECIFIER \*\* Delete application method options and membrane options not required.

* + - 1. Application Method: Heat Welded.
      2. Application Method: Hot Mop.
      3. Application Method: Cold Process.
      4. Application Method: Self-Adhered.
      5. Application Method: Mechanical.
      6. APP (Atactic-Polypropylene) Membranes:
         1. Polybond: Grade: Smooth/Sand; ASTM D6222 Type I; Torch; UL/FM Classified. Nom. Thickness: 140 mils (3.5 mm).
         2. Polyflex: Premium; Grade: Smooth/Sand; ASTM D6222 Type I; Torch/Cold Process; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
         3. Polyglass APP Base: Grade: Smooth; ASTM D6509 Type I; Torch/Mechanical; UL Classified. Nom. Thickness: 80 mils (2.0 mm).
         4. Polyglass G2 Base: Grade: Sand; ASTM D4601 Type II; Cold Process/Hot Mop; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
      7. SBS (Syrene-Butadiene-Styrene) Membranes:
         1. Modibase: Grade: Smooth; ASTM D4601; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 60 mils (1.5 mm).
         2. Elastobase: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 80 mils (2.0 mm).
         3. Elastobase P: Grade: Smooth/Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 80 mils (2.0 mm).
         4. Elastoflex S6: Grade: Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
         5. Elastoflex S6 HP: Grade: Sand; ASTM D6164 Type II; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
         6. Elastoflex V 2.2: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 90 mils (2.2 mm).
         7. Elastoflex V: Grade: Smooth/Sand; ASTM D6163 Type I; Torch/Cold Process/Hot Mop/Mechanical; UL/FM Classified. Nom. Thickness: 120 mils (3.0 mm).
         8. Elastoshield TS: Grade: Smooth/Sand; ASTM D6164 Type I; Torch/Cold Process/Hot Mop; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
         9. Elastovent: Grade: Sand; ASTM D4897 Type II; Mechanical; Nom. Thickness: 130 mils (3.3 mm).
      8. SA (Self-Adhered) Membranes:
         1. APP (Atactic-Polypropylene) Membranes:

Polyflex SA Base: Grade: Mineral; ASTM D1970; Self Adhered; UL/FM Classified. Nom. Thickness: 60 mils (1.5 mm).

* + - * 1. SBS (Syrene-Butadiene-Styrene) Membranes:

Elastoflex SA V: Grade: Smooth; ASTM D6163 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 80 mils (2.0 mm).

Elastoflex SA V Plus: Grade: Smooth; ASTM D6163 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 80 mils (2.0 mm).

* + 1. Cap Sheet:

\*\* NOTE TO SPECIFIER \*\* Delete application method options and membrane options not required.

* + - 1. Application Method: Heat Welded.
      2. Application Method: Hot Mop.
      3. Application Method: Cold Process.
      4. Application Method: Self-Adhered.
      5. APP (Atactic-Polypropylene) Membranes:
         1. Polybond: Grade: Smooth/Sand; ASTM D6222 Type I; Torch; UL/FM Classified. Nom. Thickness: 140 mils (3.5 mm).
         2. Polybond G: Grade: Granules; ASTM D2222 Type I; Torch; UL/FM Classified; Available in FR. Nom. Thickness: 160 mils (4.0 mm).
         3. Polyflex: Premium; Grade: Smooth/Sand; ASTM D6222 Type I; Torch/Cold Process; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
         4. Polyflex G: Premium; Grade: Granules; ASTM: D2222 Type I; Torch; UL/FM Classified; Available in FR. Nom. Thickness: 180 mils (4.5 mm).
         5. Polyflex G HP: Premium; Grade: Granules; ASTM D2222 Type II; Torch; UL/FM Classified; Available in FR. Nom. Thickness: 180 mils (4.5 mm).
         6. Modibond G FR: Grade: Granules; ASTM D6222 Type I; Torch; UL/FM Classified. Nom. Thickness: 160 mils (4.0 mm).
         7. Polyfresko G: Grade: Highly Reflective Granules; ASTM D2222 Type I; Torch; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 165 mils (4.2 mm).
         8. Polyfresko G HP: Highly Reflective Granules; ASTM D2222 Type II; Torch; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 173 mils (4.4 mm).
      6. SBS (Syrene-Butadiene-Styrene) Membranes:
         1. Elastoflex S6 G: Grade: Granules; ASTM D6164 Type I; Torch/Cold Process/Hot Mop; UL/FM Classified; Available in FR. Nom. Thickness: 160 mils (4.0 mm).
         2. Elastoflex S6 G HP: Grade: Granules; ASTM D6164 Type II; Torch/Cold Process/Hot Mop; UL/FM Classified; Available in FR. Nom. Thickness: 160 mils (4.0 mm).
         3. Elastoflex V G: Grade: Granules; ASTM D6163 Type I; Torch/Cold Process/Hot Mop; UL/FM Classified; Available in FR. Nom. Thickness: 140 mils (3.5 mm).
         4. Elastoshield TS G: Grade: Granules; ASTM D6163 Type I; Torch/Cold Process/Hot Mop; UL/FM Classified; Available in FR. Nom. Thickness: 180 mils (4.5 mm).
         5. Polyfresko G SBS: Grade: Highly Reflective Granules; ASTM D6164 Type I; Torch; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 165 mils (4.2 mm).
         6. Polyfresko G SBS HP: Grade: Highly Reflective Granules; ASTM D6164 Type II; Torch; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 165 mils (4.2 mm).
      7. SA (Self-Adhered) Membranes:
         1. APP (Atactic-Polypropylene) Membranes:

Polyflex SA P: Grade: Granules; ASTM D2222 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 140 mils (3.5 mm).

Polyfresko G SA: Grade: Highly Reflective Granules; ASTM D2222 Type I; Self Adhered; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 140 mils (3.5 mm).

* + - * 1. SBS (Syrene-Butadiene-Styrene) Membranes:

Elastoflex SA P: Grade: Granules; ASTM D6164 Type I; Self Adhered; UL/FM Classified; Available in FR. Nom. Thickness: 140 mils (3.5 mm).

Polyfresko G SBS SA: Grade: Highly Reflective Granules; ASTM: D6164 Type I; Self Adhered; UL/FM Classified; Available in FR; SRI 96. Nom. Thickness: 140 mils (3.5 mm).

\*\* NOTE TO SPECIFIER \*\* Delete color for granulated cap sheet options not required or delete all if granulated cap sheet is not specified.

* + - 1. Color for Granulated Cap Sheet: Buff.
      2. Color for Granulated Cap Sheet: Black.
      3. Color for Granulated Cap Sheet: White.
      4. Color for Granulated Cap Sheet: Highly Reflective White Polyfresko.

\*\* NOTE TO SPECIFIER \*\* Coordinate flashing details and materials with Polyglass "Specifications and Details" manual. Contact the manufacturer for additional information.

* 1. FLASHING MEMBRANE
     1. Metal Flashing Conditions: Minimum 9 inch (229 mm) wide base/interply stripping sheets.
     2. Roof to Wall Flashings: Minimum of 1 ply of base/interply as reinforcement and cap sheet for all flashing systems.
  2. LIQUID APPLIED FLASHING
     1. Polyflash 1C: one-component, moisture-cure silane modified polyurethane, white flashing compound
        1. Must be installed in 3-course fashion using PolyBrite Reinforcing Polyester Fabric.

\*\* NOTE TO SPECIFIER \*\* Select surface coatings if required for the roof system specified. Contact the manufacturer for additional information. Delete article if not required.

* 1. SURFACE COATINGS

\*\* NOTE TO SPECIFIER \*\* Where required, and as specified, POLYGLAS approved coatings may be applied to POLYGLASS Roofing systems in strict conformance with the specific manufacturer's recommended procedures. Coatings may be required to meet necessary code approvals. Please consult the POLYGLASS Technical Services Department for fire rated assembly information. Delete surface coating options not required.

* + 1. Polyglass PG600: non-fibered aluminum reflective roof coating designed to protect a variety of asphalt-based roofs and most metal roof substrates.
    2. Polyglass PG650: fibered aluminum reflective roof coating designed to protect a variety of asphalt-based roofs.
    3. Polyplus 60 Premium Non-Fibered Aluminum Roof Coating. Premium quality reflective coating designed to protect a variety of asphalt-based roofs and most metal roof substrates.
    4. Polybrite 70 Premium Grade Elastomeric Roof Coating. 100 percent acrylic, premium grade water-based elastomeric coating available in white or as tinted, which cures to form a seamless membrane when applied over the entire roof area.
    5. Polyplus 65 Premium Fibered Aluminum Roof Coating. Premium fibered aluminum roof coating is a premium quality reflective coating designed to protect a variety of asphalt-based roofs.
    6. PG 700 White Elastomeric Roof Coating. High quality water-based elastomeric coating available in white or as tinted, which cures to form a seamless membrane when applied over the entire roof area.
    7. Polyglass Polybrite 95 Silicone Roof Coating. Ready-to-use, single component, solvent borne, moisture cure silicone roof coating available in white or as tinted, which cures to form a seamless membrane when applied over the entire roof area.
    8. Polyglass Polybrite 90 High Solids Silicone Roof Coating. Premium grade high solids, single component, moisture cure, fluid applied silicone coating available in white or as tinted, which cures to form a seamless membrane when applied over the entire roof area.
  1. FASTENERS
     1. Fasteners and Plates: Provide FM Approved fasteners and plates and other devices as required to suit the system specified.
     2. Wood: Roofing nails of galvanized or stainless steel, of length to penetrate the wood by at least 3/4 inch (19 mm) on flashings and parapet walls.
     3. Masonry: Nail-in expansion type device with zinc body, plated steel nail, and mushroom head or approved equal and of length to embed into the masonry a minimum of 1 inch (25 mm).
     4. Insulation: Mechanical fasteners for securing of insulation to decking shall be approved by the insulation manufacturer for the system specified and shall be FM Approved and be in compliance with Appendix "E" of FM 4470 for corrosion resistance.
        1. Use the same brand fastener throughout the work.
        2. Provide the number of fasteners and layout as recommended by the manufacturer and per FM Approvals.
        3. Determine length of fastener by the thickness of the decking and any fill and the thickness of the insulation. Fasteners shall be of sufficient length to achieve a minimum of 1 inch (25 mm) penetration.
     5. Pre-Assembled Fastener/Plate Combination: Case hardened carbon steel and use specific head, shank and thread diameters, point types and head styles meeting building code and FM approvals for corrosion and simulated wind uplift criteria requirements.
        1. Fasteners are designed for the attachment of insulation and membrane to steel (18-24 gauge), wood, and structural concrete.
        2. Provide to meet FM requirements, fastener shall penetrate the steel deck 3/4 inch (19 mm). Minimum penetration is 1 inch (25 mm) in wood, 3/4 inch (19 mm) through wood that is less than 3/4 inch (19 mm) thick and 1-1/4 inches (32 mm) in concrete.
  2. PRIMER
     1. Asphalt Primer: Polyglass PG100 Asphalt Primer conforming to ASTM D41.
        1. Applied on all dissimilar materials except insulation.
        2. General purpose penetrating asphalt primer used to promote adhesion prior to the application of hot-mopped, cold-applied, and self-adhesive membrane systems as well as roof cements, mastics, and asphalt-based adhesives.
     2. Water-Based Acrylic Primer: Polyglass WB-3000 Water-Based Acrylic Primer:
        1. Low-VOC water-based acrylic primer that enhances the adhesion of self-adhered roof membranes to a variety of porous and non-porous substrates.
  3. ASPHALT
     1. Certified in full compliance with requirements of Type III or IV asphalt listed in Table 1, ASTM D312. Each container, or bulk, shipping ticket shall indicate the equiviscous temperature (EVT), the finished blowing temperature (FBT), and the flash point.
  4. MISCELLANEOUS
     1. Adhesive/Sealant:
        1. Polyglass PG 500 Modified Cement. Meets or exceeds the requirements of ASTM D4586 Asphalt Roof Cement Type I.
        2. Polyglass PolyPlus 50 Premium MB Flashing Cement. Meets or exceeds the requirements of ASTM D4586 Asphalt Roof Cement Type I.
        3. Polyglass PolyPlus 35 or PG 350 Modified Adhesive. Meets or exceeds the requirements of ASTM D3019 Type III Lap Adhesion.
     2. Insulation Adhesive:
        1. Approved low-rise foam adhesive.

\*\* NOTE TO SPECIFIER \*\* Consult POLYGLASS Technical Services for current information regarding the acceptability of insulation for specific roofing membranes types or manufacturers. Acceptable insulations types include: perlite, polyisocyanurate (ISO), ISO/perlite composite, expanded polystyrene (EPS)/perlite composite, wood fiber, wood Fiber/ISO composite, glass fiber and cellular glass ("Foam Glass"). Contact POLYGLASS for insulations not listed here.

* + 1. Roofing Insulation: As specified in Section 07 22 13.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. Inspect and approve the deck condition, slopes and fastener backing if applicable, parapet walls, expansion joints, roof drains, stack vents, vent outlets, nailers and surfaces and elements.
      3. Verify that work penetrating the roof deck, or which may otherwise affect the roofing, has been properly completed.
      4. If substrate preparation and other conditions are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

\*\* NOTE TO SPECIFIER \*\* The Architect must verify the structural capability and integrity of the roof deck system and for the proper design relationship among other building components for compatibility with the roof system specified and with the applicable code. All deck surfaces shall be constructed in a manner which permits a positive slope to drain. A minimum roof slope of 1/4 inch (6 mm) is recommended to maximize long-term performance of the roof system. Drains shall be of sufficient number and size, and located so as to provide satisfactory and rapid drainage of the entire roof surface within 24 to 48 hours of precipitation.

* 1. SUBSTRATE/PREPARATION
     1. General: Clean surfaces thoroughly prior to installation.
        1. Prepare surfaces using methods recommended by manufacturer for achieving the best result for the substrate under the project conditions.
        2. Fill substrate surface voids that are greater than 1/4 inch (6 mm) wide with an acceptable fill material.
        3. Roof surface to receive roofing system to be smooth, clean, free from loose gravel, dirt and debris, dry and structurally sound.
        4. Wherever necessary, surfaces to receive roofing materials are to be power broomed and vacuumed to remove debris and loose matter prior to starting work.
        5. Do not apply roofing during inclement weather. Do not apply roofing membrane to damp, frozen, dirty, or dusty surfaces.

\*\* NOTE TO SPECIFIER \*\* Verify pull-out capability by applicable code and modify the following if required. If in doubt, contact the manufacturer's Technical Services Department.

* + - 1. Fasteners and plates for fastening components mechanically to the substrate shall provide a minimum pull-out capacity of 300 lb. (1334 N) per fastener. Base or ply sheets attached with cap nails require a minimum pullout capacity of 40 lb. (178 N) per nail.
      2. Prime decks where required, in accordance with requirements and recommendations of the primer and deck manufacturer.

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs as required. Include the surfaces to which the roofing will be applied and delete those not required. Contact the manufacturer's Technical Services Department for surfaces not listed.

* + 1. Steel Deck: Installed as specified in Section 05 30 00 - Metal Decking. Comply with current requirements of FM Approvals in constructing and attaching the decking.
       1. Minimum 22 gauge cold-formed steel decking with G-90 galvanized or minimum finish coat of primer paint on both sides. Galvanized steel decking where appropriate to project design criteria is recommended.
       2. Deck panels to be anchored to supporting members by welding or mechanically fastening. Requirements as established by Factory Mutual for gauge and span should be in compliance with Factory Mutual LPDS 1-28 and 1-29.
       3. Decks to be clean, free of moisture, and debris as well as free of corrosion.
       4. Damaged or deflected panels as well as deteriorated portions must be removed and replaced.
    2. Structural Concrete:
       1. Decks: Minimum Compressive Strength: 2,500 psi (17237 kPa). Minimum Thickness: 4 inches (102 mm).
       2. Deck Surface: Smooth; free of ridges, sharp edges, and irregular surfaces.
       3. Underside of Concrete Deck: Must remain unobstructed allowing for escape of moisture. This includes applications of items such as paint, spray fireproofing etc.
       4. Concrete decks typically require a minimum 28 day cure time. Evaluation of determination of moisture content should be in accordance to ASTM D4263; Plastic Sheet Method.
       5. Field uplift resistance for adhesive applications is recommended as per ANSI/SPRI 1A-1.
       6. Primers applied to deck, when applied, must be dry prior to application of adhesives.
       7. Cracks greater than 1/8 inch (3 mm) to be filled or treated as per the direction of the deck manufacturer
    3. Cellular Lightweight Insulating Concrete:
       1. Must have a minimum 200 psi (1379 kPa) compressive strength as well provide a minimum withdrawal resistance of 40 lbs. (178 N) as an average pull value.
       2. Deck installation shall comply with the deck manufacturer.
       3. Installation shall not proceed during inclement weather including both precipitation as well as freezing temperatures. Any and all frozen deck sections shall be completely removed and replaced.
       4. All measures should be taken to ensure that there is no entrapment of moisture within the deck prior to roofing applications.
    4. Wood Plank Boards:
       1. Thickness: Nominal 1 inch (25 mm). Width: 4 to 6 inches (102 to 152 mm).
       2. Boards to have a bearing on rafters at each end and must be securely fastened.
       3. Kiln-dried and preferably a tongue-and-groove style to eliminate shrinkage or warping of planks.
       4. Knotholes/cracks exceeding 1/4 inch (6 mm) must be covered with secured sheet metal.
    5. Plywood:
       1. Thickness: Minimum of 15/32 inch (12 mm) with a minimum 4-ply conforming with C-D Exposure 1 grade.
       2. Joist Spacing: Maximum 24 inch (610 mm) o.c. or less using minimum 1/8 to 1/4 inch (3 to 6 mm) spacing between panels.
    6. Oriented Strand Board (OSB): PS 2-10, Exposure 1, Structural 1.
       1. Thickness: Minimum 7/16 inches (11 mm) in thickness.
       2. Sheathing to be installed with all sides bearing on and secured to joists and cross blocking in accordance with APA (Engineered Wood Association).
    7. Cementitious Wood Fiber:
       1. Application of cementitious wood fiber decking to be in accordance with decking manufacturer.
       2. Thickness: Minimum of 2 inches (51 mm).
       3. Panels must be protected from inclement weather when stored as well as during application of the panels.
       4. Joints between panels in excess of 1/4 inch (6 mm) as well as offsets in adjacent panels exceeding 1/8 inch (3 mm) must be grouted as per the panel manufacturer's instruction.
    8. Gypsum:
       1. Gypsum Decks Thickness: Minimum 2 inches (51 mm).
       2. Panels must be protected from inclement weather when stored as well as during application of the panels.
       3. Joints between panels in excess of 1/4 inch (6 mm) as well as offsets in adjacent panels exceeding 1/8 inch (3 mm) must be grouted as per the panel manufacturer's instruction.
    9. Poured Reinforced Concrete:
       1. Smooth, dry, clean and free of ice/ frost, projections and depressions.
       2. Fully cured and surface to be broom cleaned and free of release / curing agents prior to commencement of work.
       3. Prepared Concrete Surfaces: Primed with Polyglass PG 100 Fast-Drying Asphalt Primer per ASTM Type D41 at rate of 1 gal per 100 sq ft (0.41 L per sq m).
       4. All primed areas to be fully dried before proceeding with application of roof system.
    10. Other Deck Types: Contact Polyglass for recommendations in any situation which involves other deck types, new or unusual deck construction.

\*\* NOTE TO SPECIFIER \*\* Edit the following two paragraphs as required. Contact Polyglass for recommendations in any situation, which involves other deck types for new or unusual deck construction.

* + 1. Re-Roofing Applications:
       1. Remove existing roof flashings from curbs and parapet walls down to the surface of the roof. Remove existing flashings at roof drains and roof penetrations.
       2. Remove wet, deteriorated, blistered or delaminated roofing membrane or insulation and fill in any low spots occurring as a result of removal work to create a smooth, even surface for application of new roof membranes.
       3. Install new wood nailers as necessary to accommodate insulation/recovery board or new nailing patterns.
       4. When mechanically attached, the fastening pattern for the insulation/recovery board shall be as recommended by the specific product manufacturer.
       5. Re-roofing over coal tar pitch requires a mechanically attached recovery board or insulation and a base sheet prior to the application of Polyglass roofing system.
       6. Existing roof surfaces shall be primed as necessary with asphalt primer meeting ASTM D41 and allowed to dry prior to installing the Polyglass roofing system.
    2. Insulation:
       1. All joints between layers should be staggered when multiple layers of insulation are installed. Insulation greater than 2.5 inches (64 mm) to be installed in multiple layers.
       2. Insulation to be kept dry at all times. Install only as much insulation as can be covered with completed roofing membrane before end of the day's work or prior to onset of inclement weather.
       3. Edges must butt tightly and cuts must fit neatly against adjoining surfaces providing a smooth overall surface. Fill gaps greater than 1/4 inch (6 mm) with insulation.
       4. Install tapered insulation around roof drains and penetrations to provide adequate slope for proper drainage.
       5. Mechanically attached insulation to be fastened in accordance with FM Approvals requirements for applicable geographic zone with required number and type of fasteners and plates.
          1. Where Polyglass requirements are more stringent than FM Approvals or third party manufacturers, follow Polyglass requirements unless otherwise required by applicable Code or Approval agency.
       6. When asphalt or cold adhesive attachment is specified, the proposed insulation shall be compatible with the roof substrate, the proposed bitumen and the requirements of the specific Polyglass membrane.
       7. Hot Asphalt Application:
          1. Maximum 4 by 4 foot (1220 x 1220 mm) insulation boards to be attached with hot asphalt.
          2. Asphalt for insulation attachment to meet ASTM D312 Type III or IV criteria, as dictated by roof slope or other design conditions.
          3. Expanded polystyrene (EPS) materials must not be installed with hot bitumen products.
  1. INSTALLATION
     1. Install modified bitumen membranes and flashings in accordance with manufacturer's instructions and with the recommendations provided by the National Roofing Contractors Association's Roofing and Waterproofing Manual, the Asphalt Roofing Manufacturers Association, and applicable codes.
     2. General: Do not installing modified bitumen membranes at temperatures lower than 40 to 45 degrees F (4 to 7 degrees C) wherever practicable. Where work is unavoidable at such temperatures the following precautions be taken:
        1. Take extra care during cold weather installation at ambient temperatures of 40 to 45 degrees F (4 to 7 degrees C) or below and when ambient temperatures are affected by wind or humidity, to ensure adequate bonding is achieved between the surfaces to be joined. This applies to both material seam welds and adhesion of the applied product to the appropriately prepared substrate as the substrate can be affected by such temperature constraints as well.
        2. In addition, unrolling of cold materials, under very low ambient conditions must be avoided to prevent the likelihood of unnecessary stress cracking. Rolls must be at least 40 degrees F (4 degrees C) at the time of application. Should the membrane roll become stiff or difficult to install, it should be replaced with a new roll from the heated storage area.
     3. Commence installation of the roofing system at the lowest point of the roof (or roof area), working up the slope toward the highest point. Lap sheets shingle fashion so as to constantly shed water.
     4. Base and Ply Sheet Installation:
        1. Install in a manner approved for the specific product, e.g. fully adhered as self-adhered or with asphalt adhesive, torch applied or mechanically attached.
        2. Base or Inter-ply side laps are to be 3 inch (76 mm) minimum and usually delineated by a "lay line" for mopped, torch or mechanically attached application. End laps are typically 6 inches (152 mm) in all cases.

\*\* NOTE TO SPECIFIER \*\* Edit the following three paragraphs as required to include the installation type required for the roofing materials specified.

* + 1. Self-Adhered Application: Base or ply sheet shall be installed per Polyglass specifications and installation guidelines appropriate for the specific substrate type and thickness.
    2. Torch Application: The use of shielded "Dragon-wagons", or moveable, flame-resistant wind shields are recommended to keep all surfaces and materials at a suitably warm temperature during torch application.
    3. Mop Application: Asphalt handling equipment should be insulated in order to minimize the drop in asphalt temperature.
       1. Asphalt must be at least 400 degrees F (204 degrees C) with a target temperature of 425 degrees F (218 degrees C) or 20 degrees F (11 degrees C) above the EVT (equiviscous temperature), whichever is higher, at the point of application.
       2. If minimum asphalt temperature of 400 degrees F (204 degrees C) cannot be maintained at the point of application, work should be discontinued.
       3. Do not overheat asphalt to compensate for cold weather conditions.
       4. Mopping should not progress more than 4 feet in front of the roll at any time.
    4. Cold Adhesive Application: Install base, ply and cap sheet with Polyglass Polyplus 35 or PG 350 Modified Bitumen Adhesive in accordance with Polyglass specifications and installation guidelines.
    5. Fibrous Cant Strips: Provide non-combustible perlite or glass fiber cant strips at all wall/curb detail treatments where angle changes are greater than 45 degrees. Cant may be set in approved cold adhesives, hot asphalt or mechanically attached with approved plates and fasteners.
    6. Wood Blocking, Nailers and Cant Strips: Provide wood blocking, nailers and cant strips as specified in Section 06 11 00 - Wood Framing.
       1. Provide nailers at all roof perimeters and penetrations for fastening membrane flashings and sheet metal components.
       2. Wood nailers should match the height of any insulation, providing a smooth and even transition between flashing and insulation areas.
       3. Nailer lengths should be spaced with a minimum 1/8 inch (3 mm) gap for expansion and contraction between each length or change of direction.
       4. Nailers and flashings should be fastened in accordance with Factory Mutual "Loss Prevention Data Sheet 1-49, Perimeter Flashing" and be designed to be capable of resisting a minimum force of 200 lbs/lineal foot (298 kg per m) in any direction.
    7. Metal Work: Provide metal flashings, counter flashings, parapet coping caps and thru-wall flashings as specified in Section 07 62 00 - Sheet Metal Flashing and Trim or Section 07 71 13 - Manufactured Copings. Install in accordance with the SMACNA "Architectural Sheet Metal Manual" or the NRCA Roofing Waterproofing manual.
    8. Termination Bar: Metal termination bar or approved top edge securement at the terminus of all flashing sheets at walls and curbs. Fasten the bar a minimum of 8 inches (203 mm) o/c to achieve constant compression. Provide suitable, sealant at the top edge if required.

\*\* NOTE TO SPECIFIER \*\* Coordinate flashing details with Polyglass "Specifications and Details" manual. Contact the manufacturer for additional information.

* + 1. Flashing: Use Polyglass flashing sheets and minimum 6 inch (152 mm) wide Polyglass stripping sheets. Install stripping sheet with a minimum of 3 inches (76 mm) in both horizontal and vertical surfaces. Install flashing sheets with a minimum of 6 inches (152 mm) on horizontal surface and extended a minimum of 12 inches (305 mm) above finished roof surface.
       1. Install flashing sheets by the same application method used for the roof membranes. In hot mop applications the flashing sheets may be installed by heat weld application provided the proper flashing materials are utilized.
       2. Heat and scrape granules when welding or adhering at cut areas and seams to granular surfaces at all flashings.
       3. Secure the top edge of the flashing sheet using a termination bar only when the wall surface above is waterproofed, or nailed 4 inches (102 mm) on center and covered with an acceptable counter flashing.
       4. Items related to re-roofing operations such as sheet metal gravel stops, roof vents, and similar items shall be incorporated into the new roof system in accordance with the recommendations described in the current issue of the POLYGLASS "Specifications and Details" manual.
    2. Roof Walkways: Walkways shall consist of an additional layer of similar Polyglass membrane of contrasting color granule surface. Provide walkways in areas indicated on the Drawings.
    3. Surface Coatings: Apply roof coatings in strict conformance with the specific manufacturer's recommended procedures.
    4. Provide any corrections to bring the roofing installation into conformance with Polyglass USA, Inc. requirements.

\*\*NOTE TO SPECIFIER\*\* Include the following Field Quality Control paragraphs if a roofing systems warranty is required for the project.

* 1. FIELD QUALITY CONTROL
     1. Inspection: Manufacturer shall conduct field observations as deemed necessary by Polyglass for projects requiring Polyglass Roofing Systems Warranty. The number and frequency of field observations shall be as required by Polyglass USA, Inc. Technical Services Department.
     2. Contractor shall correct any deficiencies observed by Polyglass Technical Services to bring the roofing installation into specification conformance with Polyglass USA, Inc. warranty requirements.
  2. CLEANING
     1. Clean-up and remove daily from the site all wrappings, empty containers, paper, loose particles and other debris resulting from these operations.
     2. Remove asphalt markings from finished surfaces.
     3. Repair or replace defaced or disfigured finishes caused by Work of this section.
  3. PROTECTION
     1. Provide traffic ways, erect barriers, fences, guards, rails, enclosures, chutes and the like to protect personnel, roofs and structures, vehicles and utilities.
     2. Protect exposed surfaces of finished walls with tarps to prevent damage.
     3. Plywood for traffic ways required for material movement over existing roofs shall be not less than 5/8 inch (16 mm) thick.
     4. In addition to the plywood listed above, an underlayment of minimum 1/2 inch (13 mm) recover board is required on new roofing.
     5. Special permission shall be obtained from the Manufacturer before any traffic shall be permitted over new roofing.

END OF SECTION