SECTION 07 40 00

ROOFING AND SIDING PANELS - QUARRIX FURRING STRIPS AND PROTECT DRAIN MAT

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\*\* NOTE TO SPECIFIER \*\* Quarrix Building Products; specialty roofing products.  
This section is based on the products of Quarrix Building Products, which is located at:705 Pennsylvania Ave. S.Minneapolis, MN 55426Toll Free Tel: 800-438-2920Tel: 763-540-9700Fax: 763-540-9709Email: [request info (marketing@quarrix.com)](https://arcat.com/rfi?action=email&company=Quarrix%252BBuilding%252BProducts&message=RE%253A%2520Spec%2520Question%2520(07400qrx)%253A%2520&coid=48632&spec=07400qrx&rep=&fax=763-540-9709)  
Web: <http://www.quarrix.com>   
 [ [Click Here](https://arcat.com/company/quarrix-building-products-48632) ] for additional information.  
At Quarrix, we're revolutionizing the way people roof. Nearly 30 years ago, we paved the way in the world of building materials with innovations in attic ventilation with our line of ridge ventilation products. Since then, we've expanded our product line to include innovative solutions for the entire roof. In the 1990's, we began manufacturing composite tile - products that have been the choice of customers around the world for more than two decades for its beauty and durability. Innovation is the hallmark of Quarrix, from composite roofing to soffit vents to pipe flashings (and nearly everything in between), our complete product lineup allows architects, contractors, and homeowners to achieve a beautiful roof that is authentically Quarrix.  
Quarrix Promise  
At Quarrix, our products are made in the USA. Quarrix products are tested, certified and proven to perform under extreme elements and the test of time. A brand you can trust and backed by nearly 100 years of innovation through LDI, Inc. Our promise is to deliver exceptional product performance and customer service to you every time.

1. GENERAL
   1. SECTION INCLUDES
      1. Quarrix ProTect Furring Strips and Drain Mat for use with siding systems.
   2. RELATED SECTIONS

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

* + 1. Section 06 10 00 - Rough Carpentry.
    2. Section 07 46 16 - Aluminum Siding.
  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 International (ASTM):
       1. ASTM C834 - Standard Specification for Latex Sealants.
       2. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
       3. ASTM D635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
       4. ASTM D648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
       5. ASTM D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
       6. ASTM D1929 - Standard Test Method for Determining Ignition Temperature of Plastics.
       7. ASTM D2843 - Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
       8. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
       9. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
       10. ASTM E2925 - Standard Specification for Manufactured Polymeric Drainage and Ventilation Materials. Used to Provide a Rainscreen Function
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: For each finish product specified, two full size samples representing actual product, color, and patterns.
    2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
    3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
        1. Store products in manufacturer's unopened packaging until ready for installation.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
        1. Maintain dry storage area for products of this section until installation of products.
  3. 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.
  4. WARRANTY
     1. Manufacturer's limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Quarrix Building Products, which is located at:705 Pennsylvania Ave. S.Minneapolis, MN 55426Toll Free Tel: 800-438-2920Tel: 763-540-9700Fax: 763-540-9709Email: [request info (marketing@quarrix.com)](https://arcat.com/rfi?action=email&company=Quarrix%252BBuilding%252BProducts&message=RE%253A%2520Spec%2520Question%2520(07400qrx)%253A%2520&coid=48632&spec=07400qrx&rep=&fax=763-540-9709);Web: <http://www.quarrix.com>

\*\* 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.
  1. PROTECT FURRING STRIP ACCESSORIES FOR SIDING
     1. Basis of Design: Quarrix ProTect Furring Strips as manufactured by Quarrix Building Products.
        1. Features:
           1. High Density Polyethylene (HDPE) corrugated plastic.
           2. Promotes airflow and drainage behind cladding.
           3. Crush resistant and resists moisture, mold, mildew.
           4. Applicable use for wood, fiber-cement, vinyl, stucco, brick and stone, engineered wood and EIFS.
           5. Will not warp or split like wood furring strips.
           6. Color: Black.
        2. Properties:
           1. UV resistant.
           2. Brittleness Temperature per ASTM D746: Minus 103 degrees F (39 degrees C).
           3. Deflection Temperature per ASTM D648: 162 degrees F (72 degrees C) at 66 psi (455 kPa).
           4. Self-Ignition Temperature per ASTM D1929-91aL: 734 degrees F (390 degrees C).
           5. Burn Rate per ASTM D635: 2.5 inches (64 mm) per minute.
           6. Smoke Density per ASTM D2843-93: 9.3 percent; "Excellent."
           7. Compressive Strength per ASTM D642 to Buckling: 130 psi (896 kPa) with 180 lbs per msf (81.64 kg per 92.903 sq m) board.

\*\* NOTE TO SPECIFIER \*\* Delete furring strip options not required.

* + - 1. ProTect Furring Strips:
         1. Net Free Area: 5.6 sq inches per lineal foot (11853 sq mm per lineal m).
         2. Dimensions (WxLxH): 1-1/2 x 104 x 3/4 inches (38 x 2642 x 19 mm).
      2. ProTect Furring Strips:
         1. Net Free Area: 5.6 sq inches per lineal foot (11853 sq mm per lineal m).
         2. Dimensions (WxLxH): 3 x 104 x 3/4 inches (76 x 2642 x 19 mm).
      3. ProTect Furring Strips:
         1. Net Free Area: 2.8 sq inches per lineal foot (5927 sq mm per lineal m).
         2. Dimensions (WxLxH): 1-1/2 x 104 x 5/16 inches (38 x 2642 x 8 mm).
      4. ProTect Furring Strips:
         1. Net Free Area: 2.8 sq inches per lineal foot (5927 sq mm per lineal m).
         2. Dimensions (WxLxH): 3 x 104 x 5/16 inches (76 x 2642 x 8 mm).
    1. Fasteners:
       1. Nails: 5d ring-shank of stainless steel.
       2. Staples: 16 gauge stainless steel of sufficient length to penetrate sheathing.
    2. Adhesives: Quarrix ProTect Furring Strips have been corona treated to help with bonding.
       1. High-density polyethylene (HDPE) compatible sealants conforming to ASTM C920.
  1. PROTECT DRAIN MAT FOR SIDING
     1. Basis of Design: Quarrix ProTect Drain Mat as manufactured by Quarrix Building Products. A 3D non-woven drainage mat comprised of polypropylene mesh (PP) and a non-woven polyester nylon protective membrane that helps create a drainage plane for trapped water to run off and an air cavity to promote drying.
        1. The mat serves as a component of the rainscreen system that will help extend the life of siding material and prevent moisture damage to exterior walls.
        2. Applicable use for wood, fiber-cement, vinyl, stucco, brick and stone, engineered wood and EIFS.
        3. Dimensions (WxLxH): 39 inches x 61-1/2 ft x 1/4 inch (1 m x 18.7 m) x 6 mm).
        4. Properties:
           1. Drainage Efficients per ASTM E2925: Greater than 94 percent efficiency.
           2. Fire Rating per ASTM E84: Class A.
           3. Color: Black: 3D non-woven mesh. Gray: Protective membrane.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until air and vapor membrane are in place as recommended by the siding manufacturer and substrates have been properly prepared.
      2. Verify surfaces are dry, free of ridges, warps, or voids.
      3. If openings and substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. General: Install in accordance with manufacturer's printed instructions.
      2. Siding Furring Strips: Quarrix ProTect Furring Strips.
         1. Striking Lines for Installing Furring Strips:

\*\* NOTE TO SPECIFIER \*\* Delete one of the two following paragraphs, whever is not required.

* + - * 1. For Horizontal Siding Applications: Strike vertical lines over the wall surface spaced as recommended by the siding manufacturer.
        2. For Vertical Siding Applications: Strike horizontal lines over the wall surface spaced as recommended by the siding manufacturer.

Making sure to install Furring Strips horizontally up the wall surface.

* + - 1. Install a 3/4 inch (19 mm) furring strip horizontally just below the soffit at the very top of the house wall.
      2. Install a 3/4 inch (19 mm) furring strip horizontally at the bottom of the wood on wall.
      3. Place 3/8 inch (10 mm) furring strip every 16 inches (406 mm) on center using fasteners that penetrate plywood 1/2 inch (13 mm).
      4. Furring strips should be placed approximately 1 inch (25 mm) from the edge of the wall.
      5. Furring Strips should be placed under trim, in corners and around windows and placed to support the width of trim.
      6. Attach wall siding according to manufacturer's instructions and penetrate into framing.
    1. Siding Drain Mat: Quarrix ProTect Drain Mat:
       1. Install a suitable water resistive barrier (WRB) over exterior sheathing or continuous exterior insulation per the manufacturer's installation instructions and flashing details.
          1. It is Recommended: Install WRB at least 3/4 inches (19 mm) below the framing bottom edge at the wall bottom to prevent moisture tracking from the siding to the framing.
       2. Place the ProTect Drain Mat against the bottom of the wall such that the bottom edge of the drainage mesh aligns with the bottom edge of the WRB and roll out horizontally.
          1. The drainage mesh should be touching the WRB with the filter fabric to the outside and the 3 inch (76 mm) filter fabric flap extending below the bottom edge of the WRB.
          2. When a Weep Screed is Used: The bottom edge of the drainage mesh should align with the top of the weep screed.
       3. Secure the ProTect Drain Mat to the wall by mechanically fastening with staples, nails, cap screws or cap nails that are corrosion-resistant and minimum 1/2 inch (13 mm) long. One fastener per square foot.
          1. Do not install fasteners through any flashings or weep screeds.
          2. The ProTect Drain Mat will be permanently secured in place by the siding fasteners when the cladding is installed.
       4. At the bottom of the wall, fold the 3 inch (76 mm) flap behind the drainage mesh and over the WRB along the bottom edge of the ProTect Drain Mat to create an insect screen.
          1. Fasten through the bottom of the ProTect Drain Mat so that the 3 inch (76 mm) flap is secured in place between the drainage mesh and WRB.
       5. Once installed along the bottom of the wall, install additional courses by aligning ProTect Drain Mat so that the bottom edge of the drainage mesh butts up to the top of the course below and the 3 inch (76 mm) flap hangs down over the top of the lower course. The 3 inch (76 mm) flap may be tacked with a staple or construction adhesive if needed to hold in place. In order to maintain a level plane across the wall, do not overlap the drainage mesh at the seams between rolls.
       6. With a utility knife, scissors or shears, cut the ProTect Drain Mat flush around all windows, doors, penetrations and along the top of the wall, making sure to not cut the WRB or any flashings behind the ProTect Drain Mat.

\*\* NOTE TO SPECIFIER \*\* The following is optional. Delete not required.

* + - 1. Insect Screen at the Top of the Wall: Invert the top course of the ProTect Drain Mat with the 3 inch (76 mm) flap facing up and fold the flap behind the drainage mesh so that the flap is between the WRB and drainage mesh. Fasten through the ProTect Drain Mat so that the 3 inch (76 mm) flap is secured in place between the drainage mesh and WRB.

\*\* NOTE TO SPECIFIER \*\* Delete any of the remaining paragraphs that are not required.

* + - 1. Stucco/Stone: Attach woven wire, expanded metal lathe or coated fiberglass stucco reinforcement over the ProTect Drain Mat per the manufacturer's guidelines
         1. Apply stucco per the manufacturer's installation instructions.
         2. Include a minimum 1/4 inch (6 mm) gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the cladding.
      2. Thin Brick/Manufactured Stone: Attach woven wire, expanded metal lathe or coated fiberglass stucco reinforcement over the ProTect Drain Mat per the manufacturer's guidelines.
         1. Apply a scratch coat per the manufacturer's installation instructions.
         2. Apply think brick or stone per manufacturer's installation instructions, making sure to include a minimum 1/4 inch (6 mm) gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the thin brick or stone.
      3. Fiber Cement, Wood and Composite Wood: Install siding per manufacturer's installation instructions.
         1. Include a minimum 1/4 inch (6 mm) gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the siding.
         2. Fasteners should accommodate the thickness of the ProTect Drain Mat and should not be overdriven.
  1. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturers recommendations.
     2. Protect installed products until completion of project.
     3. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION