

GUIDE SPECIFICATION



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SECTION 07 40 00

PROTECT FURRING STRIPS AND DRAIN MAT

This specification guide is written in Construction Specifications Institute (CSI) 3-Part Format and has been prepared by Quarrix Building Products. The information provided is to assist Specifiers in preparing written construction documents for specifying ProTect Furring Strips and ProTect Drain Mat for use with wood, fiber-cement, vinyl, stucco, brick and stone, engineered wood and EIFS siding systems that provide both a vertical channel for air and moisture to vent and vapor penetration of the exterior wall. Quarrix ProTect Furring Strips are also used with metal and slate roofing to elevate the starter course into the same plane as the rest of the roof. This allows air and moisture to vent and drain out of the roof. Sections must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Quarrix reserves the right to change or make modifications to the specification guide at any time. Updates can be found on manufacturer's website and distributed in print.

Specifier notes are highlighted in blue text. Delete all Specifier notes after editing the section. Notes can be hidden or shown by clicking on the Show/Hide button in Word taskbar. To print notes, select File in the Word taskbar. Then select Options, click Display, select Print Options and check Print Hidden. These instructions vary depending on Word versioning.

For specification assistance,
contact Quarrix Customer Service toll-free at 800-438-2920 or info@quarrix.com

QUARRIX FURRING STRIPS SPECIFICATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quarrix ProTect Furring Strips and Drain Mat for use with siding systems.

1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.
- B. Section 07 46 16 – Aluminum Siding.

1.3 REFERENCES

- A. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- B. ASTM C 834 - Standard Specification for Latex Sealants.
- C. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- D. ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
- E. ASTM D 746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
- F. ASTM D 1929 - Standard Test Method for Determining Ignition Temperature of Plastics.
- G. ASTM D 2843 - Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
- H. ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
- I. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials
- J. ASTM E 2925 - Standard Specification for Manufactured Polymeric Drainage and Ventilation Materials Used to Provide a Rainscreen Function

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. 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 methods.
- C. Verification Samples: For each finish product specified, two full size samples representing actual product, color, and patterns.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Maintain dry storage area for products of this section until installation of products

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.7 WARRANTY

- A. Manufacturer's limited lifetime warranty

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Quarrix Building Products, A Division of Liberty Plastics Inc an LDI Company, which is located at: 705 Pennsylvania Ave. S.; Minneapolis, MN 55426; Toll Free Tel: 800-438-2920; Tel: 763-540-9700; Fax: 763-540-9709; Email to request info (Info@quarrix.com); Web: <http://www.quarrix.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 PROTECT FURRING STRIP ACCESSORIES FOR SIDING

- A. ProTect Furring Strips: Quarrix ProTect Furring Strips are made of High Density Polyethylene (HDPE) corrugated plastic that promotes airflow and drainage behind cladding, is crush-resistant and resists moisture, mold, mildew. Applicable use for wood, fiber-cement, vinyl, stucco, brick and stone, engineered wood and EIFS. ProTect furring strips will not warp or split like wood furring strips.
 - 1. ProTect Furring Strips:
 - a. Net Free Area: 5.6 sq. inches (118.53 cm sq/lineal m) per lineal foot.
 - b. Color: Black
 - c. Dimensions: 1-1/2 inches (38.1 mm) wide by 8-foot 8-inch (2.6 m) long by 3/4 inch (19 mm) high.
 - 2. ProTect Furring Strips:
 - a. Net Free Area: 5.6 sq. inches (118.53 cm sq/lineal m) per lineal foot.
 - b. Color: Black
 - c. Dimensions: 3 inches (76.2 mm) wide by 8-foot 8-inch (2.6 m) long by 3/4 inch (19 mm) high.
 - 3. ProTect Furring Strips:
 - a. Net Free Area: 2.8 sq. inches (59.27 cm sq/lineal m) per lineal foot.
 - b. Color: Black
 - c. Dimensions: 1-1/2 inches (38.1 mm) wide by 8-foot 8-inch (2.6 m) long by 5/16 inch (7.9 mm) high.
 - 4. ProTect Furring Strips:
 - a. Net Free Area: 2.8 sq. inches (59.27 cm sq/lineal m) per lineal foot.

- b. Color: Black
- c. Dimensions: 3 inches (76.2 mm) wide by 8-foot 8-inch (2.6 m) long by 5/16 inch (7.9 mm) high.

Properties:

- 1) Brittleness temperature to minus 103 degrees F (ASTM D 746) and deflection temperature of plus 162 degrees F at 66 PSI (ASTM D 648)
- 2) Burn rate of 2.5 inches/minute (ASTM D 635)
- 3) Self-ignition temperature of 734 degrees F (ASTM D 1929-91a)
- 4) Smoke density of 9.3% (ASTM D 2843-93) "excellent".
- 5) UV resistant.
- 6) Compressive strength to buckling is 130 psi with 180lb/msf board (ASTM D 642)

B. Fasteners:

- 1. 5d ring-shank nails of stainless steel or 16 gauge stainless steel staples of sufficient length to penetrate sheathing.

C. Adhesives:

- 1. Quarrix ProTect Furring Strips have been corona treated to help with bonding
- 2. Use high-density polyethylene (HDPE)-compatible sealants that conform to ASTM C920.

2.3 PROTECT DRAIN MAT FOR SIDING

- A. ProTect Drain Mat: Quarrix ProTect Drain Mat is 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. ProTect Drain Mat serves as a component of the rainscreen system that will help extend the life of the siding material and prevent moisture damage to exterior walls. Applicable use for wood, fiber-cement, vinyl, stucco, brick and stone, engineered wood and EIFS.

1. ProTect Drain Mat:

- a. Color: Black (3D non-woven mesh) and gray (protective membrane)
- b. Dimensions: 39 inches (1 m) wide by 61 ½ feet (18.7 m) long by 1/4 inch (6 mm) high.

Properties:

- 1) Greater than 94% drainage efficiency (ASTM E 2925)
- 2) Class A fire rating (ASTM E 84)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until water-resistive barrier (WRB) is in place as recommended by the siding manufacturer and substrates have been properly prepared.
- B. Verify surfaces are dry, free of ridges, warps, or voids.
- C. If openings and substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 INSTALLATION

- A. General: Install in accordance with manufacturer's printed instructions

- B. Siding Furring Strips: Quarrix ProTect Furring Strips.
1. For horizontal siding applications, strike vertical lines over the wall surface spaced as recommended by the siding manufacturer.
 2. Install a 3/4-inch (19mm) furring strip horizontally just below the soffit at the very top of the house wall.
 3. Install a 3/4-inch (19mm) furring strip horizontally at the bottom of the wood on wall.
 4. Place 3/8-inch (10mm) furring strip every 16-inches on center using fasteners that penetrate plywood 1/2-inch.
 5. Furring strips should be placed approximately 1-inch from the edge of the wall.
 6. Furring Strips should be placed under trim, in corners and around windows and placed to support the width of trim.
 7. For vertical siding applications, strike horizontal lines spaced as recommended by the siding manufacturer and follow steps 2 – 6 from above, making sure to install the Furring Strips horizontally up the wall surface.
 8. Attach wall siding according to manufacturer's instructions and penetrate into framing.
- C. Siding Drain Mat: Quarrix ProTect Drain Mat
1. Install a suitable water resistive barrier (WRB) over the exterior sheathing or continuous exterior insulation per the manufacturer's installation instructions and complete flashing details. It is recommended to install the WRB at least ¼" below the bottom edge of the framing at the bottom of the wall in order to prevent moisture tracking from the siding to the framing.
 2. Place the ProTect Drain Mat against the bottom of the wall so that the bottom edge of the drainage mesh aligns with the bottom edge of the WRB and roll out horizontally. The drainage mesh should be touching the WRB with the filter fabric to the outside and the 3" filter fabric flap will extend below the bottom edge of the WRB. Note: 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 ½" length, with one fastener per square foot. The ProTect Drain Mat will be permanently secured in place by the siding fasteners when the cladding is installed. Note: Do not install fasteners through any flashings or weep screeds.
 4. At the bottom of the wall, fold the 3" flap behind the drainage mesh and over the WRB along the bottom edge of the ProTect Drain Mat to create an insect screen. Fasten through the bottom of the ProTect Drain Mat so that the 3" 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" flap hangs down over the top of the lower course. The 3" 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.
 7. [Optional] If an insect screen is needed at the top of the wall, invert the top course of the ProTect Drain Mat with the 3" 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" flap is secured in place between the drainage mesh and WRB.
 8. Stucco/Stone – Attach woven wire, expanded metal lathe or coated fiberglass stucco reinforcement over the ProTect Drain Mat per the manufacturer's guidelines Then apply stucco per the manufacturer's installation instructions, making sure to include a minimum ¼"

gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the cladding.

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. Next, apply a scratch coat per the manufacturer's installation instructions. Then apply thin brick or stone per the manufacturer's installation instructions, making sure to include a minimum ¼" gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the thin brick or stone.

Fiber Cement, Wood and Composite Wood – Install siding per manufacturer's installation instructions, making sure to include a minimum ¼" gap at the top of the wall or install weeps per the manufacturer's guidelines to promote airflow behind the siding. Fasteners should accommodate the thickness of the ProTect Drain Mat and should not be overdriven.

3.3 PROTECTION

- A. Protect installed products until completion of project.
- B. Repair or replace damaged products before Substantial Completion.

END OF SECTION