# **DELTA**<sup>®</sup> System

HIGH PERFORMANCE AIR & MOISTURE BARRIERS

# **DELTA®-TRELA**

# **Vapor Permeable Underlayments for Metal Roofs Installation Instructions**

## **Health and Safety**

- Required safety equipment: hard hat, safety boots, gloves, safety glasses, fall arrest equipment.
- Always follow all safety precautions as directed by the Occupational Safety and Health Administration (OSHA-USA) or the Construction Safety Association (Canada).
- Please refer to Safety Data Sheets for all components and observe all recommended safety precautions therein.
- The general codes of practice for protection at work and instructions of the manufacturers for tools and components are to be observed at all times.

# **Recommended Materials**

- DELTA®-TRELA
- DELTA®-TILAXX sealant
- DELTA®-MULTI BAND tape
- DELTA®-FLEXX-BAND tape
- DELTA®-SEALING NAIL (included with each roll) (120)

#### **Recommended Tools**

- Utility knife or scissors
- Caulking gun
- Hammer or automated nailing gun
- Roofing nails, minimum 1" (2.5 cm) long with minimum 1" (2.5 cm) diameter plastic or metal cap

# **Notes and Limitations**

- These installation instructions for DELTA®-TRELA are intended only as a guide and are for the convenience of the contractors, specifiers, and other interested parties. The final application and details are the sole responsibility of the design authority on record for the project.
- Always confirm the local building code requirements prior to installation.
- Do not install DELTA®-TRELA in adverse weather conditions. High winds may hamper application.
- The substrate should be dry prior to application.
- Cap nails can be either pneumatically or hand fastened.
- In all typical wind areas, install fasteners at 12" (30 cm) on center along sides and end laps. In high wind areas and coastal areas, install fasteners at 6" (15 cm) on center along sides and end laps.
- It is strongly recommended that the installation be done with entirely concealed fasteners for the best precipitation resistance and air tightness.
- Prior to beginning the installation of the DELTA®-TRELA, install drip edge at all eaves and ice dam barrier, if required by the local Building Code.
- Ensure protrusions that may penetrate the membrane are removed from substrate.
- Product is not designed for permanent UV exposure. Always cover as soon as possible.

#### Installation

- Always begin the installation of DELTA®-TRELA at eaves edge of the roof to ensure proper downward shingling of the horizontal laps.
- DELTA®-TRELA is installed as an underlayment membrane, horizontally (parallel to the eaves). Starting at the eaves, with the dimple texturing facing upward and the 4" (10 cm) edge margin positioned on the side closer to the ridge (see Detail 1). When fastening in the field area, use wide-head nails with DELTA®-SEALING NAIL.
- Install the next roll so that it overlaps the salvage edge of the roll immediately below, ensuring proper water drainage (see Detail 2).







- When fastening in the overlaps areas, standard 1 1/2" roofing nails may be used.
- At the end of the roll, peel and cut of a 4" (10 cm) wide strip of the air-gap mat to permit overlap at the end of the adjacent roll (see Detail 3). Use the same procedure for connections to valleys, dormer windows etc. The non-directional dimple texturing of DELTA®-TRELA allows installation at any angle (i.e. not only parallel to eaves) when required (e.g. at structural details). On transition areas not requiring an air-gap layer, use DELTA®-VENT S for roll compatibility.
- Extend DELTA®-TRELA (or Extend DELTA®-VENT S, if air-gap layer in not required) at least 6" (15 cm) up on sides of chimneys, vertical walls, etc. To ensure a secure and watertight seal, fasten the underlayment to the surface with DELTA®-TILAXX or DELTA®-MULTI BAND (see Detail 4, 5).

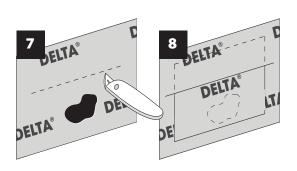
### **Service Penetrations**

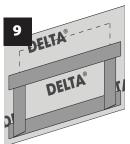
■ When encountering a service penetration protruding from the roof deck, "X-cut" DELTA®-TRELA to fit over protrusions. Seal directly to the protrusion using either DELTA®-FLEXX-BAND or DELTA®-MULTI BAND, ensuring a secure and water-tight seal (see Detail 6).

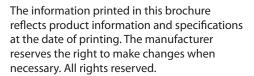
### Inspection and Clean-up

- Inspect the DELTA®-TRELA for rips, tears, or other installation deficiencies in the continuity. Tape rips, tears or holes smaller than 2″ (50 mm) with DELTA®-MULTI BAND.
- For holes greater than 2" (5 cm), a patch is required:
  - Cut a slit approximately 3" (8 cm) above the hole and approximately 3" (8 cm) wider than the hole (see Detail 7).
  - Cut a patch minimum 6" (15 cm) larger than the hole.
  - Slide the top edge up into the cut slit so that the patch covers the hole (see Detail 8).
  - Tape the patch in the following order (see Detail 9).
    - 1. Bottom
    - 2. Sides
    - 3. Top
- Standard-sized fixing clips and nails can be used to fix the cladding panels due to the high compressibility of the dimpled air-gap mat.
- Install the final roof as per the manufacturer's installation instructions.

  For technical support, call our Technical Support Team at 1-888-433-5824 extension 326, or visit <a href="https://www.dorken.com">www.dorken.com</a>.



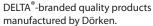






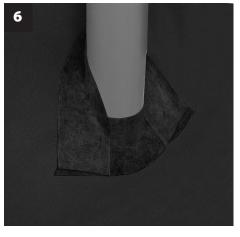


**Canadian** Home Builders' Association









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