

**ICC-ES Evaluation Report****ESR-2745**

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**DIVISION: 07—THERMAL AND MOISTURE PROTECTION**  
**Section: 07310—Shingles****REPORT HOLDER:****INSPIRE ROOFING PRODUCTS**  
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[www.tapcoint.com](http://www.tapcoint.com)**EVALUATION SUBJECT:****INSPIRE SLATE ROOF SHINGLES****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)
- Other Codes (see Section 8.0.)

**Properties evaluated:**

- Weather resistance
- Fire classification
- Wind resistance

**2.0 USES**

The Inspire Slate roof shingles are used as roof covering materials and are recognized as a Class A or Class C roof covering.

**3.0 DESCRIPTION****3.1 Inspire Slate Roof Shingles:**

The Inspire Slate roof shingles are compression-molded from a proprietary blend of polymer-based materials to emulate natural slate tile roofing. The shingles are nominally 17 inches in length and 12 inches in width. Inspire Slate shingles are manufactured in various standard and “premium” colors, and may be custom ordered in a variety of color blends.

**3.2 Underlayment:**

Underlayment must be a minimum of one layer of Type II (No. 30) asphalt-saturated organic felt, complying with ASTM D 226.

**3.3 Fasteners:**

To secure the roof shingles to the sheathing, stainless steel or copper nails or stainless screws of sufficient length to penetrate the sheathing  $\frac{3}{4}$  inch (19 mm) must be used.

**4.0 INSTALLATION****4.1 General:**

The Inspire Slate roof shingles must be installed in accordance with IBC Section 1507.7 or IRC Section R905.6, as applicable, and the manufacturer's published installation instructions, except as noted in this report. The manufacturer's installation instructions must be available at the jobsite at all times during installation.

The shingles must be installed on roofs with solid sheathing and a minimum slope of 4:12 (33 percent slope). Solid sheathing must be minimum  $\frac{15}{32}$ -inch-thick (11.9 mm) exterior-grade plywood,  $\frac{7}{16}$ -inch-thick (11.1 mm) oriented strand board (OSB), or nominally 1-inch-thick (25.4 mm) lumber. The sheathing must be structurally adequate and fastened to resist the wind loads as specified by IBC Section 1609 or IRC Section R301.2, for components and cladding.

Flashing must be in accordance with IBC Sections 1503.2 and 1507.7.6 or IRC Sections R903.2 and R905.6.6, as applicable.

**4.2 Underlayment:**

Underlayment must be installed in accordance with the applicable code. In areas where the average daily temperature in January is 25°F (-4°C) or less, or where there is a possibility of ice forming along the eaves and causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together, or of a self-adhering polymer-modified bitumen sheet, must extend from the eave's edge to a point 24 inches (610 mm) inside the exterior wall line of the building.

**4.3 Roof Shingles:**

Starting with a row of 12-inch-wide (305 mm) starter slates, the shingles must extend approximately  $\frac{1}{2}$  inch (12.7 mm) over the eaves and rakes. The shingles are secured to the sheathing using two fasteners, as described in Section 3.3, through the premolded nail markers.

The field shingles are installed flush with the starter slate shingles on the outer and lower edges. Spacer tabs are provided to maintain a consistent  $\frac{1}{4}$ -inch (6.4 mm) gap between shingles.

**4.4 Hips, Ridges and Valleys:**

Hips, ridges and valleys must be flashed in accordance with the manufacturer's published installation instructions.

**4.5 Fire Classification:**

The Inspire Slate roof shingles comply with IBC Section 1505.1 and IRC Section R902.1 as a Class A or Class C

roof covering, when installed in accordance with this report. Maximum allowable exposure is 7.5 inches (190 mm) for a Class A or Class C rating.

**4.5.1 Class A Roof Covering:** The shingles provide a Class A roof covering when installed as follows:

Deck -  $1\frac{5}{32}$ -inch (11.9 mm) min. wood structural panel (Exposure 1)

Maximum roof slope - Unlimited

Underlayment - MBTechnology Layfast SBS roof underlayment (TU35, TU43 or TU70), recognized in [ESR-2799](#).

Maximum shingle exposure - 7.5 inches (190 mm)

**4.5.2 Class C Roof Covering:** The shingles provide a Class C roof covering when installed as follows:

Deck -  $1\frac{5}{32}$ -inch (11.9 mm) min. wood structural panel (Exposure 1)

Maximum roof slope - Unlimited

Underlayment - Type II (No. 30) asphalt-saturated organic felt

Maximum shingle exposure - 7.5 inches (190 mm)

#### 4.6 Wind Resistance:

The shingles are limited to installation in areas subject to a maximum basic wind speed of 100 mph (161 km/h), on structures with a maximum roof height of 40 feet (12.2 m), in Exposure B areas.

#### 4.7 Reroofing:

Prior to application of the shingles, the existing roof covering and underlayment must be completely removed. Any damaged sheathing must be replaced. The installation of the shingles must then proceed as described in Sections 4.1 through 4.4.

### 5.0 CONDITIONS OF USE

The Inspire Slate roof shingles described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

**5.1** Installation must comply with the applicable code; the manufacturer's published installation instructions and this report. The instructions within this report govern if there are any conflicts between the manufacturer's installation instructions and this report.

**5.2** The roof shingles are manufactured in Metamora, Michigan, under a quality control program with inspections by Intertek Testing Services NA, Inc. (AA-690).

### 6.0 EVIDENCE SUBMITTED

Data in accordance with ICC-ES Acceptance Criteria for Special Roofing Systems (AC07), dated April 2007 (corrected February 2009).

### 7.0 IDENTIFICATION

Each bundle of 25 shingles is labeled with the manufacturer's name (Inspire Roofing Products), model number, the evaluation report number (ESR-2745), and the name of the inspection agency (Intertek Testing Services NA, Inc.). Each shingle is embossed with the manufacturer's name, the Class rating and production date codes.

### 8.0 OTHER CODES

#### 8.1 Evaluation Scope:

In addition to the codes referenced in Section 1.0, the products in this report were evaluated for compliance with the requirements of the 1997 *Uniform Building Code*® (UBC).

#### 8.2 Uses:

See Section 2.0.

#### 8.3 Description:

**8.3.1 General:** See Section 3.1.

**8.3.2 Underlayment:** See Section 3.2.

**8.3.3 Fasteners:** See Section 3.3.

#### 8.4 Installation:

**8.4.1 General:** The Inspire Slate roof shingles must be installed in accordance with UBC Section 1507.11 and the manufacturer's published installation instructions, except as noted in this report. The manufacturer's installation instructions must be available at the jobsite at all times during installation.

The sheathing must be structurally adequate and fastened to resist the wind loads as specified by UBC Section 1609 for components and cladding.

Flashing must be in accordance with UBC Sections 1508.4 and 1509.

See Section 4.1 for balance.

**8.4.2 Underlayment:** In areas subject to wind-driven snow, roof ice build-up, or wind-driven dust or sand, an ice barrier that consists of at least two layers of underlayment, cemented together, must extend from the eave's edge to a point 36 inches (914 mm) inside the exterior wall line of the building.

**8.4.3 Roof Shingles:** See Section 4.3.

**8.4.4 Hips, Ridges and Valleys:** See Section 4.4.

**8.4.5 Fire Classification:** The Inspire Slate roof shingles comply with UBC Standard 15-2 as a Class A or Class C roof covering, when installed in accordance with this report. See Section 4.5.

**8.4.6 Wind Resistance:** The shingles are limited to installation in areas subject to a maximum basic wind speed of 80 mph (129 km/h), on structures with a maximum roof height of 40 feet (12.2 m), in Exposure B areas.

**8.4.7 Reroofing:** Prior to application of the shingles, the existing roof covering and underlayment must be completely removed. Any damaged sheathing must be replaced. The installation of the shingles must then proceed as described in Sections 8.4.1 through 8.4.4.

#### 8.5 Conditions of Use:

See Section 5.0.

#### 8.6 Evidence Submitted:

See Section 6.0.

#### 8.7 Identification:

See Section 7.0.

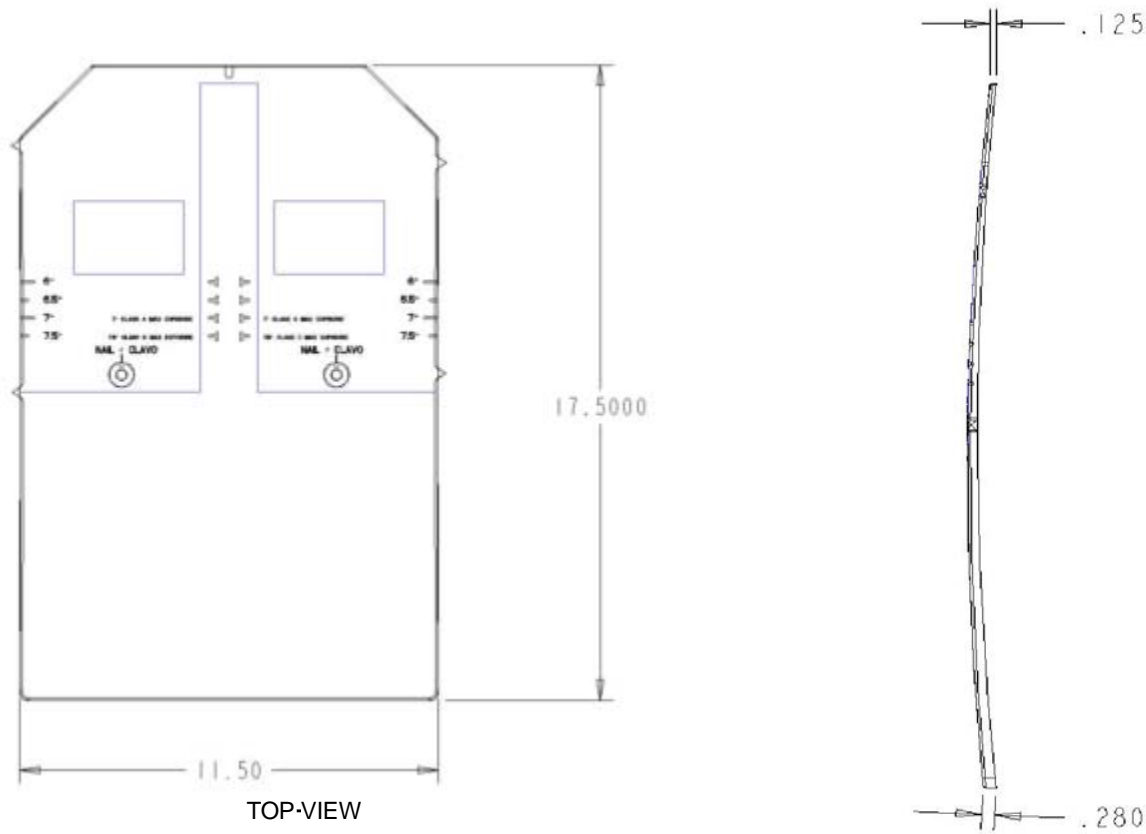


FIGURE 1—SLATE SHINGLE PROFILE