



## ICC-ES Listing Report

### ESL-1460

Reissued September 2023

This listing is subject to renewal in September 2024.

**CSI:** DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION  
Section: 07 57 00—Coated Foam Roofing

#### Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

**Product:** ENDURATECH® PREMIER ROOFING SYSTEM (COATED SPRAY POLYURETHANE FOAM ROOFING SYSTEM)

**Listee:** BARNHARDT MANUFACTURING CO. dba NCFI POLYURETHANES

**Evaluation:** The EnduraTech® Premier Roofing System consists of NCFI 10-011 spray polyurethane foam (SPF) plastic insulation covered with EnduraTech® R or EnduraTech® Q acrylic elastomeric coating. The roof covering system consists of the following components:

#### ■ Spray Polyurethane Foam Plastic Insulation:

- **General:** NCFI 10-011 plastic insulation as formulated has a density between 2.5 and 3.0 pcf (40 and 43 kg/m<sup>3</sup>). The liquid components (designated as component A and component B) are available in 55-gallon (208 L) containers and 275-gallon (1041 L) totes. The liquid components must be stored at temperatures between 70°F (21°C) and 90°F (32°C) for several days before application and must not be exposed to direct sunlight. The shelf life of NCFI 10-011 liquid components is six months in unopened containers.
- **Surface-burning Characteristics:** NCFI 10-011 plastic insulation has a flame-spread index of 25 or less for densities up to 3.0 pcf (43 kg/m<sup>3</sup>) when tested in accordance with UL 723 (ASTM E84) at a maximum thickness of 4 inches (102 mm).

#### ■ Coatings:

- **EnduraTech® R and EnduraTech® Q Acrylic Elastomeric Coatings:** EnduraTech® R (Standard) and EnduraTech® Q (Quickset) acrylic elastomeric coatings are single-component, liquid-applied, 100 percent acrylic coatings complying with ASTM D6083. The coatings are available in 5-gallon (19 L), 55-gallon (208 L) and 275-gallon (1041 L) totes, and have a shelf life of 12 months when stored in factory-sealed containers at temperatures between 60°F (15.5°C) and 110°F (44°C).

The EnduraTech® Premier Roofing Systems were evaluated when tested in accordance with the following standards:

- ASTM E108 (-16, -11, and -07a), Standard Test Methods for Fire Tests of Roof Coverings, ASTM International.
- UL 790 (-04 with revisions through July 2014, -04 with revisions through October 2008, and -04), Standard Test Methods for Fire Tests of Roof Coverings, Underwriters Laboratories, Inc.

**Findings:** The roof covering systems are classified as Class A or Class B as listed under Table 1, when installed over either noncombustible (concrete or metal) or wood substrates and as described in Table 1. Roof classifications are based on testing in accordance with ASTM E108 / UL 790, as referenced in the applicable sections of the following code editions below:

- 2018, 2015, 2012 and 2009 *International Building Code*®  
Applicable Section: 1505.1
- 2018, 2015, 2012 and 2009 *International Residential Code*®  
Applicable Section: R902.1

**Identification:**

1. Containers of NCFI 10-011 liquid components are labeled with the manufacturing date, the NCFI Polyurethanes name and address, the product name (NCFI 10-011), component type (A or B), the lot numbers, the flame spread index, and the evaluation report number (ESR-3392) and / or ICC-ES listing number (ESL-1460), and when applicable, the ICC-ES listing mark.
2. Containers of EnduraTech® R and EnduraTech® Q liquid-applied coatings are labeled with the NCFI Polyurethanes name and address, the product name, the lot number, the evaluation report number (ESR-3392) and / or ICC-ES listing number (ESL-1460), and when applicable, the ICC-ES listing mark.
3. The report holder’s contact information is the following:  
**BARNHARDT MANUFACTURING CO. dba NCFI POLYURETHANES**  
**POST OFFICE BOX 1528**  
**MOUNT AIRY, NORTH CAROLINA 27030**  
**(800) 346-8229**  
[www.ncfi.com](http://www.ncfi.com)

**Installation:** The system must be installed in accordance with NCFI Polyurethanes’ published installation instructions and applicable codes.

**Conditions of listing:**

1. Additional attributes and their applications can be found in the ICC-ES Evaluation Report, ESR-3392.
  2. The listing report addresses only conformance with the standards and code sections noted above.
  3. Approval of the product’s use is the sole responsibility of the local code official.
  4. The listing report applies only to the materials tested and as submitted for review by ICC-ES.
  5. The NCFI 10-011 plastic insulation is manufactured in Mount Airy, North Carolina, and Clearfield, Utah, under a quality control program with inspections by ICC-ES.
- EnduraTech® R and EnduraTech® Q acrylic elastomeric coatings are manufactured in Scottsdale, Arizona, under a quality control program with inspections by ICC-ES.

**TABLE 1—ENDURATECH® PREMIER ROOF COVERING SYSTEM FIRE CLASSIFICATION**

SYSTEM NO. <sup>1</sup>	ROOF DECK TYPE	FOAM PLASTIC INSULATION		COATING		TOP SURFACING	MAXIMUM ROOF SLOPE	ROOF CLASSIFICATION
		Product Designation	Minimum Thickness (inches)	Type	Application Rate			
1	Noncombustible	10-011	1	EnduraTech® R or Q	Two applications at 1.75–1.85 gal/sq./coat	None	1:12	A
2	Noncombustible	10-011	1	EnduraTech® R or Q	3.7 gal/sq., maximum	No. 11 roofing granules at 45 lbs/sq.	4:12	A
3	Minimum <sup>15</sup> / <sub>32</sub> -thick plywood	10-011	1.5	EnduraTech® R or Q	3.7 gal/sq., maximum	No. 11 roofing granules at 45 lbs/sq.	<sup>1</sup> / <sub>2</sub> :12	B

For SI: 1 inch = 25.4 mm.

<sup>1</sup> Roof covering systems may be applied over an existing uninsulated roof covering without changing the existing roof covering’s fire classification.