

ICC-ES Evaluation Report

ESR-2410

Reissued June 1, 2010

This report is subject to re-examination in one year.www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 05—METALS
Section: 05310—Steel Deck**REPORT HOLDER:****ASC BUILDING PRODUCTS, A DIVISION OF ASC PROFILES**
2110 ENTERPRISE BOULEVARD
WEST SACRAMENTO, CALIFORNIA 95691
(800) 360-2477
www.ascbuildingproducts.com**EVALUATION SUBJECT:****ASC NOR-CLAD® STEEL ROOF DECK PANEL****1.0 EVALUATION SCOPE****Compliance with the following code:**2006 *International Building Code*® (IBC)**Property evaluated:**

Structural

2.0 USES

The ASC Nor-Clad® steel roof deck panel is used as roof deck.

3.0 DESCRIPTION

The ASC Nor-Clad® steel roof deck panel has a fluted section and is cold-formed from steel sheets conforming to ASTM A 792 SS Grade 80 Class 1 or 2 with a minimum AZ50 galvanization coating, or ASTM A 653 SS Grade 80 Class 1 or 2 with a minimum G40 galvanization coating. The panels are rolled in 36-inch (914.4 mm) coverage widths with ⁵/₈-inch-deep (15.68 mm) ribs spaced 9 inches (229 mm) on center as shown in Figure 1. Panel section and strength properties are listed in Table 1.

4.0 DESIGN AND INSTALLATION**4.1 Design:**

Permitted gravity loads and wind uplift loads must be based on section properties shown in Table 1. The section properties in this report are established using the design thickness noted in Table 1. The yield stress (F_y) must be taken as 60 ksi (413.6 MPa), maximum. The tensile stress (F_u) must be taken as 61.5 ksi (424 MPa), maximum.

4.2 Installation:

Installation must be in accordance with the approved plans and calculations and requirements set forth in IBC Section 2210.

5.0 CONDITIONS OF USE

The ASC Nor-Clad® Steel Roof Deck Panel described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The deck panels are manufactured, identified and installed in accordance with this report and the ASC Building Products published installation instructions. If there is a conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 Calculations and details for the design and installation of Nor-Clad® steel roof deck must be submitted to the code official for approval. Calculations and drawings must be prepared, signed, and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.3 Use of Nor-Clad® steel roof deck panels has not been evaluated for use without a roof covering.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), dated February 2008 (editorially revised April 2008).

7.0 IDENTIFICATION

Each bundle of ASC Nor-Clad® steel roof deck panels is identified by labeling bearing the manufacturer's name (ASC Building Products); the steel deck panel profile name; the design thickness; the minimum specified yield strength; the manufacturing locations (Salt Lake City, Utah; Salem, Oregon; Spokane, Washington); the cover width of the panel; the customer's name; and the ICC-ES evaluation report number (ESR-2410).

TABLE 1—NOR-CLAD[®] SECTION PROPERTIES^{1,2}

GAUGE	WEIGHT (psf)	BASE-METAL THICKNESS (in)	FULL MOMENT OF INERTIA (I_x) (in ⁴ /ft)	SECTION MODULUS ⁴ NORMAL POSITION (S_{en}) (in ³ /ft)	MOMENT OF INERTIA NORMAL POSITION (I_{on}) (in ⁴ /ft)	SECTION MODULUS ⁴ INVERTED POSITION (S_{ei}) (in ³ /ft)	MOMENT OF INERTIA INVERTED POSITION (I_{oi}) (in ⁴ /ft)	$P_{a\ end}$ ³ (lb/ft)	$P_{a\ int}$ ³ (lb/ft)
29	0.61	0.0133	0.0073	0.0141	0.0070	0.0142	0.0047	140	226
26	0.84	0.0183	0.0100	0.0206	0.0100	0.0195	0.0067	248	400

For **SI**: 1 inch = 25.4 mm, 1 psi = 6894 Pa.

¹All section properties are effective values unless otherwise noted.

²All values are for 1 foot (305 mm) of panel width.

³ P_a is the allowable load for web crippling on end and interior supports with bearing length of 1.5 inches.

⁴Section modulus based on $F_y = 60$ ksi in accordance with AISI-NAS Section A2.3.2.

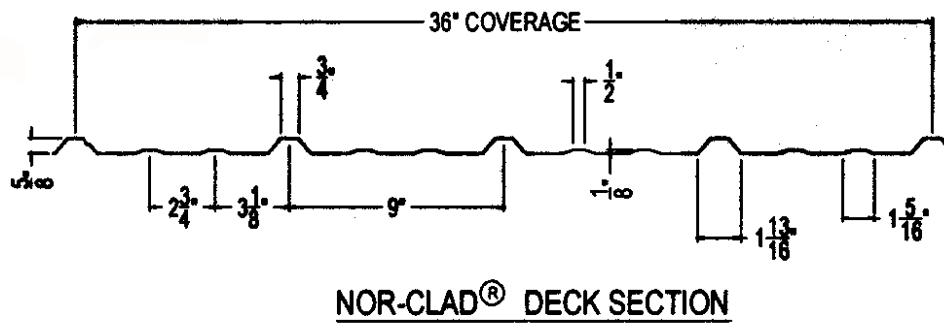


FIGURE 1—NOR-CLAD[®]