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ALL WEATHER INSULATED PANELS 929 Aldridge Road Vacaville, CA 95688 <u>www.awipanels.com</u> <u>bng@awipanels.com</u>

## AWIP FOAM CORE PANELS (ONEDEK<sup>®</sup> RD1/RD1-M ROOF DECK PANEL)

**CSI Sections:** 

05 31 00 Steel Decking 05 11 23 Steel Roof Decking 07 40 00 Roofing and Siding Panels

#### **1.0 RECOGNITION**

All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels recognized in this report have been evaluated for use as roof systems to resist the codeappropriate in-plane and out-of-plane loads. The structural performance, flame spread and smoke development indices, and fire classification properties of the AWIP Foam Core Panels comply with the intent of the provisions of the following codes and regulations:

- 2018, 2015, and 2012, International Building Code<sup>®</sup> (IBC)
- 2019 California Building Code (CBC) attached supplement.
- 2020 Los Angeles Building Code (LABC) —attached supplement.
- 2020 Florida Building Code (FBC)— attached supplement.

## 2.0 LIMITATIONS

Use of AWIP Foam Core Panels described in this report is subject to the following limitations:

**2.1** Panels shall be installed in accordance with this report and the manufacturer's published installation instructions, a copy of which shall be available at the job site. Where conflicts occur, the more restrictive shall govern.

**2.2** Construction plans, details, and calculations for roof framing and panel attachments shall be approved by the building official before panel installation. Calculations and details shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

**2.3** When the Foam Core Panels are used as the stressed skin shear carrying element of a horizontal or sloped diaphragm

as defined in Section 1602 of the IBC, the diaphragm length and width shall be limited by one of the following: engineering mechanics; applied loads; shear capacity of the diaphragm; diaphragm shear deflection limited by the requirements of ASCE/SEI 7 in Sections 12.8.6 entitled, "Story Drift Determination"; or Section 12.12 entitled, "Drift and Deformation". Shear deflection shall be based on the shear stiffness for the steel deck diaphragm and equations of mechanics. Common shear deflection equations as shown in Table 3 of this report may be used.

The use of steel deck diaphragms for vertical diaphragms (shear walls) is beyond the scope of this report.

**2.4** The AWIP OneDek<sup>®</sup> RD1/RD1-M Roof Deck panels described in this report with steel facings have been justified for installation without the thermal barrier required by Section 2603.4 of the IBC.

**2.5** Roof panels are permitted to be part of a Class A roof covering assembly as described in Section 1505.2 of the IBC and Section 3.4.2 of this report.

**2.6** Foam Core Panels are fabricated by All Weather Insulated Panels at its manufacturing facility in Vacaville, California.

#### **3.0 PRODUCT USE**

**3.1 General:** All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels are insulated steel deck panels used as roof systems to resist the code-appropriate in-plane and out-of-plane loads. The OneDek<sup>®</sup> RD1/RD1-M panels are for use as roof panels in combustible non-fire-resistance-rated construction. All panels comply with the requirements for prefabricated construction set forth in Section Appendix K107 of the IBC.

**3.2 Design:** Allowable loads for the OneDek<sup>®</sup> RD1/RD1-M roof deck panel are shown in Tables 1 and 2 of this report. Analyses and fastening schedules may also be provided as required by the building official to demonstrate acceptability for specific applications. The structural steel support members and the connection of the panels to the support members shall be designed to resist the applied forces.

**3.3 Installation:** Each panel shall be installed with the longitudinal edge oriented in the vertical or horizontal direction. Panels may be installed in single or multiple span conditions. Panels shall always run perpendicular to the supporting steel members.



The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safely, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.

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## 3.4 Roof Panels

**3.4.1:** AWIP OneDek<sup>®</sup> RD1/RD1-M series roof deck panels shall be installed at a minimum slope as required to comply with the roof covering requirements set forth in Section 1507 of the IBC and are attached with fasteners through both steel facings of the roof deck panel. Optional butyl sealant shall be placed at the top tongue and groove panel joint and is dependent on the specific roof covering requirements.

The OneDek® RD1 roof deck panels have minimum No. 26 gauge [minimum 0.018 inch (0.457 mm) base metal thickness], No. 24 gauge [minimum 0.02 inch (0.56 mm) base metal thickness] or No. 22 gauge [minimum 0.0273 inch (0.69 mm) base metal thickness] exterior facers and No.26 gauge [minimum 0.0170 inch (0.43 mm) base metal thickness] or No. 24 gauge [minimum 0.02 inch (0.56 mm) base metal thickness] or No. 22 gauge [minimum 0.0273 inch (0.69 mm) base metal thickness] interior facers. The OneDek® RD1-M roof deck panels have minimum No. 22 gauge [minimum 0.0273 inch (0.69 mm) base metal thickness] exterior facers and No.26 gauge [minimum 0.0170 inch (0.43 mm) base metal thickness] or No. 24 gauge [minimum 0.02 inch (0.56 mm) base metal thickness] or No. 22 gauge [minimum 0.0273 inch (0.69 mm) base metal thickness] interior facers. The available combinations of interior and exterior facer thicknesses are provided in Tables 1 and 2 of this report. The panels shall be installed perpendicular to each steel support and shall be fastened using TRUFAST #12 Square Drive Purlin Roofing Fasteners with RP-01 Roof Deck Plate spaced 8 inches (203 mm) on center across the panel width, and for installations where panels with No. 22 gauge facers are required for the loading conditions, with two 1/4-14 Self-Drilling Fasteners per WC-01 Concealed Clip at the panel joint, and with the side-laps fastened using TRUFAST #14 Phillips Drive HD Roofing Fasteners at a specified distance per respective fastening system along the panel joint, as shown in Figures 2 and 3 of this report.

**3.4.2 Additional Considerations:** Roof Panels without coverings are Class A roof covering assemblies. Class A roof coverings complying with Section 1505.2 of the 2018, 2015, and 2012 IBC shall be installed over the panels for weatherproofing. The fasteners shall be sufficient length to penetrate through the panel skins. Underlayment and flashing shall be installed in accordance with the IBC, or a current evaluation report.

**3.5** Allowable Load Capacity: The allowable in-plane diaphragm OneDek<sup>®</sup> RD1/RD1-M roof deck loads were based on diaphragm load testing in accordance with AISI S907 and the allowable out-of-plane OneDek<sup>®</sup> RD1/RD1-M roof deck loads were based on transverse load testing in accordance with ASTM E72 using minimum panel thickness, panel weight, maximum support steel spacing, and minimum

support steel thickness as set forth in Tables 1 and 2 of this report.

**3.6 Construction Type:** OneDek<sup>®</sup> RD1/RD1-M panels having thicknesses of 2 through 8 inches (50.8 to 203 mm) are permitted to be used in Types I, II, III, IV, and V construction.

#### 4.0 PRODUCT DESCRIPTION

**4.1 General:** AWIP Foam Core Panels are factory-assembled sandwich panels with metal facings and a foamed-in-place polyisocyanurate foam plastic insulation core described in the approved quality control manual. The OneDek<sup>®</sup> RD1/RD1-M roof deck panels are available in thicknesses of 2 to 8 inches (50.8 to 203 mm) and are 40 inches (1016 mm) wide and up to 72 feet (21,945 mm) long.

Panels are formed with double tongue-in-groove interlocking longitudinal edges, and straight ends. The panel exterior is a flat smooth steel facing and the interior liner is an embossed mesa profile. The panel profile detail is shown in Figure 1 of this report.

**4.2 Panel Core:** The core is a polyisocyanurate foam plastic insulation core described in the approved quality control manual and complies with ASTM C1029. This polyisocyanurate foam plastic is continuously foamed in place into the core of the panel. The cores have a nominal density of 2.1 through 2.5 pcf (33.6 - 40.0 kg/m<sup>3</sup>). The polyisocyanurate foam plastic insulation core described in the approved quality control manual has a flame-spread index of not more than 25 and a smoke-developed index of not more than 450 when tested in accordance with ASTM E84.

**4.3 Panel Facings:** Panel facings, unless noted, are fabricated from No. 26, No. 4, or No. 22 gauge [nominal 0.018, 0.022, or 0.0273 inch (nominal 0.457, 0.559, or 0..69 mm), respectively, base-metal thickness] carbon steel conforming to ASTM A653 SS Grade 33 with a Class G90 galvanized coating or ASTM A792 SS Grade 33 with a Class AZ-50 galvalume coating. The panel facings are available with various finishes, such as an epoxy primer finish only, or with PVDF, SMP, Polyester, and Plastisol applied over an epoxy primer. The finishes have a Class A flame-spread classification and a smoke density not exceeding 450 in accordance with Section 803.1 of the IBC. The exterior top facing is a flat smooth profile. The bottom interior facing is Mesa profiled. Figure 1 of this report shows the panel profile and thicknesses.

**4.4 Fasteners:** The clip fasteners used in the panel joint to attach the panels to steel supports shall be <sup>1</sup>/<sub>4</sub>-14, <sup>1</sup>/<sub>4</sub>-20, <sup>1</sup>/<sub>4</sub>-28 DB Fasteners or ITW Buildex Self-Drilling Fasteners with #3- or #5-point drill tips. The WC-01 concealed clips are fabricated from No. 16 gauge [0.0598-inch (1.52 mm)] thick



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galvanized steel and have three  $^{5/_{16}}$ -inch (7.9 mm) diameter predrilled holes.

The through fasteners used to attach the panels to steel supports with RP-01 Roof Deck Plate (TRUFAST Metal Seam Plate) shall be TRUFAST #12 Square Drive Purlin Roofing Fasteners. The fasteners used to stitch the side-laps shall be TRUFAST #14 Phillips Drive HD Roofing Fasteners. These fasteners and metal seam plates shall comply with a certification issued by FM Approvals.

**4.5 Sealant:** Non-skinning butyl sealant shall be optional for panel joints and trim. Sealants shall conform to AAMA Voluntary Specification and Test Methods for Non-drying Sealants (AAMA 809.2-92). The sealant shall be applied to clean and dry surfaces at temperatures ranging from 40°F to 120°F (5°C to 49°C).

**4.6 Panel Supports:** OneDek<sup>®</sup> RD1/RD1-M roof deck panel supports shall have a minimum No. 16 gauge [minimum 0.0568 inch (1.44 mm) base metal thickness] and have minimum yield strength of 50 ksi (345 MPa). Roof deck panel supports shall be designed to transfer diaphragm shear loads and are beyond the scope of this report.

## **5.0 IDENTIFICATION**

Each panel is identified by a label indicating the name of the manufacturer (All Weather Insulated Panels); Each panel bundle is identified by a packing list indicating the product name and type; facing gauge; the name of the inspection agency (Columbia Research & Testing); and evaluation report number (ER-529).

Sealants shall be identified with the name of the sealant manufacturer; the product name and type; and the sealant expiration date. A die-stamp label may also substitute for the label. Either IAPMO UES Mark of Conformity also may be used as shown below:



## 6.0 SUBSTANTIATING DATA

**6.1** Data in accordance with the ICC-ES Acceptance Criteria for Sandwich Panels (AC04), Approved June 2019.

**6.2** Data in accordance with ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12), Approved June 2015, editorially revised October 2017.

**6.3** Data in accordance with IAPMO Evaluation Criteria for Steel Composite, Non-Composite and Roof Deck Construction (EC 007), approved April 2019 Revised June 2020.

**6.4** Reports of tests in conformance with ASTM E72 and AISI S907.

6.5 Reports of tests in conformance with ASTM E108.

6.6 Reports of tests in conformance with ASTM E84.

**6.7** Test reports are from laboratories in compliance with ISO/IEC 17025.

#### 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. The AWIP Foam Core Panels are produced at the location noted in Section 2.6 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.



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# **TABLE 1. Nominal Diaphragm Shear Strengths**

OneDek® RD1/RD1-M Roof Deck Panel	_		
Panel thickness = 2", 2.5", 3", 4", 5", 6", 8"	Shear	ASD	LRFD
Support fastening: #12-28 DP4 Fasteners, 8" on center across 40" panel width	Design	$\Omega_{ m df}$	<b>\$</b> df
Support fastening at side joint (where No. 22 gauge panels are required for the loading conditions, optional for other installations): 1/4-14 DP3 or DP5 Fasteners, (2) per WC-01 clip at side joint Side-lap fastening: #14-14 x 1 1/2" DP2 Fasteners, 6" or 12" on center along length of panel joint	Seismic	2.30	0.70
Support thickness: No. 16 gauge - 3/16-inch-thick steel	Wind	2.00	0.80

			Sida-lan	Nominal (Unfactored) Shear Strength, Snf, plf							Shear
Panel Gauge	Fastening System	Fastener Layout	Stitch Along Span		Stiffness (kip/in)						
	-	_		5	5.5	6	6.5	7	7.5	8	G'
No. 26 GA ext (0.018") No. 26 GA int (0.017")	40/5-12	40/5	12" o/c	844	823	802	781	759	738	717	28.0
No. 26 GA ext (0.018") No. 24 GA int (0.022")	40/5-12	40/5	12" o/c	856	851	845	840	835	829	824	39.5
No. 22 GA ext 0.0273") No. 22 GA int 0.0273")	40/7-6	40/7	6" o/c	1903	1861	1819	1777	1734	1692	1650	84.5

Notes:

 $\label{eq:alpha} \begin{array}{ll} \mbox{Safety factors or resistance factors shall be applied to the tabulated nominal shear strength.} \\ \mbox{ASD Available Strength (Allowable Service Applied Load)} <= S_{nf'} \Omega_{df} \end{array}$ 

LRFD Available Strength (Factored Applied Load)  $\langle = \phi_{df} S_{nf}$ 

2. The diaphragm shear spans shown are based on shear load testing per AISI S907.

3. White single-ply roofing membrane or single-skin roof panels shall be installed for weatherproofing.

4. Thermal effects due to temperature differentials have not been considered.

5. The structural capacity of steel supports has not been considered and shall be justified to the building official.

6. Table 2 of this report lists allowable gravity and wind uplift loads.

7. Consult your AWIP representative for project-specific requirements.

8. Panel attachment at rake edge or any perimeter edge, including cutouts, parallel to the length of the panels shall be fastened with TRUFAST #12 Square Drive Purlin Roofing Fasteners with RP-01 Roof Deck Plates (TRUFAST Metal Seam Plates) at the same spacing used at the panel side lap.

9. All panel ends with straight horizontal cuts or skewed cuts shall be fastened with TRUFAST #12 Square Drive Purlin Roofing Fasteners with RP-01 Roof Deck Plates (TRUFAST Metal Seam Plates) and, if necessary, 1/4-14 DP3 or DP5 Fasteners, (2) per WC-01 clip at side joint at the same spacing and frequency as the design fastening system.

10. 40/5-12 and 40/7-6 designate the panel width, the number of fasteners per panel at supports, and the side-lap spacing. Figures 2 and 3 of this report illustrate the panel fastening.



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# TABLE 2. Transverse (Out-of-Plane) Strengths

OneDek® RD1/RD1-M Roof Deck Panel

Panel thickness = 2" (R16), 2.5" (R20), 3" (R24), 4" (R32), 5" (R41), 6" (R49)

Support fastening: #12-28 DP4 Fasteners, 8" on center across 40" panel width

Support fastening at side joint (if necessary): 1/4-14 DP3 or DP5 Fasteners, (2) per WC-01 clip at side joint

Side-lap fastening: #14-14 x 1 1/2" DP2 Fasteners, 6" or 12" on center along length of panel joint

Support thickness: No. 16 gauge - 3/16-inch-thick steel

Panal Caugo	Fastening	Fastener	Side-lap Stitch	Design Method	Wind Uplift/Connection Strength, P, psf (Notes below apply)							
I allel Gauge	System	Layout	Along		Span (ft)							
			Span		5	5.5	6	6.5	7	7.5	8	
No. 26 GA ext (0.018") – No. 26 GA int (0.017")	40/5-12	40/5	12" o/c		80	73	66	61	56	53	49	
No. 26 GA ext (0.018") – No. 24 GA int (0.022")	40/5-12	40/5	12" o/c	ASD	80	73	66	61	56	53	49	
No. 22 GA ext (0.0273") – No. 22 GA int (0.0273")	40/7-6	40/7	6" o/c		111	101	92	84	78	73	68	
No. 26 GA ext (0.018") – No. 26 GA int (0.017")	40/5-12	40/5	12" o/c		120	109	99	91	84	79	73	
No. 26 GA ext (0.018") – No. 24 GA int (0.022")	40/5-12	40/5	12" o/c	LRFD	120	109	99	91	84	79	73	
No. 22 GA ext (0.0273") – No. 22 GA int (0.0273")	40/7-6	40/7	6" o/c		166	151	138	126	117	109	102	

Panel	Min. Panel Thickness	Panel Weight (PSF) Desią Meth	Design	Panel Out-of-Plane Bending Strength, P, psf (Notes below apply)									
Thickness			Method	Method Span (ft)									
			ĺ	5	5.5	6	6.5	7	7.5	8			
2"		2.22	ASD	41	37	33	30	27	24	22			
2.5"		2.34		51	46	42	38	35	32	30			
3"	No. 26 GA ext (0.018") – No. 26 GA int (0.017")	2.41		60	54	49	45	42	39	36			
4"		2.62		78	70	64	58	54	50	46			
5"		2.82		93	84	76	70	64	60	55			
6"		2.98		106	95	87	79	73	68	63			
2"		2.22	LRFD	65	59	52	48	43	38	35			
2.5"	No. 26 GA ext (0.018") – No. 26 GA int (0.017")	2.34		81	73	67	60	56	51	48			
3"		2.41		96	86	78	72	67	62	57			
4"		2.62		124	112	102	92	86	80	73			
5"		2.82		148	134	121	112	102	96	88			
6"		2.98		169	152	139	126	116	108	100			

Notes to Table 2 on next page.



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Notes to Table 2:

 Design safety factors or resistance factors have been applied to loads for wind uplift and bending. ASD Available Strength (Allowable Service Applied Load) ≤ P

 $\Omega_{\text{buckling}}$  = 2.50,  $\Omega_{\text{shear}}$  = 3.00,  $\Omega_{\text{fastening}}$  = 3.00

LRFD Available Strength (Ultimate Factored Applied Load)  $\leq P$ 

 $\phi_{\text{buckling}} = 0.64, \quad \phi_{\text{shear}} = 0.53, \quad \phi_{\text{fastening}} = 0.50$ 

- 2. The lowest allowable load between wind uplift/connection strength and out-of-plane bending strength shall be used to determine maximum span.
- 3. Spans shown are based on transverse load testing per ASTM E72 and strength of fastening systems.
- 4. Snow load design has not been taken into consideration. Further information about snow load analysis is available from AWIP
- 5. Deflection Limit = L/240
- 6. White single-ply roofing membrane or architectural single-skin roof panels shall be installed as the weather resistive barrier.
- 7. Thermal effect due to temperature differentials have not been considered.
- 8. Structural capacity of steel supports has not been considered and requires approval of the building official.
- 9. Further information about project specific requirements is available from AWIP.
- 10. 40/5-12 and 40/7-6 designate the panel width, the number of fasteners per panel at supports, and the side-lap spacing. Figures 2 and 3 of this report illustrate the panel fastening.

## FIGURE 1. Panel Profile and Thicknesses



RD1 - ROOF DECK EXTERIOR SIDE: 26 GA/24 GA/22 GA; FLAT; SMOOTH INTERIOR SIDE : 26 GA/24 GA/ 22 GA; MESA; EMBOSSED

AVAILABLE THICKNESSES: 2", 2.5", 3", 4", 5", 6"









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# FIGURE 3. OneDek<sup>®</sup> RD1/RD1-M Panel 40/7-6 Fastening System





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# TABLE 3. DIAPHRAGM SHEAR WEB DEFLECTION EQUATIONS

r – Concentrated load (IDS) dave = Average diaphragm shear (Ibs/ft)								

- w = Uniform load (lbs/ft)
- $\Delta_w$  = Web deflection (in.)

Nur



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# FLORIDA SUPPLEMENT

ALL WEATHER INSULATED PANELS 929 Aldridge Road Vacaville, CA 95688 <u>www.awipanels.com</u> bng@awipanels.com

# AWIP FOAM CORE PANELS (ONEDEK® RD1/RD1-M ROOF DECK PANEL)

**CSI Sections:** 

05 31 00 Steel Decking 05 11 23 Steel Roof Decking 07 40 00 Roofing and Siding Panels

## **1.0 RECOGNITION**

All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels recognized in ER-529 and this supplement have been evaluated for use as roof systems to resist the code-appropriate in-plane and out-of-plane loads. The structural performance and fire resistance properties of the AWIP Foam Core Panels comply with the intent of the provisions of the following codes and regulations:

• 2020 Florida Building Code, Building (FBC)

## 2.0 LIMITATIONS

Use of AWIP Foam Core Panels described in ER-529 and this supplement is subject to the following limitations:

**2.1** The design and installation of the OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels shall be in accordance with the provisions for compliance with the 2018 International Building Code as noted in ER-529.

**2.2** Load combinations shall be in accordance with Sections 1605.2 or 1605.3 of the FBC, Building as applicable.

**2.3** Design loads shall be in accordance with Chapter 1609 of the FBC, Building as applicable.

**2.4** Use of the AWIP Foam Core Panels for compliance with the high-velocity hurricane zone provisions of the FBC, Building has not been evaluated, and is outside the scope of this evaluation report supplement.

**2.5** For products falling under Section (5)(d) of Florida Rule 61G20-3.008, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission (or the building official when the report holder does not possess an approval by the Commission), to provide oversight and determine that the products are being manufactured as described in this evaluation report to establish continual product performance.

2.6 This supplement expires concurrently with ER-529.

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# **CALIFORNIA SUPPLEMENT**

ALL WEATHER INSULATED PANELS 929 Aldridge Road Vacaville, CA 95688 www.awipanels.com bng@awipanels.com

## **AWIP FOAM CORE PANELS (ONEDEK® RD1/RD1-M ROOF DECK PANEL)**

**CSI Sections:** 

05 31 00 Steel Decking 05 11 23 Steel Roof Decking 07 40 00 Roofing and Siding Panels

## **1.0 RECOGNITION**

All Weather Insulated Panels (AWIP) Foam Core OneDek® RD1/RD1-M Roof Deck Panels described in ER-0529 have been evaluated for use as exterior roof systems to resist the code-appropriate in-plane and out-of-plane loads. The structural performance and fire resistance properties of the AWIP Foam Core Panels comply with the intent of the provisions of the following codes and regulations:

• 2019 California Building Code<sup>®</sup> (CBC)

## 2.0 ADDITIONAL REQUIREMENTS

2.1 Roof panels may be used in "new buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area designated by the enforcing agency constructed after the application date stipulated in CBC Section 701A.3.1 shall comply with the provisions" in accordance with Sections 701A.3 and 705A of the CBC and with the 2018 IBC as presented in ER-550.

2.2 Pertaining to structures under the jurisdiction of DSA and HCAI (formerly OSHPD) designs for the transfer of anchorage forces into the diaphragm shall comply with CBC Section 1613A.5.1 of the 2019 CBC.

2.3 This supplement expires concurrently with ER-529.

## 3.0 SUBSTANTIATING DATA

Data submitted in conformance with the ICC-ES Acceptance Criteria for Sandwich Panels (AC04), Approved June 2019. Test reports are from laboratories in compliance with ISO/IEC 17025.

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# CITY OF LOS ANGELES SUPPLEMENT

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## AWIP FOAM CORE PANELS (ONEDEK<sup>®</sup> RD1/RD1-M ROOF DECK PANEL)

**CSI Sections:** 

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#### **1.0 RECOGNITION**

All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels recognized in this report have been evaluated for use as roof systems to resist the codeappropriate in-plane and out-of-plane loads. The structural performance and fire resistance properties of the AWIP Foam Core Panels comply with the intent of the provisions of the following codes and regulations:

• 2020 City of Los Angeles Building Code (LABC)

## 2.0 LIMITATIONS

Use of All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels described in this report supplement is subject to the following limitations:

**2.1** All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels shall be installed and identified in accordance with report ER-529, following the provisions for the 2018 IBC and 2019 CBC, and the manufacturer's published installation instructions, a copy of which shall be available at the job site. Where conflicts occur, the more restrictive shall govern.

**2.2** Prior to installation, calculations and details demonstrating compliance with this evaluation report supplement and the 2020 Los Angeles Building Code shall be submitted to the structural plan check section for review and approval. The calculations and details shall be prepared, stamped, and signed by a California registered design professional.

**2.3** The design, installation, and inspection of All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels shall be in accordance with LABC Chapters 15, 16, and 17 as applicable, due to local amendments to these chapters.

**2.4** Use of the All Weather Insulated Panels (AWIP) Foam Core OneDek<sup>®</sup> RD1/RD1-M Roof Deck Panels for repair, retrofit and new construction of concrete or masonry wall buildings with cold-formed steel framed flexible diaphragms or wood framed flexible diaphragm is outside the scope of this supplement.

2.5 This supplement expires concurrently with ER-529.