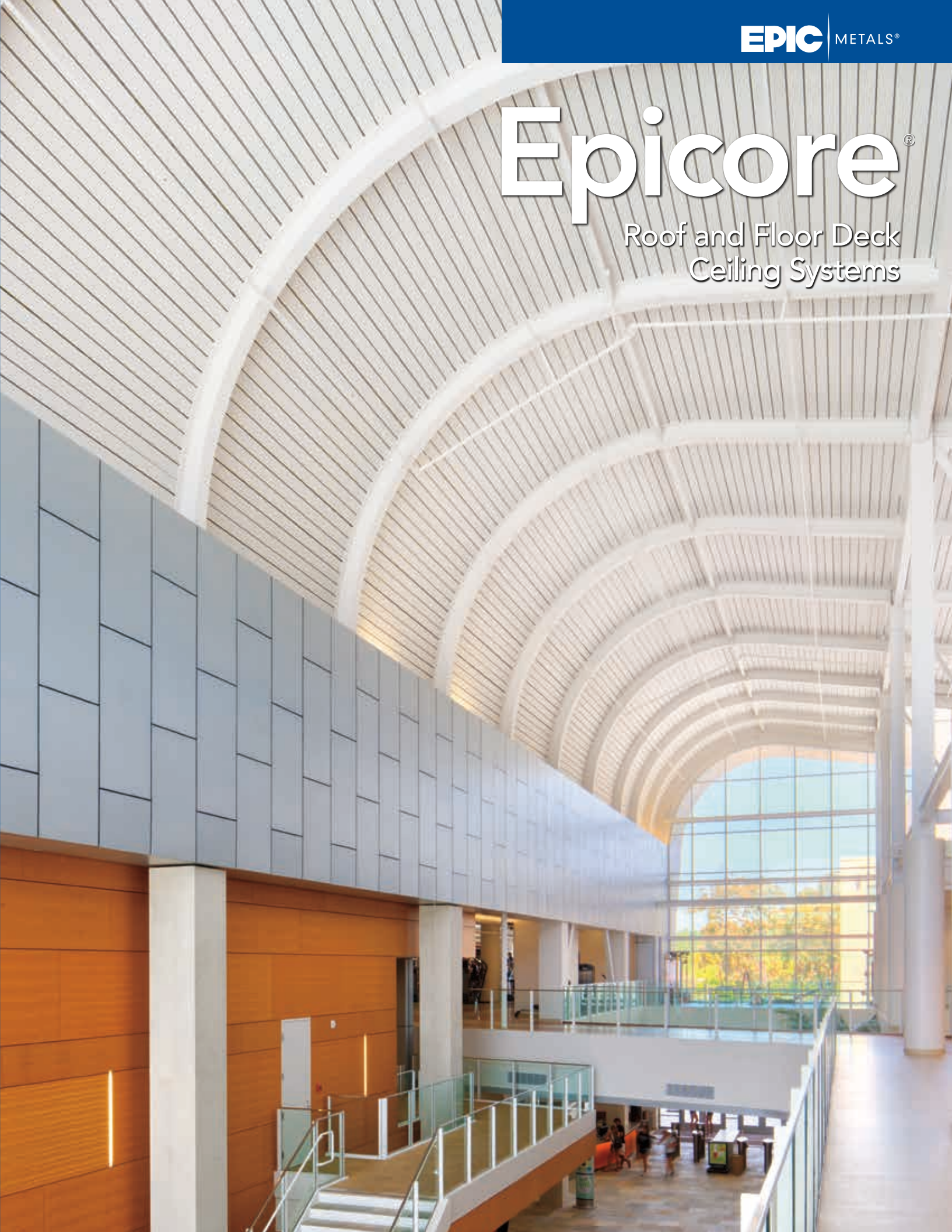


Epicore®

Roof and Floor Deck
Ceiling Systems



Epicore®

Roof & Floor Deck Ceiling System

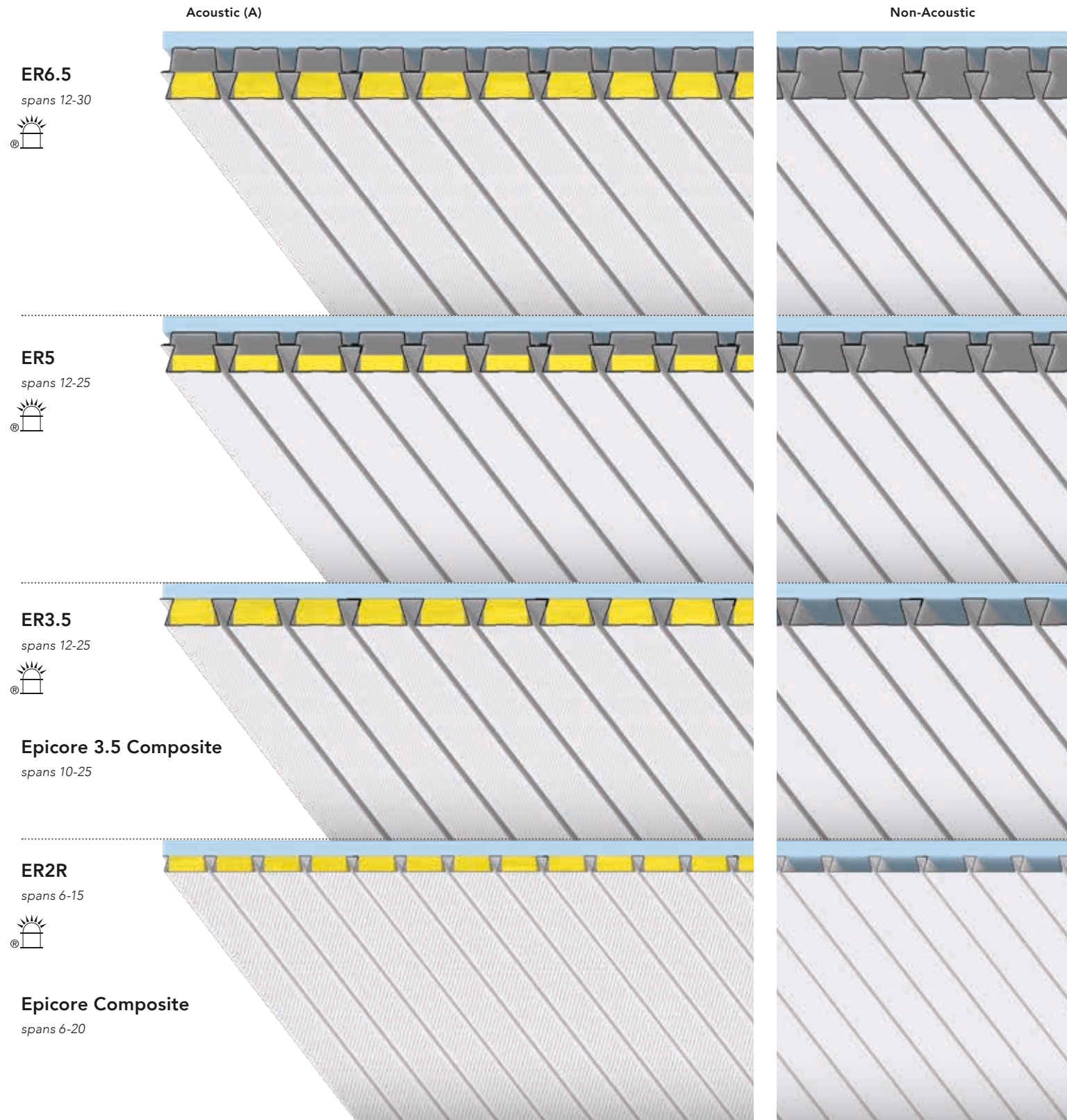
EPIC Metals introduced the original Epicore Roof and Floor Deck Ceiling System in 1968 to offer a system with architectural appeal.

EPIC's original 2" deep Epicore System has been developed over the decades to include four profile depths to increase spans up to 30'. The linear plank ceiling appearance mixes a traditional look with the contemporary aesthetic of an exposed structure.

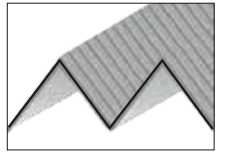
Epicore panel depths are available in 2", 3 1/2", 5" and 6 1/2" to offer span capabilities from 6' to 30', depending on the project requirements. Additionally, built in features and benefits have been design engineered into the Epicore Systems to increase system performance including; superior acoustics management, air movement control with air dams, access panels for utilities, a permanent or temporary hanging system, and a specialized coating for high humidity environments with Natacoat® (see pages 10-11).



Skydeck® option: ER6.5, ER5, ER3.5 and ER2R may be specified to accommodate Solatube® daylighting systems to bring natural light into any design (see page 11).



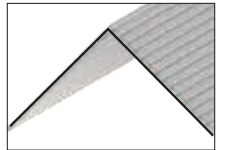
Design Examples:



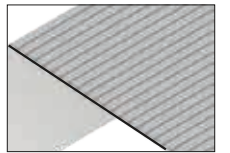
Cathedral Folded Plate



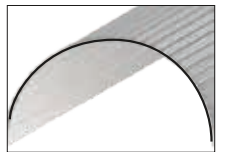
Gambrel Folded Plate



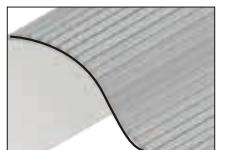
Cathedral



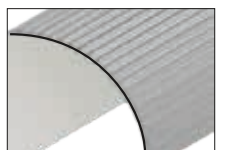
Half Cathedral



Barrel Vaulted

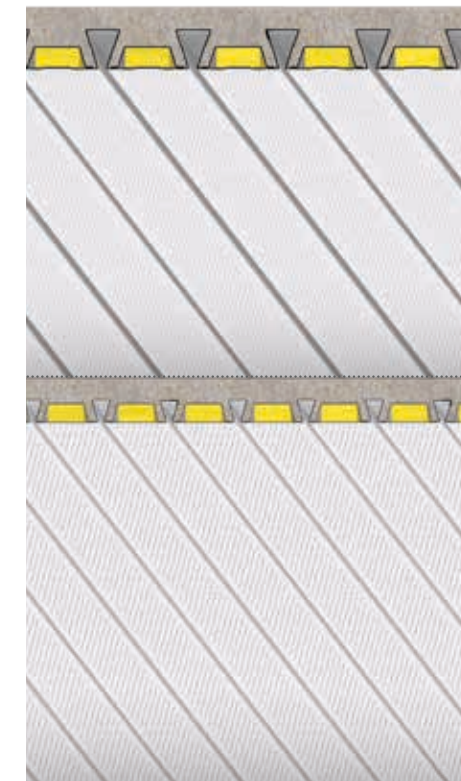


Serpentine



Half Vaulted

Composite Acoustic (pgs.14-23)



Epicore® Roof Deck Ceiling Systems

Epicore profiles, when painted with a light color, aid in the reflection of natural light when designed in buildings with clerestory windows. These same principles work well with indirect up-lighting. Acoustical Epicore profiles reduce the noise levels across all sound frequency ranges. The noise reduction coefficients of each profile can be found in the technical tables beginning on page 6. The Epicore rib shape enables the roof deck ceiling to provide a hanging system. Epicore hangers placed in the ribs can be used for hanging signage, speakers, lighting, banners and projection screens. Hangers can be purchased and installed as they are needed, and can be relocated, or removed and reused, at any time during the life of the building (see page 11).

U.L. Approved Pipe Hangers for Fire Protection Systems

Use Ankore and Ankore Lock with ER6.5(A), ER5(A) and ER3.5(A) or $\frac{3}{8}$ " Wedge Bolt and Wedge Lock with ER2R(A). Install per EPIC detail sheet EHI7. Connections and parts have been tested by U.L. under standard #203, and in accordance with NFPA 13.

Diaphragm Resistance

Another benefit of specifying ER6.5(A), ER5(A), ER3.5(A) and ER2R(A) is their inherent ability to resist lateral forces caused by wind or seismic occurrences. The Epicore family of products, when properly designed and attached, can provide an effective and efficient diaphragm bracing system for any structure. Contact EPIC Metals for diaphragm tables.

Epicore Wedge Bolt and Ankore Approval

ICC-ES Approval: Report #ESR-2255 (ER2R(A), ER3.5(A) and Epicore (A))

Factory Mutual Rating Approval

FM Listed per Approval Standard 4451 (ER2R(A) and ER3.5(A))

International Code Council Evaluation Service Approval

ICC-ES Approval: Report #ESR-2047 (ER2R(A), ER3.5(A) and Epicore (A))

ER6.5A*

ER5A**

ER3.5A

ER2RA

*U.S. Patent Number D511,580
**U.S. Patent Number
D608,464 and D622,417
Canadian Patent Number 131,856

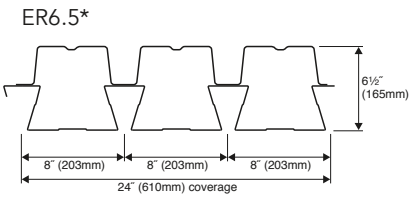
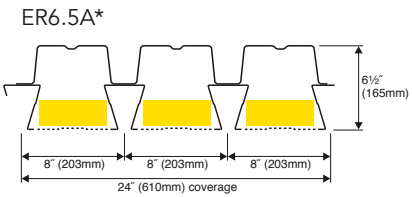


Rowan County Middle School, Morehead, Kentucky
Epicore ER6.5A

Epicore® ER6.5 Technical Tables

SPANS
12'-30'

ACOUSTIC (ER6.5A) NON-ACOUSTIC (ER6.5)



*U.S. Patent Number D511,580

Safe Load Hanging Capacities

Deck Type	Hanger Type	Gage	Design Thickness		Allowable Static Loads (lbs.)
			(in.)	(mm)	
ER6.5(A)	3/8" Ankore	20	0.0358	0.91	62
		18	0.0474	1.20	91
		16	0.0600	1.52	126

- NOTES: 1. Ends of deck sheets must be fastened to supports at every cell.
 2. Deck shall be designed to carry these additional hanging loads.
 3. Do not place hangers at sidelaps of deck.
 4. Do not overtighten nut on hanger rod as this will spread rib and lessen capacity. (Finger tight plus 1/2 turn.)

WARNING: FAILURE TO ADHERE TO THE ABOVE NOTES MAY CAUSE HANGERS TO PULL OUT OF DECK RIBS!

ER6.5A & ER6.5 Section Properties (per foot of width)

Deck Type	Gage	Wt. (psf)	I _D (in ⁴)	S _p (in ³)	Allowable Reaction (plf)*
ER6.5A	20 / 20	5.6	8.52	2.05	809
	18 / 18	7.5	11.73	3.08	1355
	16 / 16	9.4	15.09	4.27	2082
ER6.5	20 / 20	5.8	9.06	2.11	809
	18 / 18	7.7	12.48	3.18	1355
	16 / 16	9.7	16.05	4.40	2082

*Minimum end support bearing length (See note 5 below):
End = 3"

ER6.5A Noise Reduction Coefficients

Deck Type	Absorption Coefficients						NRC
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
ER6.5A	0.48	1.22	1.07	0.95	0.92	0.76	1.05

In accordance with ASTM C423 and E795. Consult EPIC Metals Corporation for other test results and individual reports.

The NRC is the average of the absorption coefficients at 250, 500, 1000, and 2000 Hz., rounded off to the nearest 0.05.

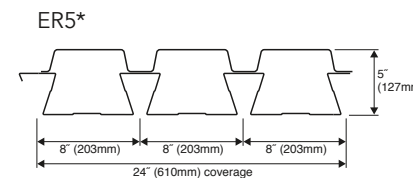
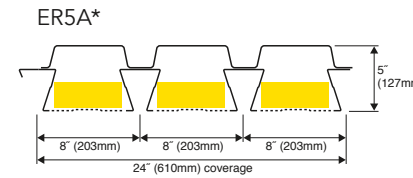
ER6.5(A) Maximum Sprinkler Pipe Diameter

Deck Type	Hanger Type	Gage	Diameter (in.)
ER6.5(A)	3/8" Ankore	20, 18, 16	4

Epicore® ER5 Technical Tables

SPANS
12'-25'

ACOUSTIC (ER5A) NON-ACOUSTIC (ER5)



*U.S. Patent Number D608,464 and D622,417
Canadian Patent Number 131,856

Safe Load Hanging Capacities

Deck Type	Hanger Type	Gage	Design Thickness		Allowable Static Loads (lbs.)
			(in.)	(mm)	
ER5(A)	3/8" Ankore	20	0.0358	0.91	62
		18	0.0474	1.20	91
		16	0.0600	1.52	126

- NOTES: 1. Ends of deck sheets must be fastened to supports at every cell.
 2. Deck shall be designed to carry these additional hanging loads.
 3. Do not place hangers at sidelaps of deck.
 4. Do not overtighten nut on hanger rod as this will spread rib and lessen capacity. (Finger tight plus 1/2 turn.)

WARNING: FAILURE TO ADHERE TO THE ABOVE NOTES MAY CAUSE HANGERS TO PULL OUT OF DECK RIBS!

ER5A & ER5 Section Properties (per foot of width)

Deck Type	Gage	Wt. (psf)	I _D (in ⁴)	S _p (in ³)	Allowable Reaction (plf)*
ER5A	20 / 20	5.0	4.56	1.39	809
	18 / 18	6.7	6.27	2.03	1355
	16 / 16	8.4	8.23	2.75	2082
ER5	20 / 20	5.2	4.85	1.43	809
	18 / 18	6.9	6.67	2.09	1355
	16 / 16	8.7	8.75	2.84	2082

*Minimum end support bearing length (See note 5 below):
End = 3"

ER5A Noise Reduction Coefficients

Deck Type	Absorption Coefficients						NRC
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
ER5A	0.29	1.15	1.08	0.94	0.91	0.73	1.00

In accordance with ASTM C423 and E795. Consult EPIC Metals Corporation for other test results and individual reports.

The NRC is the average of the absorption coefficients at 250, 500, 1000, and 2000 Hz., rounded off to the nearest 0.05.

ER5(A) Maximum Sprinkler Pipe Diameter

Deck Type	Hanger Type	Gage	Diameter (in.)
ER5(A)	3/8" Ankore	20, 18, 16	4

ER6.5A & ER6.5 Load Table: Uniform Total Service Load (Dead and Live), PSF

Deck Type	No. spans	Gage	Span Length Center to Center of Supports (ft.)																		
			12	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
ER6.5A	1	20 / 20	135 / 324	116 / 204	101 / 137	95 / 114	90 / 96	85 / 82	81 / 70	74 / 58	68 / 48	62 / 40	57 / 34	52 / 29	-	-	-	-	-	-	
		18 / 18	266 / 466	194 / 281	169 / 188	159 / 157	151 / 132	137 / 112	123 / 96	112 / 79	102 / 66	93 / 55	86 / 46	79 / 39	73 / 34	68 / 29	-	-	-	-	-
		16 / 16	347 / 500	297 / 361	260 / 242	236 / 202	211 / 170	189 / 144	171 / 124	155 / 102	141 / 85	129 / 71	119 / 60	109 / 51	101 / 43	94 / 37	87 / 32	81 / 28	-	-	-
ER6.5	1	20 / 20	135 / 344	116 / 217	101 / 145	95 / 121	90 / 102	85 / 87	81 / 74	77 / 61	70 / 51	64 / 43	59 / 36	54 / 30	50 / 26	-	-	-	-	-	
		18 / 18	226 / 474	194 / 299	169 / 200	159 / 167	151 / 141	141 / 119	127 / 102	115 / 84	105 / 70	96 / 59	88 / 49	81 / 42	75 / 36	70 / 31	65 / 27	-	-	-	
		16 / 16	347 / 500	297 / 384	260 / 257	244 / 215	217 / 181	195 / 154	176 / 132	160 / 108	145 / 90	133 / 75	122 / 64	113 / 54	104 / 46	97 / 40	90 / 34	84 / 30	78 / 26	-	

If higher loads or longer spans are required, contact Epic Metals Corporation.

- Notes: 1. Loads are based on ASD Design.
 2. Uniform load values listed on the left side of the box, $\frac{100}{50}$, are governed by stress or web crippling and the values listed on the right side, $\frac{100}{50}$, are governed by deflection.
 3. The deflection criteria used for generating the tables above were L/240 or 1" maximum. The Engineer of Record shall calculate the allowable uniform load if a different deflection criteria is required.
 4. Stress governed values assume a maximum allowable stress of 24 ksi.
 5. Minimum end support bearing length is shown above. If a shorter bearing length is used, check safe reaction table on page 13.

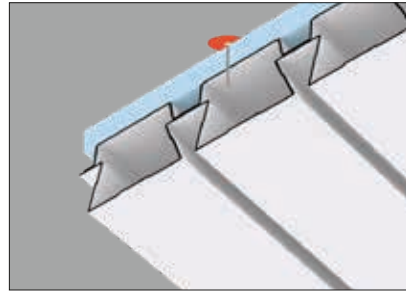
ER5A & ER5 Load Table: Uniform Total Service Load (Dead and Live), PSF

Deck Type	No. spans	Gage	Span Length Center to Center of Supports (ft.)												
			12	14	16	17	18	19	20	21	22	23	24	25	
ER5A	1	20 / 20	135 / 173	113 / 109	87 / 73	77 / 61	69 / 51	62 / 44	56 / 37	50 / 31	46 / 26	42 / 21	-	-	
		18 / 18	226 / 238	166 / 150	127 / 101	112 / 84	100 / 71	90 / 60	81 / 51	74 / 42	67 / 35	61 / 29	56 / 25	52 / 21	
		16 / 16	306 / 313	224 / 197	172 / 132	152 / 110	136 / 93	122 / 79	110 / 68	100 / 56	91 / 46	83 / 39	76 / 33	70 / 28	
ER5	1	20 / 20	135 / 184	116 / 116	89 / 78	79 / 65	71 / 55	63 / 46	57 / 40	52 / 33	47 / 27	43 / 23	-	-	
		18 / 18	226 / 253	171 / 160	131 / 107	116 / 89	103 / 75	93 / 64	84 / 55	76 / 45	69 / 37	63 / 31	58 / 26	54 / 24	
		16 / 16	316 / 332	232 / 209	178 / 140	157 / 117	140 / 99	126 / 84	114 / 72	103 / 59	94 / 49	86 / 41	79 / 35	73 / 29	

If higher loads or longer spans are required, contact Epic Metals Corporation.

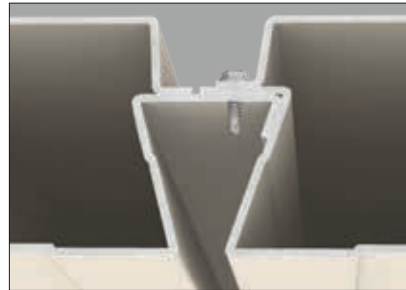
- Notes: 1. Loads are based on ASD Design.
 2. Uniform load values listed on the left side of the box, $\frac{100}{50}$, are governed by stress or web crippling and the values listed on the right side, $\frac{100}{50}$, are governed by deflection.
 3. The deflection criteria used for generating the tables above were L/240 or 1" maximum. The Engineer of Record shall calculate the allowable uniform load if a different deflection criteria is required.
 4. Stress governed values assume a maximum allowable stress of 24 ksi.
 5. Minimum end support bearing length is shown above. If a shorter bearing length is used, check safe reaction table on page 13.

Standard Features with Epicore®



Conceals Fasteners

All of the Epicore panels conceal the roofing system fasteners.



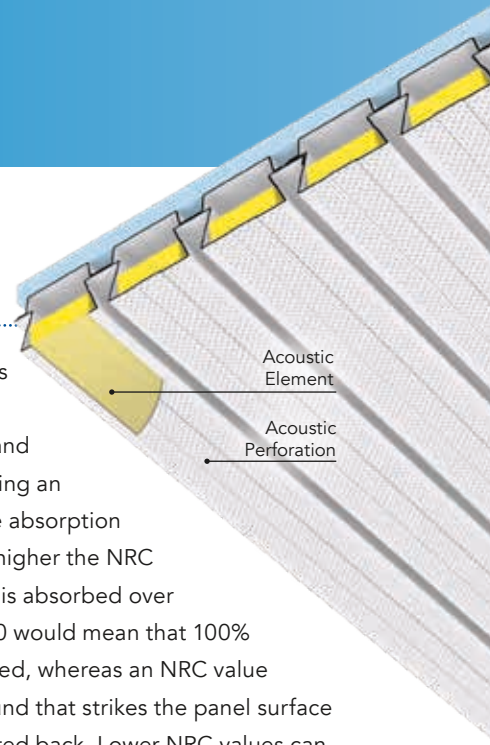
Sidelap

The dovetail ribs of the sidelaps conceal the fasteners.

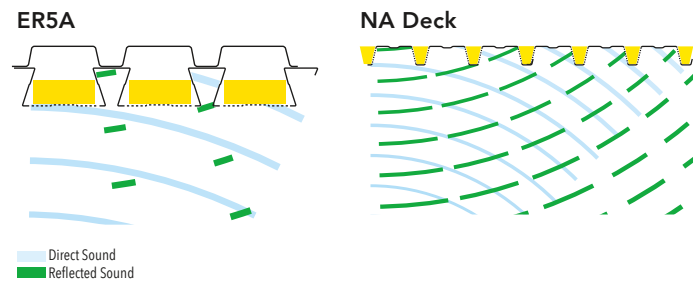
Epicore Options

Epicore's Superior Acoustic Properties

Acoustic roof and floor deck ceiling systems are specified as an economical means of reducing noise levels in building interiors, and offer an attractive appearance without adding an additional ceiling. NRC values are the noise absorption averages over a range of frequencies. The higher the NRC value, the greater the amount of noise that is absorbed over the frequency ranges. An NRC value of 1.00 would mean that 100% of the noise that strikes the panel is absorbed, whereas an NRC value of .60 would mean that only 60% of the sound that strikes the panel surface is absorbed and 40% of the sound is reflected back. Lower NRC values can contribute to creating reverberation (an echo effect) that makes speech less intelligible and can create a sense of noise amplification. Many building factors such as room size, layout, shape, materials specified, windows, the number of occupants, and noise sources also affect noise levels. Therefore, EPIC Metals recommends that these factors be considered prior to the preparation of acoustical design specifications. Displayed below, the Epicore profiles acoustical perforations are in the large flat area, which are parallel to the floor. This results in significantly better sound absorbing qualities of the Epicore panels.



Sound Absorption Comparison



Natacoat®

Natoriums create a highly humid and corrosive interior environment for building materials. EPIC Natacoat is an innovative, specialized coating that has been applied to protect long span, acoustic roof and floor deck ceiling systems in such harsh settings for over 20 years.

Prior to panel fabrication, all surfaces of the galvanized steel are degreased and cleaned by a chemical conversion coating before applying a primer to increase bonding capabilities. Following the prime coat, the panels are fabricated and the Natacoat specialized coating is applied to the ceiling surface. Natacoat is a factory-applied, oven-baked polyamide epoxy. The finish coat is applied after installation. Contact EPIC for special paint specifications for natatoriums or other high humidity applications.

SkyDeck®

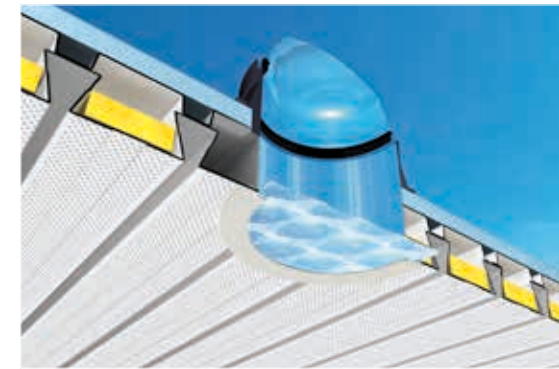


Natural light makes spaces appear larger and reveals true colors in the interior of buildings. In the past, to incorporate skylights with a long-span roof deck ceiling system required that the skylight be framed with structural steel, detracting from the open appearance of the system. Skydeck with the Solatube® Daylighting System captures ambient light as well as direct light, enabling it to provide exceptional lighting even on cloudy days. Lighting normally consumes approximately 40 percent of the energy used in commercial buildings according to the Electric Power Research Institute. Energy costs can be reduced in structures using Skydeck as a day-lighting technique. Skydeck can

be an important contributor to achieving Leadership in Energy and Environmental Design (LEED®) points.

EPIC Metals' Skydeck specified to accept Solatube® Daylighting System, transfers up to 500% more daylight than other tubular skylight systems with the brightest, cleanest, and whitest natural light possible. This advantage is particularly significant in low-angle light conditions, such as during the early morning and late afternoon, and in the winter months when the sun is low on the horizon. Skydeck has minimal heat loss or gain between the interior and exterior because the Solatubes work like a dual glazed window.

Solatube is a registered trademark owned by Solatube International Inc. LEED® is a trademark owned by the U.S. Green Building Council and is used with permission.

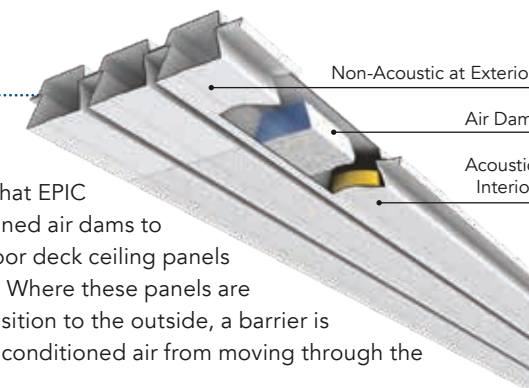


ER5RA with SkyDeck Option

U.S. Patent Number 6,813,864

Air Dams

EPIC Metals understands the importance of reducing energy loss in buildings. This is the reason that EPIC pioneered the use of specially designed air dams to prevent air movement in roof and floor deck ceiling panels that cantilever outside of a building. Where these panels are partially inside the building and transition to the outside, a barrier is necessary to prevent the exterior unconditioned air from moving through the conditioned spaces.



EPIC Metals specially designed air dams to help reduce the building energy usage when roof or floor deck ceiling panels extend from the interior of a building to the exterior of the building.

Access Panel

With ER6.5(A), ER5(A), ER3.5(A) and ER2R(A), it is possible to easily access utilities that have been located within the roof deck ceiling system. Access panels come in various sizes and configurations, are placed according to architectural drawings and are provided during the manufacturing process. The removable panels are fabricated to match the finish, size, and shape of the adjacent ceiling surface. The result is a clean, uninterrupted look while providing a simple and convenient access to hidden utilities. ER2R(A) access panels lack the clearance for sprinkler line but can accommodate other utilities.

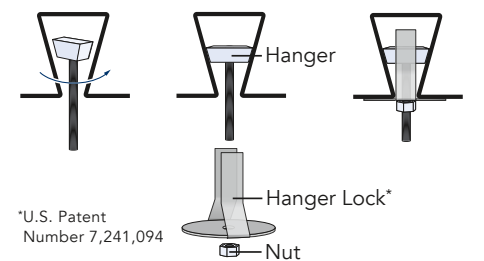
Windgard®

EPIC Metal's structural roof deck ceiling systems utilize acoustic elements to reduce interior noise and sound reverberation. Dislodged or missing acoustic elements can greatly reduce the system's effectiveness to control noise. Dislodging can occur during product transportation or installation in ER6.5A and ER5A.

EPIC Metals addresses this issue with Windgard, a system used in ER6.5A and ER5A to ensure that acoustic insulation stays in place from panel fabrication to final installation. The EPIC Windgard system has been laboratory tested to maintain acoustic element positions at wind speeds up to 105 mph. Windgard ensures the acoustic properties are preserved, delivering expected noise reduction coefficients and effectiveness.

Hanging Feature

Insert the Epicore hanger with the head parallel to the Epicore deck. Rotate the hanger 90° and pull down to seat. After the hanger is seated, install the proper hanger lock and nut.



*U.S. Patent Number 7,241,094

Epicore® Roof Deck Ceiling Systems Specifications

NOTES: OMIT UNDERLINED AREAS FOR NON-ACOUSTIC APPLICATIONS.

For the additional specification language covering factory reinforced openings to accommodate SkyDeck® for Solatube® skylights, contact EPIC Metals.

PART 1: GENERAL

1.1 SUMMARY

The requirements of this specification section include all materials, equipment, and labor necessary to furnish and install an Acoustical Roof Deck System.

- A. The deck shall serve as an acoustical ceiling and a structural roof deck as indicated on the contract drawings.
- B. Acoustical Roof Deck shall provide an exposed bottom surface that is substantially flat. The narrow rib openings of the Acoustical Roof Deck panels shall provide the appearance of a linear ceiling. Fasteners for sidelaps and overlying roofing materials shall be concealed within the depth of the dovetail-shaped ribs.
- C. 6.5", 5" and 3.5" panels: Ankore hanging devices that are specially configured to fit into the dovetail-shaped ribs of the 6.5", 5" and 3.5" Acoustical Roof Deck panels shall be available. These hanging devices shall be utilized wherever any related work is suspended from 6.5", 5" and 3.5" Acoustical Roof Deck. Ankore hanging devices shall be furnished by the installer of the related work unless otherwise indicated.
2" panel: Wedge Nut hanging devices (supplied with Wedge Locks) that are specially configured to fit into the dovetail-shaped ribs of the Acoustical Roof Deck panels shall be available. These hanging devices shall be utilized wherever any related work is suspended from the Acoustical Roof Deck. Wedge Nut hanging devices and Wedge Locks shall be furnished by the installer of the related work unless otherwise indicated.

1.2 RELATED WORK

The following related work is not part of this specification section:

- A. Structural Steel: Supplementary framing.
- B. Roofing: Other than structural roof deck and accessories. Installation of acoustic elements.
- C. Painting: Preparation for and application of field painting.
- D. Mechanical: Attachments to the Acoustical Roof Deck.
- E. Electrical: Attachments to the Acoustical Roof Deck.

1.3 SUBMITTALS

Submit the following items in accordance with the conditions of the contract and appropriate specification sections:

- A. Product data for Acoustical Roof Deck and hanging devices including material types, dimensions, finishes, load capacities, and noise reduction coefficients.
- B. Erection drawings for Acoustical Roof Deck and related accessory items showing profiles and material thicknesses, layout, anchorage, and openings as dimensioned on the structural drawings.

1.4 REFERENCE STANDARDS

- A. Section Properties: Shall be computed in accordance with the *American Iron and Steel Institute (AISI) Specification for the Design of Cold-Formed Steel Structural Members.*
- B. Welding: Shall comply with applicable provisions of *American Welding Society (AWS) D1.3 Structural Welding Code—Sheet Steel.*
- C. Noise Reduction Coefficient: Shall be verified by the results of sound absorption tests conducted in accordance with ASTM C423 and E795. A minimum NRC of 1.05 shall be provided for 6.5" panel. A minimum NRC of 1.00 shall be provided for 5" and 3.5" panels. A minimum NRC of 0.95 shall be provided for 2" panel. Copies of the sound absorption test shall be submitted upon request.

1.5 QUALITY ASSURANCE

- A. Manufacturer shall have been regularly engaged in the production of an acoustical roof deck section with dovetail-shaped ribs and the specified assembly for a period of at least 10 years.

- B. 3.5" and 2" Acoustical Roof Deck shall have been tested and approved by Factory Mutual Research Corporation for use in Class 1 insulated steel deck roof construction without the use of dens-dek as a fire barrier. Acoustical Roof Deck shall be listed in the *FM Approval Guide*. All panels shall bear the appropriate FM approved label.
- C. 3.5" and 2" Acoustical Roof Deck shall be approved by the International Code Council Evaluation Service (ICC-ES) for use as a structural roof deck and shear diaphragm and have a valid ICC-ES evaluation report.

PART 2: PRODUCTS

2.1 MANUFACTURER

- A. In accordance with the requirements of this specification section, provide products manufactured by EPIC Metals, Rankin, PA.
- B. Substitutions: (Under Provisions of Division 01) Not permitted.

2.2 MATERIALS

- A. Acoustical Roof Deck panels shall be cold-formed from steel sheets conforming to ASTM-A-653, Grade 40, or equal, having a minimum yield strength of 40,000 psi.
- B. Before forming, the steel sheets shall have received a hot-dip protective coating of zinc conforming to ASTM A924, Class G60 or G90.
6.5" and 5" Primer Paint Option—The bottom ceiling surface of the panel shall be prime painted at the factory after forming and welding. Before painting, the galvanized steel shall be chemically cleaned and coated with a pretreatment followed by a coat of manufacturer's standard white prime paint and then oven-cured. Compatibility of field applied finish paint shall be the responsibility of the painting contractor.

3.5" and 2" Primer Paint Option—Prior to forming, galvanized steel shall be chemically cleaned and pre-treated followed by an oven-cured epoxy primer and a second coat of oven-cured polyester primer paint applied to both sides in the manufacturer's standard color of off-white. Compatibility of field applied finish paint with factory applied primer paint shall be the responsibility of the painting contractor.

3.5" and 2" Finish Paint Option—Prior to forming, galvanized steel shall be chemically cleaned and pre-treated followed by an oven-cured epoxy primer and a second coat of oven-cured polyester paint applied to both sides. After factory painting is complete, a plastic removable film shall be applied to the bottom surface of the panels to protect paint finish during manufacturing, shipping, and handling. The protective film is to be removed by the erector prior to installation.

Paint Option—For specialized painting systems that are recommended for Natatoriums and other high humidity applications, contact EPIC Metals.

- C. The minimum uncoated thickness of material supplied shall be within 5% of the design thickness.

2.3 FABRICATION

- A. The 6.5" deep Acoustical Roof Deck shall have continuous dovetail shaped ribs spaced 8" on center.
The 5" deep Acoustical Roof Deck shall have continuous dovetail shaped ribs spaced 8" on center.
The 3.5" deep Acoustical Roof Deck panels shall have continuous dovetail-shaped ribs spaced 8" on center.
The 2" deep Acoustical Roof Deck panels shall have continuous dovetail-shaped ribs spaced 6" on center.
- B. The design thickness and minimum section properties shall be indicated on the contract drawings.
- C. Acoustical Roof Deck panels shall have full depth positive registering sidelaps that can be fastened by welds or screws.
- D. Acoustical Roof Deck panels shall be fabricated with perforations. Perforated areas shall be located in the areas between the dovetail-shaped ribs.

2.4 ACCESSORIES

- A. Where panels continue from the interior of the building through to the exterior of the building (for example as a cantilever canopy): the panels will be perforated on the interior and not perforated on the exterior, air dams will be provided to block the movement of conditioned air from the interior of the building to the exterior.

- B. Wedge Bolt hanging devices (which include Wedge Locks) or Ankore hanging devices (which include Ankore Locks) shall be installable and relocatable along the length of the interior ribs of the Acoustical Roof Deck panels. Manufacturer's product data shall be consulted for minimum spacing, load capacities, and proper installation procedure of the Wedge Bolt or Ankore Hanging devices.
- C. Sump pans, ridge, valley, transition, and eave plates shall be provided as indicated by the manufacturer's standards.
- D. Manufacturer's standard profile closures shall be provided as indicated on the contract drawings.
- E. Acoustic elements shall be provided for installation above the perforations in the bottom flat area between the dovetail-shaped ribs. To facilitate field painting of the perforated surfaces, the sound absorbing elements shall be supported above the surface on corrosion resistant spacers. Sound absorbing elements and spacers shall be furnished under this specification section for installation by others for 3.5" and 2".
6.5" and 5" Acoustic sound-absorbing elements shall be factory installed. The acoustic elements will be supported above the bottom panel be either individual stand-offs or continuous mesh to avoid plugging the perforated holes when field painting.
- F. 6.5", 5", 3.5" and 2" Acoustical panels requiring access openings shall be shown on the structural or architectural drawings. Openings shall be shop-fabricated in the panel area between ribs, 8" wide for 6.5", 5" or 3.5" Acoustical panels and 6" wide for 2" Acoustical panels. Access covers shall match the finish and profile of the adjacent deck surface, including perforations.

PART 3: EXECUTION

3.1 GENERAL

Acoustical Roof Deck panels and accessories shall be installed in strict accordance with the manufacturer's approved erection drawings, installation instructions, the *Steel Deck Institute (SDI) Manual for Construction with Steel Deck*, and all applicable safety regulations.

3.2 BEFORE INSTALLATION

- A. The supporting frame and other work relating to the Acoustical Roof Deck shall be examined to determine if this work has been properly completed.
- B. All components of the Acoustical Roof Deck System shall be protected from significant damage during shipment and handling. If storage at the jobsite is required, bundles or packages of these materials shall be elevated above the ground, sloped to provide drainage, and protected from the elements with a ventilated waterproof covering.

3.3 INSTALLATION

- A. Bundles or packages of Acoustical Roof Deck System components shall be located on supporting members in such a manner that overloading of any individual members does not occur.
- B. Before being permanently fastened, Acoustical Roof Deck panels shall be placed with ends accurately aligned and adequately bearing on supporting members. Proper coverage of the Acoustical Roof Deck panels shall be maintained. Care must be taken by the erector to maintain uniform spacing of the bottom rib opening (equal to the openings in the profiled sheet) at the sidelaps. Consistent coverage shall be maintained so that panels located in adjacent bays will be properly aligned.
- C. Field cutting of the Acoustical Roof Deck panels shall be performed in a neat and precise manner. Only those openings shown on the structural drawings shall be cut. Other openings shall be approved by the structural engineer and cut by those requiring the opening.
- D. Acoustical Roof Deck panels shall be fastened to all supporting members with ¾" diameter puddle welds at a nominal spacing of 8" on center or less as indicated on the manufacturer's erection drawings.
- E. Mechanical fasteners may be substituted for puddle welds to permanently fasten Acoustical Roof Deck panels to supporting members. The mechanical fastener manufacturer shall provide documentation as to the equivalent load capacity and proper installation procedure for each type of fastener being used.
- F. Sidelaps of Acoustical Roof Deck panels shall be fastened by welds or screws at a spacing of 36" on center or less as indicated on the manufacturer's erection drawings. Sides of Acoustical Roof Deck panels that are located at perimeter edges of the building shall be fastened to supporting members at a spacing of 36" on center or less as indicated on the manufacturer's erection drawings.

- G. Sump pans, ridge, valley, transition, eave plates, and supplied reinforcement for small openings shall be fastened as indicated on the manufacturer's erection drawings.

3.4 AFTER INSTALLATION

- A. Construction loads that could damage the Acoustical Roof Deck such as heavy concentrated loads and impact loads shall be avoided. Planking shall be used in all high traffic areas.
- B. Prior to the placement of the sound absorbing elements, the top surface of the Acoustical Roof Deck shall be cleaned of all debris, grease, oil, and other foreign substances. Cleaning the bottom surface of the Acoustical Roof Deck for field painting shall be the responsibility of the contractor.
- C. Galvanizing and other coatings that are damaged must be field repaired using appropriate methods and shall be the responsibility of the contractor.
- D. Sound absorbing elements shall be dry before installation of the elements or overlying roof materials.

Epicore® Safe Support Reaction Tables

Safe Support Reaction Tables for End and Interior Supports

Deck Type	Gage	Allowable Reaction (plf)					
		End Bearing Length (in)			Int. Bearing Length (in)		
		1.5	2	3	3	4	5
ER5(A)* ER6.5(A)*	20	644	706	809	1386	1517	1632
	18	1091	1189	1355	2305	2510	2690
	16	1693	1838	2082	3533	3831	4094
ER3.5(A)	20	644	706	809	1386	1517	1632
	19	862	942	1076	1835	2003	2151
	18	1091	1189	1355	2305	2510	2690
ER2R(A)	16	1693	1838	2082	3533	3831	4094
	20	951	1042	1195	1952	2136	2298
	18	1585	1729	1969	3218	3504	3757
	16	2430	2639	2989	4896	5310	5674

*Gage of both top hat and bottom plate sections indicated
Simple span: ER = 0.50WL
Double Span: ER = 0.375WL
IR = 1.25WL

Epicore® Composite Floor Deck Ceiling Systems

Epicore Composite Floor Deck Ceiling Systems combine the structural advantages of a flat slab with the time and cost saving advantages of a permanent form. Due to the dovetail rib shape, the slab can support greater loading than a typical reinforced concrete slab of the same depth. The shape of the profile also supplies a simple, economical, and permanent hanging system. The Epicore Floor Deck additionally furnishes the total positive reinforcing for the composite slab and serves as a permanent form for the concrete. See page 16 or 17 for unprotected U.L. fire resistance ratings.

Hanging System

Epicore 3.5(A) and Epicore (A) dovetail ribs provide a simple, economical, and permanent means for hanging piping, ducts, and other mechanical and utility components. Epicore hangers are inserted parallel to the ribs and can be placed continuously, spaced across the width of the profile. Hangers can be installed as they are needed, and can be relocated, removed or reused at any time during the life of the building.

U.L. Approved Pipe Hangers for Fire Protection Systems

Epicore hangers have been rated under U.L. #203—*Pipe Hanger Equipment for Fire Protection Service*. Wedge Bolts and Ankores can be used in accordance with the *National Fire Protection Association Standards For Installation of Sprinkler Systems (NFPA 13)*.

Superior Fire Ratings

The Epicore 3.5(A) and Epicore (A) Acoustical Composite Floor Deck Ceiling Systems have efficient unprotected fire ratings (see page 16 and 17).

Epicore Composite Floor Deck fire ratings are superior to fire ratings of generic composite floor decks. In most instances, the fire ratings of Epicore Composite Floor Deck slabs require from ½" - 1 ¼" less slab depth than generic profile slabs.

Epicore 3.5(A) Composite Floor Deck fire ratings under U.L. Design Number D942; Epicore Composite Floor Deck fire ratings under U.L. Design Number D904, D917 and D928; Epicore A Composite Floor Deck fire ratings under U.L. Design Number D916, D957 and D975.

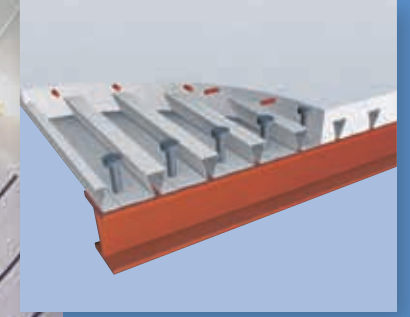
For the unprotected fire ratings shown on page 16 and 17, no spray-applied fireproofing is required on the deck.

Epicore
3.5A

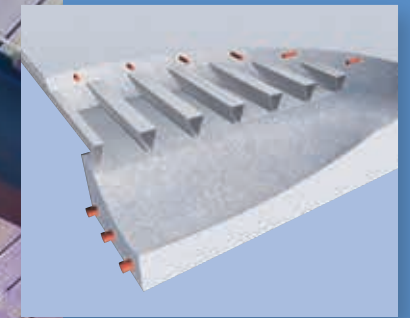
Epicore
3.5

Epicore A

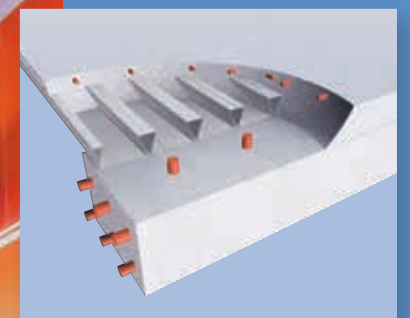
Epicore



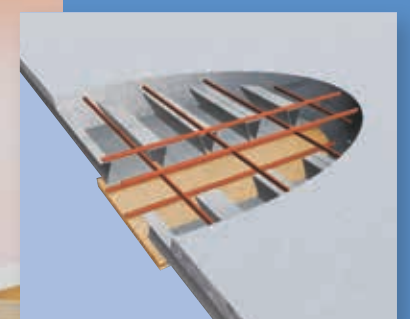
Steel Beam



Reinforced Concrete Beam



Precast Beam



Slab Beam

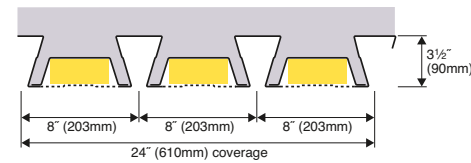
National Aviary, Pittsburgh, Pennsylvania
Epicore ER5A

Epicore® 3.5 Composite Technical Tables

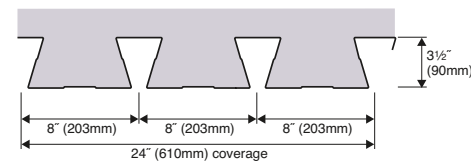
SPANS
10'-25'

ACOUSTIC (EPICORE 3.5A) NON-ACOUSTIC (EPICORE 3.5)

Epicore 3.5A



Epicore 3.5



3.5 Approvals

ICC-ES Approval: ESR-2047

Epicore 3.5(A) Composite Floor System Safe Load Capacities (lbs.)*

Product	Hanger	Max Working Load
Epicore 3.5A	3/8" & 1/2" Ankore	675
Epicore 3.5	3/8" & 1/2" Ankore	875

*Providing the floor system is designed to support these loads

Maximum Sprinkler Pipe Diameter (in.)

Product	Hanger	Diameter (in.)
Epicore 3.5A	3/8" Ankore	4
Epicore 3.5	3/8" Ankore	4
Epicore 3.5A	1/2" Ankore*	5
Epicore 3.5	1/2" Ankore*	6

*3/8" to 1/2" coupling nut required.

Epicore 3.5A Noise Reduction Coefficients*

Absorption Coefficients						NRC
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
0.21	0.86	0.73	0.93	0.75	0.71	0.80

*In accordance with ASTM C423 and E795. Consult EPIC Metals for other test results and individual reports. The NRC is the average of the absorption coefficients at 250, 500, 1000, and 2000 Hz., rounded off to the nearest .05.

Epicore 3.5A Fire Ratings (U.L. Design Number D942)

Restrained Fire Rating	Total Slab Depth (in.)	Type and Density of Concrete (pcf)
1 hour	6.25	RW (147)
1 hour	5.5	LW (110)
1 1/2 hours	6.75	RW (147)
1 1/2 hours	5.75	LW (110)
2 hours	7.25	RW (147)
2 hours	6	LW (110)
3 hours	8	RW (147)
3 hours	7	LW (110)

Note: Epicore 3.5A can achieve the loads shown on page 18 with the fire ratings indicated above.

RW = Regular Weight Concrete.
LW = Lightweight Concrete.

Epicore 3.5 Fire Ratings (U.L. Design Number D942)

Restrained Fire Rating	Total Slab Depth (in.)	Type and Density of Concrete (pcf)
1 1/2 hours	5.5	RW (147)
1 1/2 hours	5.5	LW (110)
2 hours	5.75	RW (147)
2 hours	5.5	LW (110)
3 hours	7.25	RW (147)
3 hours	5.75	LW (110)

Note: Epicore 3.5 can achieve the loads shown on page 19 with the fire ratings indicated above.

RW = Regular Weight Concrete.
LW = Lightweight Concrete.

Suggested Temperature and Shrinkage Reinforcement

Slab Depth (in.)	Welded Wire Fabric Mesh
5 1/2 - 6 1/2	6 x 6 - W1.4 x W1.4
7 - 8	6 x 6 - W2.1 x W2.1

See U.L. Fire Resistance Directory for temperature and shrinkage reinforcement of fire rated assemblies. U.L. Fire Rated Slabs require 6 x 6 - W1.4 x W1.4 mesh.

Epicore 3.5(A) Section Properties

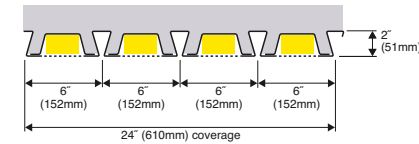
Deck Type	Gage	Weight (psf)	A _s (in. ²)	I _D (in. ⁴)	S _P (in. ³)	S _N (in. ³)
Epicore 3.5A	20	4.6	1.36	2.04	0.75	0.83
	18	5.6	1.66	2.66	1.08	1.09
	16	6.7	1.97	3.30	1.42	1.38
Epicore 3.5	20	3.2	0.95	1.83	0.69	0.81
	18	4.3	1.26	2.49	1.01	1.10
	16	5.4	1.59	3.18	1.36	1.41

Epicore® Composite Technical Tables

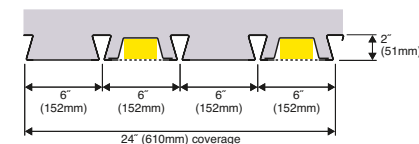
SPANS
6'-20'

ACOUSTIC (EPICORE A, A 50%) NON-ACOUSTIC (EPICORE)

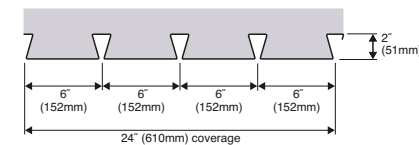
Epicore A



Epicore A 50%



Epicore



Epicore Approvals

ICC-ES Approval: ESR-2047

Epicore (A) Composite Floor System Safe Load Capacities (lbs.)*

Product	Hanger	Max Working Load
Epicore A	3/8" Wedge Bolt	325
Epicore	3/8" Wedge Bolt	825

*Providing the floor system is designed to support these loads

Maximum Sprinkler Pipe Diameter (in.)

Product	Hanger	Diameter (in.)
Epicore A*	3/8" Wedge Bolt	6
Epicore*	3/8" Wedge Bolt	8

*3/8" to 1/2" coupling nut required when suspending sprinkler pipe larger than 4" diameter

Epicore A Noise Reduction Coefficients*

Type	Absorption Coefficients						NRC
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
100% A	0.10	0.21	0.79	0.98	0.95	0.86	0.75
50% A	0.18	0.50	0.66	0.82	0.55	0.43	0.65

*In accordance with ASTM C423 and E795. Consult EPIC Metals for other test results and individual reports. The NRC is the average of the absorption coefficients at 250, 500, 1000, and 2000 Hz., rounded off to the nearest .05.

Epicore A Fire Ratings (U.L. Design Numbers D916, D957 and D975)

Restrained Fire Rating	Total Slab Depth (in.)	Type and Density of Concrete (pcf)
1 hour	5.5	RW (147)
1 hour	4.5	LW (110)
1 1/2 hours	6	RW (147)
1 1/2 hours	5	LW (110)
2 hours	6.5	RW (147)
2 hours	5.25	LW (110)
3 hours	7.25	RW (147)
3 hours	6.1875	LW (110)

Note: Epicore A can achieve the loads shown on page 20 with the fire ratings indicated above.

RW = Regular Weight Concrete.
LW = Lightweight Concrete.

Epicore Fire Ratings (U.L. Design Numbers D904, D917 and D928)

Restrained Fire Rating	Total Slab Depth (in.)	Type and Density of Concrete (pcf)
1 hour	4	RW (147)
1 1/2 hours	4.75	RW (147)
2 hours	5.25	RW (147)
2 hours	5	SLW (130)
2 hours	4.5	LW (110)
3 hours	6.75	RW (147)
3 hours	6	SLW (130)
3 hours	5.25	LW (110)

Note: Epicore can achieve the loads shown on page 21 with the fire ratings indicated above.

RW = Regular Weight Concrete
LW = Lightweight Concrete
SLW = Semi-Lightweight Concrete

Suggested Temperature and Shrinkage Reinforcement

Slab Depth (in.)	Welded Wire Fabric Mesh
4	6 x 6 - W1.4 x W1.4
4 1/2 - 5	6 x 6 - W2.1 x W2.1
5 1/2 - 8	6 x 6 - W2.9 x W2.9

See U.L. Fire Resistance Directory for temperature and shrinkage reinforcement of fire rated assemblies. U.L. Fire Rated Slabs require minimum 6 x 6 - W1.4 x W1.4 mesh for Epicore A and 6 x 6 - W2.9 x W2.9 mesh for Epicore

Epicore (A) Section Properties

Deck Type	Gage	Weight (psf)	A _s (in. ²)	I _D (in. ⁴)	S _P (in. ³)	S _N (in. ³)
Epicore A	20	4.2	1.22	0.63	0.46	0.33
	18	5.0	1.47	0.77	0.59	0.44
	16	5.9	1.73	0.93	0.71	0.56
Epicore	20	2.7	0.79	0.47	0.34	0.31
	18	3.6	1.04	0.63	0.47	0.43
	16	4.5	1.33	0.79	0.59	0.57

Epicore® 3.5 Composite Technical Tables

SPANS
10'-25'

Epicore 3.5A Composite Slab & Shoring Tables

Slab Depth and Weight	Design Thickness (in.)	Maximum Clear Span Without Shoring (ft.-in.)			Uniform Service Load Slab Capacity (LRFD), psf																					
		Single Span	Double Span	Triple Span	Simple Span Condition (See Note 2)															Continuous Span Condition (Negative Moment Reinforcement REQUIRED. See note 3) (ft.)						
					10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"	21'0"	22'0"	23'0"	24'0"	25'0"						
3 ksi Regular Weight Concrete (147 pcf)	5.5" 50 PSF	0.0358	13-5	14-4	14-10	351	316	287	255	195	149	115	88	66	49	-	87	70	55	43	-	87	70	55	43	-
		0.0474	15-3	16-4	G	377	340	308	275	210	162	125	96	73	55	40	96	77	61	48	-	96	77	61	48	-
		0.0600	16-0	18-3	G	352	316	287	262	226	175	135	104	80	61	45	104	84	67	53	41	104	84	67	53	41
	6" 56 PSF	0.0358	12-9	13-8	14-2	400	350	288	239	201	170	144	117	90	69	51	107	94	76	61	47	107	94	76	61	47
		0.0474	14-10	15-7	G	400	392	356	326	272	211	164	128	99	76	57	128	104	84	67	53	128	104	84	67	53
		0.0600	15-6	17-5	G	400	369	335	306	281	227	177	138	108	83	63	138	113	92	74	59	138	113	92	74	59
	6.5" 62 PSF	0.0358	12-2	13-1	13-7	400	397	326	271	228	193	164	140	119	92	71	122	107	94	82	66	122	107	94	82	66
		0.0474	14-5	15-0	15-6	400	400	391	326	275	234	200	166	130	102	78	150	133	112	91	73	150	133	112	91	73
		0.0600	15-1	16-9	G	400	400	383	350	322	289	227	179	141	111	86	150	141	121	99	81	150	141	121	99	81
	7" 68 PSF	0.0358	11-8	12-7	13-1	400	400	366	304	256	216	184	157	135	116	94	137	120	106	93	82	137	120	106	93	82
		0.0474	14-1	14-5	14-11	400	400	400	366	309	263	225	193	167	132	104	161	150	133	118	98	161	150	133	118	98
		0.0600	14-9	16-1	G	400	400	400	394	362	312	268	227	181	143	113	161	152	143	130	107	161	152	143	130	107
7.5" 74 PSF	0.0358	11-2	12-2	12-7	400	400	400	339	284	241	205	175	151	130	112	153	134	118	104	92	153	134	118	104	92	
	0.0474	13-8	13-11	14-4	400	400	400	400	344	292	250	215	186	162	133	173	162	148	132	117	173	162	148	132	117	
	0.0600	14-6	15-7	G	400	400	400	400	400	348	299	258	225	182	145	173	162	153	144	136	173	162	153	144	136	
8" 80 PSF	0.0358	10-10	11-9	12-2	400	400	400	373	314	266	227	194	167	144	124	169	149	131	116	102	169	149	131	116	102	
	0.0474	13-3	13-5	13-11	400	400	400	400	380	323	277	238	206	179	156	184	173	163	146	130	184	173	163	146	130	
	0.0600	14-2	15-1	15-7	400	400	400	400	385	331	286	249	217	182	145	184	173	163	154	145	184	173	163	154	145	

□ No Shoring ■ Shoring Required in Shaded Areas

COMPOSITE SLAB DESIGN NOTES:

- Design is based on ANSI/SDI C-2011 Standard for Composite Steel Floor Decks.
- Simple span conditions for composite design assume no continuity of negative moments. Slab cracking at supports must be considered by the EOR for serviceability design.
- Continuous span conditions are based on continuity over interior supports which requires appropriate negative moment reinforcing steel over supports.
- Deflection limit of the composite slab is L/360 under total load.
- Loads appearing in shaded areas require shoring. Do not exceed unshored spans shown above.
- Composite slab spans are center-to-center of supports.
- All loads are assumed to be statically applied. For dynamic Loads Consult EPIC Metals.
- Slab weight has already been subtracted from the Uniform Service Load Capacity (LRFD) shown above.

DECK DESIGN AS A WET CONCRETE FORM:

- Maximum clear spans without shoring are based on the Steel Deck Institute recommendations for sequential loading and using LRFD methods. The table is based on 0.6Fy steel yield stress and deflection limits of L/180 or 0.75", whichever is less.
- Construction loads are 20 psf uniform loading or 150 lb concentrated load at midspan per SDI recommendations. If heavier construction loads or less form deflection is required, reduce spans or use temporary shoring.
- Runways and planking are recommended during wet concrete placement.
- Minimum bearing length is 1.5" at end supports and 4" at interior supports.
- Listed slab weights include weight of 16 gage deck.
- The slump of the concrete will influence the amount of water/cement leakage. Cleanup of the exposed ceiling surface will be required if leakage occurs.
- 48 foot max sheet length (recommended).
- For temporary shoring of architecturally exposed ceilings: It is recommended to use extra wide shoring support bearing surfaces and/or to reduce the maximum clear span shoring distances shown in the above table so that permanent indentations to the deck/ceiling (under the shoring supports) do not occur.

Epicore 3.5 Composite Slab & Shoring Tables

Slab Depth and Weight	Design Thickness (in.)	Maximum Clear Span Without Shoring (ft.-in.)			Uniform Service Load Slab Capacity (LRFD), psf																					
		Single Span	Double Span	Triple Span	Simple Span Condition (See Note 2)															Continuous Span Condition (Negative Moment Reinforcement REQUIRED. See note 3) (ft.)						
					10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"	21'0"	22'0"	23'0"	24'0"	25'0"						
3 ksi Regular Weight Concrete (147 pcf)	5.5" 63 PSF	0.0358	11-6	12-11	13-4	347	312	282	230	172	129	95	70	49	-	69	53	-	-	-	69	53	-	-	-	
		0.0474	14-1	14-11	15-5	369	332	300	261	197	148	111	83	60	42	-	83	64	48	-	-	83	64	48	-	-
		0.0600	14-11	16-10	G	340	305	276	251	221	168	127	95	71	51	-	95	75	58	43	-	95	75	58	43	-
	6" 69 PSF	0.0358	11-0	12-5	12-10	367	295	240	197	163	135	113	94	72	52	-	80	69	58	44	-	80	69	58	44	-
		0.0474	13-8	14-5	14-10	400	385	348	318	259	198	151	115	86	63	44	115	91	71	54	40	115	91	71	54	40
		0.0600	14-7	16-2	G	399	358	324	295	270	222	171	131	99	74	54	131	105	83	65	49	131	105	83	65	49
	6.5" 75 PSF	0.0358	10-8	12-0	12-4	400	333	271	223	185	154	129	108	90	75	54	92	79	67	57	49	92	79	67	57	49
		0.0474	13-2	13-11	14-4	400	400	362	300	251	212	179	153	118	89	66	132	115	99	78	61	132	115	99	78	61
		0.0600	14-4	15-8	G	400	400	372	339	311	286	223	173	134	103	77	151	141	114	91	72	151	141	114	91	72
	7" 81 PSF	0.0358	10-3	11-7	12-0	400	373	304	250	208	173	145	122	102	86	72	104	89	77	66	56	104	89	77	66	56
		0.0474	12-8	13-5	13-11	400	400	400	337	282	238	202	172	147	120	91	149	130	114	100	85	149	130	114	100	85
		0.0600	14-0	15-2	15-8	400	400	400	383	351	324	283	223	175	137	106	162	152	143	122	99	162	152	143	122	99
7.5" 87 PSF	0.0358	9-11	11-3	11-7	400	400	338	278	231	193	162	136	115	96	81	116	100	86	74	63	116	100	86	74	63	
	0.0474	12-3	13-0	13-6	400	400	400	374	314	265	225	192	164	141	121	167	146	128	113	99	167	146	128	113	99	
	0.0600	13-9	14-8	15-2	400	400	400	400	392	340	291	250	216	176	139	174	163	153	144	131	174	163	153	144	131	
8" 93 PSF	0.0358	9-8	10-11	11-3	400	400	372	307	255	214	179	151	127	107	90	129	112	97	83	71	129	112	97	83	71	
	0.0474	11-11	12-8	13-1	400	400	400	400	347	293	249	213	182	152	135	185	162	143	125	110	185	162	143	125	110	
	0.0600	13-6	14-3	14-9	400	400	400	400	400	376	322	277	240	208	177	185	174	163	153	144	185	174	163	153	144	

□ No Shoring ■ Shoring Required in Shaded Areas

COMPOSITE SLAB DESIGN NOTES:

- Design is based on ANSI/SDI C-2011 Standard for Composite Steel Floor Decks.
- Simple span conditions for composite design assume no continuity of negative moments. Slab cracking at supports must be considered by the EOR for serviceability design.
- Continuous span conditions are based on continuity over interior supports which requires appropriate negative moment reinforcing steel over supports.
- Deflection limit of the composite slab is L/360 under total load.
- Loads appearing in shaded areas require shoring. Do not exceed unshored spans shown above.
- Composite slab spans are center-to-center of supports.
- All loads are assumed to be statically applied. For dynamic Loads Consult EPIC Metals.
- Slab weight has already been subtracted from the Uniform Service Load Capacity (LRFD) shown above.

DECK DESIGN AS A WET CONCRETE FORM:

- Maximum clear spans without shoring are based on the Steel Deck Institute recommendations for sequential loading and using LRFD methods. The table is based on 0.6Fy steel yield stress and deflection limits of L/180 or 0.75", whichever is less.
- Construction loads are 20 psf uniform loading or 150 lb concentrated load at midspan per SDI recommendations. If heavier construction loads or less form deflection is required, reduce spans or use temporary shoring.
- Runways and planking are recommended during wet concrete placement.
- Minimum bearing length is 1.5" at end supports and 4" at interior supports.
- Listed slab weights include weight of 16 gage deck.
- The slump of the concrete will influence the amount of water/cement leakage. Cleanup of the exposed ceiling surface will be required if leakage occurs.
- 48 foot max sheet length (recommended).
- For temporary shoring of architecturally exposed ceilings: It is recommended to use extra wide shoring support bearing surfaces and/or to reduce the maximum clear span shoring distances shown in the above table so that permanent indentations to the deck/ceiling (under the shoring supports) do not occur.

Epicore® Composite Technical Tables

SPANS
6'-20'

Epicore A Composite Slab & Shoring Tables

Slab Depth and Weight	Design Thickness (in.)	Maximum Clear Span Without Shoring (ft.-in.)			Uniform Service Load Slab Capacity (LRFD), psf																
		Single Span	Double Span	Triple Span	Simple Span Condition (See Note 2)										Continuous Span Condition (Negative Moment Reinforcement REQUIRED. See note 3) (ft.)						
					6'0"	7'0"	8'0"	9'0"	10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"		
3 ksi Regular Weight Concrete (147 pcf)	4" 40 PSF	0.0358	10-11	10-11	10-11	400	400	331	273	230	177	128	92	66	47	94	72	54	41	-	-
		0.0474	11-10	11-10	11-10	400	400	400	378	267	191	138	100	73	52	96	78	60	45	-	-
		0.0600	12-4	12-7	13-0	400	400	400	380	287	206	149	109	79	57	96	86	66	50	-	-
	4.5" 46 PSF	0.0358	10-4	10-4	10-4	400	400	382	315	266	228	185	136	100	73	116	107	84	65	49	-
		0.0474	11-5	11-5	11-5	400	400	400	400	374	273	200	147	109	80	116	107	92	71	55	-
		0.0600	11-11	12-0	12-4	400	400	400	400	375	293	215	160	119	88	116	107	100	78	60	-
	5" 52 PSF	0.0358	9-9	9-9	9-9	400	400	400	357	301	258	225	191	143	107	137	126	117	95	74	-
		0.0474	11-0	11-0	11-0	400	400	400	400	400	358	276	206	155	117	137	126	117	104	82	-
		0.0600	11-6	11-6	11-10	400	400	400	400	400	370	298	223	168	127	137	126	117	109	90	-
	5.25" 55 PSF	0.0358	9-7	9-7	9-7	400	400	400	378	318	274	239	211	168	126	147	136	126	113	89	-
		0.0474	10-10	10-10	10-10	400	400	400	400	400	385	317	241	182	138	147	136	126	118	98	-
		0.0600	11-4	11-4	11-7	400	400	400	400	400	392	346	260	197	150	147	136	126	117	108	-
5.5" 58 PSF	0.0358	9-4	9-4	9-4	400	400	400	399	336	289	252	222	195	148	157	146	135	126	106	-	
	0.0474	10-7	10-7	10-7	400	400	400	400	400	400	340	278	211	161	157	146	135	126	116	-	
	0.0600	11-2	11-2	11-4	400	400	400	400	400	400	366	300	229	175	157	146	135	126	117	-	
6" 64 PSF	0.0358	8-11	8-11	8-11	400	400	400	400	400	371	319	278	246	219	178	165	153	142	133	-	
	0.0474	10-3	10-3	10-3	400	400	400	400	400	400	386	322	271	215	178	165	153	142	133	-	
	0.0600	10-10	10-10	10-10	400	400	400	400	400	400	400	361	301	233	178	165	153	142	133	-	

☐ No Shoring ■ Shoring Required in Shaded Areas

COMPOSITE SLAB DESIGN NOTES:

- Design is based on ANS/SDI C-2011 Standard for Composite Steel Floor Decks.
- Simple span conditions for composite design assume no continuity of negative moments. Slab cracking at supports must be considered by the EOR for serviceability design.
- Continuous span conditions are based on continuity over interior supports which requires appropriate negative moment reinforcing steel over supports.
- Deflection limit of the composite slab is L/360 under total load.
- Loads appearing in shaded areas require shoring. Do not exceed unshored spans shown above.
- Composite slab spans are center-to-center of supports.
- All loads are assumed to be statically applied. For dynamic Loads Consult EPIC Metals.
- Slab weight has already been subtracted from the Uniform Service Load Capacity (LRFD) shown above.

DECK DESIGN AS A WET CONCRETE FORM:

- Maximum clear spans without shoring are based on the Steel Deck Institute recommendations for sequential loading and using LRFD methods. The table is based on 0.6Fy steel yield stress and deflection limits of L/180 or 0.75", whichever is less.
- Construction loads are 20 psf uniform loading or 150 lb concentrated load at midspan per SDI recommendations. If heavier construction loads or less form deflection is required, reduce spans or use temporary shoring.
- Runways and planking are recommended during wet concrete placement.
- Minimum bearing length is 1.5" at end supports and 4" at interior supports.
- Listed slab weights include weight of 16 gage deck.
- The slump of the concrete will influence the amount of water/cement leakage. Cleanup of the exposed ceiling surface will be required if leakage occurs.
- For temporary shoring of architecturally exposed ceilings: It is recommended to use extra wide shoring support bearing surfaces and/or to reduce the maximum clear span shoring distances shown in the above table so that permanent indentations to the deck/ceiling (under the shoring supports) do not occur.

Epicore Composite Slab & Shoring Tables

Slab Depth and Weight	Design Thickness (in.)	Maximum Clear Span Without Shoring (ft.-in.)			Uniform Service Load Slab Capacity (LRFD), psf																
		Single Span	Double Span	Triple Span	Simple Span Condition (See Note 2)										Continuous Span Condition (Negative Moment Reinforcement REQUIRED. See note 3) (ft.)						
					6'0"	7'0"	8'0"	9'0"	10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"		
3 ksi Regular Weight Concrete (147 pcf)	4" 49 PSF	0.0358	8-3	8-9	9-0	400	400	340	280	226	164	115	81	55	-	82	60	43	-	-	-
		0.0474	10-1	10-3	10-7	400	400	400	381	269	187	133	94	66	44	96	72	53	-	-	-
		0.0600	11-2	11-9	12-1	400	400	400	386	294	209	150	107	76	53	109	83	62	45	-	-
	4.5" 55 PSF	0.0358	7-11	8-4	8-8	400	400	391	322	267	214	171	123	88	61	125	95	72	53	-	-
		0.0474	9-7	9-9	10-1	400	400	400	400	353	269	195	142	103	73	144	111	85	64	47	-
		0.0600	10-9	11-3	11-7	400	400	400	400	400	381	300	218	160	117	162	126	97	74	56	-
	5" 61 PSF	0.0358	7-7	8-0	8-3	400	400	400	364	307	249	202	165	129	94	146	124	106	83	62	-
		0.0474	9-2	9-5	9-9	400	400	400	400	400	332	271	201	149	110	200	160	125	97	75	-
		0.0600	10-5	10-9	11-2	400	400	400	400	400	376	303	225	168	125	205	180	142	111	87	-
	5.25" 65 PSF	0.0358	7-5	7-10	8-1	400	400	400	385	324	266	216	177	146	113	157	133	114	97	77	-
		0.0474	9-0	9-3	9-6	400	400	400	400	400	355	291	235	176	131	214	184	149	117	91	-
		0.0600	10-3	10-7	10-11	400	400	400	400	400	397	351	263	198	149	215	200	168	133	105	-
5.5" 68 PSF	0.0358	7-4	7-8	8-0	400	400	400	400	342	284	231	189	157	130	167	143	122	104	89	-	
	0.0474	8-10	9-0	9-4	400	400	400	400	400	379	311	257	205	154	226	197	170	138	109	-	
	0.0600	10-1	10-4	10-9	400	400	400	400	400	400	370	304	230	174	226	209	195	157	125	-	
6" 74 PSF	0.0358	7-1	7-5	7-8	400	400	400	400	377	320	261	214	177	147	189	162	138	119	102	-	
	0.0474	8-6	8-9	9-0	400	400	400	400	400	400	351	291	243	205	246	223	193	168	146	-	
	0.0600	9-8	10-0	10-4	400	400	400	400	400	400	400	366	304	233	246	228	213	199	170	-	

☐ No Shoring ■ Shoring Required in Shaded Areas

COMPOSITE SLAB DESIGN NOTES:

- Design is based on ANS/SDI C-2011 Standard for Composite Steel Floor Decks.
- Simple span conditions for composite design assume no continuity of negative moments. Slab cracking at supports must be considered by the EOR for serviceability design.
- Continuous span conditions are based on continuity over interior supports which requires appropriate negative moment reinforcing steel over supports.
- Deflection limit of the composite slab is L/360 under total load.
- Loads appearing in shaded areas require shoring. Do not exceed unshored spans shown above.
- Composite slab spans are center-to-center of supports.
- All loads are assumed to be statically applied. For dynamic Loads Consult EPIC Metals.
- Slab weight has already been subtracted from the Uniform Service Load Capacity (LRFD) shown above.

DECK DESIGN AS A WET CONCRETE FORM:

- Maximum clear spans without shoring are based on the Steel Deck Institute recommendations for sequential loading and using LRFD methods. The table is based on 0.6Fy steel yield stress and deflection limits of L/180 or 0.75", whichever is less.
- Construction loads are 20 psf uniform loading or 150 lb concentrated load at midspan per SDI recommendations. If heavier construction loads or less form deflection is required, reduce spans or use temporary shoring.
- Runways and planking are recommended during wet concrete placement.
- Minimum bearing length is 1.5" at end supports and 4" at interior supports.
- Listed slab weights include weight of 16 gage deck.
- The slump of the concrete will influence the amount of water/cement leakage. Cleanup of the exposed ceiling surface will be required if leakage occurs.
- For temporary shoring of architecturally exposed ceilings: It is recommended to use extra wide shoring support bearing surfaces and/or to reduce the maximum clear span shoring distances shown in the above table so that permanent indentations to the deck/ceiling (under the shoring supports) do not occur.

Epicore® 3.5(A) & (A) Composite Floor Deck Ceiling Systems Specifications

Notes: Omit underlined areas for non-acoustic applications.

PART 1: GENERAL

1.1 SUMMARY

The requirements of this specification section include all materials, equipment and labor necessary to furnish and install Acoustical Composite Floor Deck Systems.

- A. Acoustical Composite Floor Deck shall serve as permanent metal form and total positive reinforcement for concrete floor slabs as indicated on the contract drawings.
- B. Acoustical Composite Floor Deck shall provide an exposed bottom surface that is substantially flat. The narrow rib openings of the Acoustical Composite Floor Deck panels shall provide the appearance of a linear ceiling. Sidelap fasteners shall be concealed within the depth of the dovetail-shaped ribs.
- C. The 3.5" Acoustical Composite Floor Deck: Ankore hanging devices (supplied with ankore locks) that are specially configured to fit into the dovetail-shaped ribs of the 3.5" Acoustical Composite Floor Deck panels shall be available. These hanging devices shall be utilized wherever any related work is suspended from the 3.5" Acoustical Composite Floor Deck. Ankore hanging devices shall be furnished by the installer of the related work unless otherwise indicated.

The 2" Acoustical Composite Floor Deck: Wedge Bolt hanging devices (supplied with Wedge Locks) that are specially configured to fit into the dovetail-shaped ribs of the 2" Acoustical Composite Floor Deck panels shall be available. These hanging devices shall be utilized whenever any related work is suspended from the 2" Acoustical Composite Floor Deck slab. Wedge Bolt hanging devices shall be furnished by the installer of the related work unless otherwise indicated.

1.2 RELATED WORK

The following related work is not part of this specification section:

- A. Cast-In-Place Concrete: Concrete fill, welded wire fabric, reinforcing steel, and temporary shoring.
- B. Structural Steel: Supplementary framing and shear studs.
- C. Fireproofing: Preparation for and application of fireproofing to supporting steel members.
- D. Ceilings: Attachments to Acoustical Composite Floor Deck.
- E. Painting: Preparation for and application of field painting.
- F. Mechanical: Attachments to Acoustical Composite Floor Deck.
- G. Electrical: Attachments to Acoustical Composite Floor Deck.

1.3 SUBMITTALS

Submit the following items in accordance with the conditions of the contract and appropriate specification sections:

- A. Product data for Acoustical Composite Floor Deck and hanging devices including material types, dimensions, finishes, load capacities, and U.L. fire resistance ratings.
- B. Erection drawings for Acoustical Composite Floor Deck and related accessory items showing profiles and material thicknesses, layout, anchorage, openings as dimensioned on the structural drawings, and shoring requirements.

1.4 REFERENCE STANDARDS

- A. Section Properties: Shall be computed in accordance with the *American Iron and Steel Institute (AISI) Specification for the Design of Cold-Formed Steel Structural Members*.
- B. Welding: Shall comply with applicable provisions of *American Welding Society (AWS) D1.3 Structural Welding Code-Sheet Steel*.
- C. Fire Resistance Classification: Shall be acceptable for use in U.L. Fire Resistance Design No. D942 for 3.5" Acoustical Composite Floor Deck; U.L. Laboratories Fire Resistance Design No. D942 for 3.5" Composite Floor Deck; U.L. Fire Resistance Design No. D916, D957, and D975 for 2" Acoustical Composite Floor Deck; U.L. Fire Resistance Design No. D904, D917, and D928 for 2" Composite Floor Deck. All Acoustical Composite Floor Deck Panels used in rated fire resistance designs shall bear the appropriate U.L. classification marking.
- D. Cast-In-Place Concrete: Shall be in accordance with applicable sections of chapters 3, 4, and 5 of *American Concrete Institute (ACI) 318 Building Code Requirement for Reinforced Concrete*. Minimum compressive

strength shall be 3000 psi. Admixtures containing chloride salts shall not be used. Additionally, all concrete constituents including but not limited to aggregates, sand, and water shall be closely monitored to assure that the chlorides do not exceed the limits proscribed in ACI 318.

- E. Noise Reduction Coefficient: Shall be verified by the results of sound absorption tests conducted in accordance with ASTM C423 and E795. A minimum NRC of 0.80 shall be provided for the 3.5" Acoustical Composite Floor Deck. A minimum NRC of 0.75 (NRC of 0.65 for 50% Acoustic) shall be provided for the 2" Acoustical Composite Floor Deck. Copies of the sound absorption test shall be submitted upon request.

1.5 QUALITY ASSURANCE

- A. Manufacturer shall have been regularly engaged in the production of an acoustical roof deck section with dovetail-shaped ribs for a period of at least 10 years.
- B. Acoustical Roof Deck shall be approved by the International Code Council Evaluation Service (ICC-ES) for use as a structural roof deck and shear diaphragm and have a valid ICC-ES evaluation report.

EPICORE Wedge Bolt and Ankore Approval
ICC-ES Approval: Report #ESR-2255

International Code Council Evaluation Service Approval
ICC-ES Approval: Report #ESR-2047

PART 2: PRODUCTS

2.1 MANUFACTURER

- A. In accordance with the requirements of this specification section, provide products manufactured by EPIC Metals, Rankin, PA.
- B. Substitutions: (Under Provisions of Division 01) Not permitted.

2.2 MATERIALS

- A. Acoustical Composite Floor Deck ceiling panels shall be cold-formed from steel sheets conforming to ASTM A653, Grade 40 and Grade 33 or equal, having a minimum yield strength of 40,000 psi and 33,000 psi.
- B. Before forming, the steel sheets shall have received a hot-dip protective coating of zinc conforming to ASTM A924, Class G60 or G90.
Primer Paint Option—Prior to forming, galvanized steel shall be chemically cleaned and pre-treated followed by (on the ceiling surface) an oven-cured epoxy primer and a second coat of oven-cured polyester primer paint applied in the manufacturer's standard color of off-white. Compatibility of field applied finish paint with factory applied primer paint shall be the responsibility of the painting contractor.

Finish Paint Option—Prior to forming, galvanized steel shall be chemically cleaned and pre-treated followed by (on the ceiling surface) an oven-cured epoxy primer and a second coat of oven-cured polyester paint. After factory painting is complete, a removable film shall be applied to the bottom surface of the panels to protect paint finish during manufacturing, shipping, and handling. The protective film is to be removed by the erector prior to installation.

Paint Option—For specialized painting systems that are recommended for Natatoriums and other high humidity applications, contact EPIC Metals.

- C. The minimum uncoated thickness of material supplied shall be within 5% of the design thickness.

2.3 FABRICATION

- A. The 3.5" deep Acoustical Composite Floor Deck panels shall have continuous dovetail-shaped ribs spaced 8" on center.
The 2" deep Acoustical Composite Floor Deck panels shall have continuous dovetail-shaped ribs spaced 6" on center.
- B. The design thickness and minimum section properties shall be indicated on the contract drawings.
- C. Acoustical Composite Floor Deck panels shall have full depth positive registering sidelaps that can be fastened together by welds or screws.
- D. Whenever possible, Acoustical Composite Floor Deck panels shall be fabricated to provide a minimum three span condition.
- E. Acoustical Composite Floor Deck panels shall be fabricated from sections formed with dovetail-shaped ribs. The sections shall be perforated in the areas between the dovetail-shaped ribs as indicated on the contract drawings. All perforated areas shall be covered with "cap" sections formed from galvanized steel sheets and factory attached to the underlying perforated sections. The combination of these sections shall form units that contain cavities suitable for sound absorbing elements.

2.4 ACCESSORIES

- A. The 3.5" deck Ankore hanging devices (which include Ankore locks) or the 2" deck Wedge Bolt hanging devices (which include Wedge Locks) shall be installable and relocatable anywhere along the length of the interior ribs of the Acoustical Composite Floor Deck panels.
- B. Column closures, end closures, and side closures shall be provided as required by the manufacturer's standards.
- C. Manufacturer's standard flexible or metal type rib profile closures shall be provided as indicated on the contract drawings.
- D. Slab edge forms of 10 gage or less material thickness shall be provided as indicated on the contract drawings.
- E. Reinforcement for small openings that are shown on the structural drawings and do not require supplementary framing shall be provided based on the manufacturer's recommendations.
- F. Acoustic elements shall be factory installed above the perforations in the bottom flat area between the dovetail-shaped ribs. To facilitate field painting of the perforated surfaces, the sound absorbing elements shall be supported above the surface on corrosion resistant spacers. Sound absorbing elements and spacers shall be factory installed.

PART 3: EXECUTION

3.1 GENERAL

Acoustical Composite Floor Deck panels and accessories shall be installed in strict accordance with the manufacturer's approved erection drawings, installation instructions, the *Steel Deck Institute (SDI) Manual for Construction with Steel Deck*, and all applicable safety regulations.

3.2 BEFORE INSTALLATION

- A. The need for temporary shoring shall be investigated. Shoring tables published by the manufacturer shall be consulted to determine if shoring will be required. Unshored spans shall be reduced if greater construction loads are anticipated or if less deflection of the deck as a form is allowable.
- B. The supporting frame and other work relating to Acoustical Composite Floor Deck shall be examined to determine if this work has been properly completed. Temporary shoring, if required, shall be in place prior to installation of Acoustical Composite Floor Deck panels.
- C. All components of the Acoustical Composite Floor Deck System shall be protected from significant damage during shipment and handling. If storage at the jobsite is required, bundles or packages of these materials shall be elevated above the ground, sloped to provide drainage, and protected from the elements with a ventilated waterproof covering.

3.3 INSTALLATION

- A. Bundles or packages of Acoustical Composite Floor Deck System components shall be located on supporting members in such a manner that overloading of any of the individual members does not occur. Acoustical Composite Floor Deck panels shall not be placed on concrete supporting members until after the members have adequately cured or properly designed formwork is in place.
- B. Before being permanently fastened, Acoustical Composite Floor Deck panels shall be placed with ends accurately aligned and adequately bearing on supporting members or formwork. Proper coverage of the Acoustical Composite Floor Deck panels shall be maintained. Care must be taken by the erector to maintain uniform spacing of the bottom rib opening (equal to the openings in the profiled sheet) at the sidelaps.
- C. Field cutting of Acoustical Composite Floor Deck panels shall be performed in a neat and precise manner. Only those openings shown on the structural drawings shall be cut. Other openings shall be approved by the structural engineer and cut by those requiring the opening.
- D. Acoustical Composite Floor Deck panels shall be fastened to all supporting members with $\frac{3}{4}$ " diameter puddle welds at a nominal spacing of 8" on center or less for 3.5" deck and 6" on center or less for 2" deck as indicated on the manufacturer's erection drawings.
- E. Sidelaps of Acoustical Composite Floor Deck panels shall be fastened together by welds or screws at a spacing of 36" on center or less as indicated on the manufacturer's erection drawings. Sides of Acoustical Composite Floor Deck panels that are located at perimeter edges of the building shall be fastened to supporting members at a spacing of 36" on center or less as indicated on the manufacturer's erection drawings.
- F. Column closures, end closures, side closures, rib closures, slab edge forms, and supplied reinforcement for small openings shall be fastened as indicated on the manufacturer's erection drawings.
- G. Shear studs may be substituted for puddle welds to permanently fasten Acoustical Composite Floor Deck panels to steel supporting members. The shear stud manufacturer shall provide instructions for welding studs through Acoustical Composite Floor Deck.
- H. Mechanical fasteners may be substituted for puddle welds to permanently fasten Acoustical Composite Floor Deck panels to supporting members. The mechanical fastener manufacturer shall provide documentation as to

the equivalent load capacity and proper installation procedure for each type of fastener being used.

3.4 WORK BY OTHER TRADES

- A. The slump of the concrete will determine the amount of concrete leakage and cleanup that will be required to the ceiling surface. On all projects some cleanup of the ceiling surface will be required.

3.5 AFTER INSTALLATION

- A. Construction loads that could damage the Acoustical Composite Floor Deck such as heavy concentrated loads and impact loads shall be avoided. Planking shall be used in all high traffic areas.
- B. Prior to placement of concrete, the top surface of Acoustical Composite Floor Deck shall be cleaned of all debris, grease, oil, and other foreign substances. Cleaning the bottom surface of the Acoustical Composite Floor Deck for field painting shall be the responsibility of the painting contractor.
- C. Galvanized coatings that are significantly damaged shall be repaired. An appropriate galvanized repair paint shall be used, and the paint manufacturer's application instructions shall be followed.
- D. Temporary shoring, if required, shall remain in place until after the Acoustical Composite Floor slab has attained at least 75% of its design strength.

3.6 PROTECTION

When the Epicore Composite Floor Slab is used in an exterior application (such as a balcony) the steel deck shall be adequately protected by field priming and painting with a rust inhibitive paint or by stuccoing the deck. The surface of the concrete shall also be adequately sealed. The composite deck provides the positive reinforcement for the slab; therefore, the finish on the steel deck must be specified by the architect and engineer for the environment it will be used in to protect the steel deck for the life of the structure.

Designer's Responsibility & Warranty

Designer's Responsibility

The information presented in this brochure has been prepared in accordance with generally recognized engineering principles. We recommend that this information not be used or relied upon for any application without a thorough review by a licensed professional engineer, designer, or architect who will be competent to evaluate the significance and limitations of this material and who will accept responsibility for the application of this material for any specific application.

EPIC Metals makes no representation or warranty respecting any information contained in this manual, including but not limited to the accuracy, completeness, or suitability of such information for any particular purpose or use.

EPIC Metals expressly disclaims any and all warranties, expressed or implied.

By making this information available, EPIC Metals is not rendering professional services, and assumes no duty or responsibility with respect to any person making use of such information.

In addition, EPIC Metals is not liable for any claim, demand, injury, loss, expense, or liability of any kind whatsoever that in any way arises out of, or is connected with, the use of the information contained in this publication, whether or not such claim, demand, loss, expense, or liability results directly or indirectly from any action or omission of EPIC Metals. Any party using the information contained in this brochure assumes all liability arising from such use.

Since hazards may be associated with the handling, installation, or use of steel and its accessories, prudent construction practices should always be followed. We recommend that the parties involved in such handling, installation, or use review all applicable manufacturer's material safety data sheets, applicable rules and regulations of the Occupational Safety and Health Administration and other government agencies having jurisdiction over such handling, installation, or use, and other relevant construction practice publications, including the Steel Deck Institute (SDI) *Manual for Construction with Steel Deck*.

Warranty

EPIC Metals warrants that materials to be furnished, insofar as they are manufactured by EPIC Metals, shall be free from structural defects. In the event of the failure of the material within one year from the date of delivery, and providing that such failure is attributed to defects found to have existed at the time of delivery, EPIC Metals' liability hereunder shall be limited to furnishing necessary replacement material. EPIC Metals assumes no liability for damages, losses, or injuries, direct or consequential, that may arise from use or inability to use the products.

Except as herein provided, there are no expressed or implied warranties as to merchantability or fitness of the materials for any particular purpose.



JetBlue Park (Red Sox Spring Training Facility)
Fort Myers, Florida
Epicore ER3.5

Front Cover: Cal Poly State University Recreation
Center, San Luis Obispo, California
Epicore ER3.5A

Specifying EPIC Metals' Epicore® Roof and Floor Deck Ceiling Systems for your next project can bring the structural art of the building's design and acoustics to the appreciation of the public. Acoustic Epicore enables the architect or engineer to control the interior sound environment of the building. EPIC Metals continues to be the innovative leader in the design and production of roof and floor deck ceiling systems.

EPIC METALS®

11 Talbot Avenue
Rankin, PA 15104 USA
877-696-3742 Toll-Free
412-351-3913 Tel
412-351-2018 Fax
epicmetals.com



Copyright © 2009, 2015 EPIC Metals Corporation.
All rights reserved. Reproduction in whole
or in part without the express consent
of EPIC Metals Corporation is prohibited.

EPIC Metals Specialty
Building Product Catalogs:

Envista® Roof and Floor
Deck Ceiling Systems

Toris® Roof and Floor
Deck Ceiling Systems

EPIC Wideck® Long-Span Roof
and Floor Deck Ceiling Systems

EPIC Archdeck® Curved
Roof Deck Ceiling Systems

EPICORE MSR® Multi-Story
Residential Composite Floor Deck

EPIC Roof and Acoustical
Deck Systems

EPIC Composite Acoustical
Floor and Form Decks



Declare.

Steel Deck with
EPICLAD® Finish
Red List Free

