# Ultra-Dek<sup>®</sup> Standing Seam Roof System

## **Description**

Ultra-Dek<sup>\*</sup> is a metal standing seam roofing product attached by using a variety of concealed, interlocking clips that provide for minimum panel penetrations. The Ultra-Dek<sup>\*</sup> panel can be used on new construction as well as retrofit on existing structures. This panel is designed to provide a high degree of weathertightness and has been tested by independent laboratories in accordance with ASTM E1680 and E1646 (for air infiltration and water penetration).

### Gauge

24 gauge (standard)22 gauge (available on special request)

### Length

55' maximum is standard but longer lengths available by special request

#### **Dimensions**

24" wide by 3" high (standard) 18" and 12" also available

### Finish

Galvalume Plus<sup>®</sup> Signature<sup>®</sup> 200 Colors Signature<sup>®</sup> 300 Colors

### Fasteners

Concealed fastening system. The clips are available as sliding or fixed. Two different clip heights are available to allow for thermal blocks.

#### Usage

This panel is a structural panel that spans up to five feet on purlins, or can be used as an architectural panel over solid deck. This flat panel is designed with striations as an option to minimize oil-canning.

### Limitations

Recommended for roof slopes of 1/4:12 or greater. When using the fixed clip, we recommend for symmetrical double slope buildings 200' wide or less and single slope buildings 100' wide or less. (May vary upon extreme weather conditions.) Oil-canning is not a reason for rejection.



# Attributes

- 1. No panel penetration is required over the building envelope other than at the end laps, and panel ends which are connected by a compression joint
- 2. Panel side laps arrive at the job site containing a sealant
- 3. Factory notched at both ends with pre-punched holes
- 4. End laps have a 16 gauge backup plate with pre-punched holes
- 5. High or low clips
- 6. UL® 90
- 7. Panels interlock by snapping together

### Advantages

- 1. Specially designed to seal out the elements
- 2. Contributes to the system's weather tight construction and ease of installation
- 3. Field installation can commence or finish from either end of the building
- 4. Solid connection at end laps and proper fastener spacing, the pre-punched holes improve installation and ensure proper panel placement
- 5. Accommodates variety of insulation systems including 1" thermal spacers at the purlin
- 6. Lower insurance costs
- 7. No need for seaming equipment and ease of installation

# UltraDek® - Section Properties - 24" Coverage

			NEG	ATIVE BEND	ING	POSITIVE BENDING			
PANEL GAUGE	Fy (KSI)	WEIGHT (PSF)	lxe (IN.4/FT.)	<b>Sxe</b> (IN.3/FT.)	Maxo (KIP-IN.)	lxe (IN.4/FT.)	<b>Sxe</b> (IN.3/FT.)	Maxo (KIP-IN.)	
24	50	1.23	0.135	0.0951	2.8477	0.2798	0.1153	3.4524	
22	50	1.56	0.1837	0.1332	3.9877	0.39877	0.1504	4.502	

### Allowable Uniform Loads In Pounds Per Square Foot - 24" Coverage 24 Gauge (Fy = 50 Ksi)

SPAN Type	LOAD Type	SUPPORT SPACING							
		2.5	3.0	3.5	4.0	4.5	5.0	5.5	
SINGLE	LIVE LOAD	204.0	170.0	145.7	1275	113.3	92.1	76.1	
2-SPAN	LIVE LOAD	204.0	170.0	145.7	118.7	93.8	75.9	62.8	
3-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	113.3	94.9	78.4	
4-SPAN	LIVE LOAD	204.0	170.0	145.7	127.5	109.4	88.6	73.2	

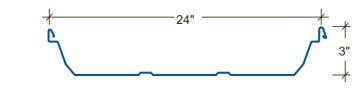
### 22 Gauge (Fy = 50 Ksi)

SPAN	LOAD Type	SUPPORT SPACING							
TYPE		2.5	3.0	3.5	4.0	4.5	5.0	5.5	
SINGLE	LIVE LOAD	296.9	247.5	212.1	185.6	148.2	120.1	99.2	
2-SPAN	LIVE LOAD	296.9	247.5	212.1	166.2	131.3	106.3	87.9	
3-SPAN	LIVE LOAD	296.9	247.5	212.1	185.6	164.1	132.9	109.9	
4-SPAN	LIVE LOAD	296.9	247.5	212.1	185.6	152.3	124.1	102.6	

The engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the *North American Specification of Cold-Formed Steel Structural Members* published by the American Iron and Steel Institute to facilitate design. This specification contains the design criteria for cold-formed steel components. Along with the specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

#### EFFECTIVE NOVEMBER 3, 2004 SUBJECT TO CHANGE WITHOUT NOTICE

Ultra-Dek<sup>®</sup> is a registered trademark of the NCI Group, Inc. Galvalume Plus<sup>®</sup> is a registered trademark of BIEC International, Inc. Signature<sup>®</sup> is a registered trademark of the NCI Group, Inc.



### **Properties Notes:**

- 1. All calculations for the properties of Ultra-Dek<sup>®</sup> panels are calculated in accordance with the 2001 edition of the North American Specification of Cold-Formed Steel Structural Members.
- 2. Ixe is for deflection determination.
- 3. Sxe is for bending.
- 4. Maxo is allowable bending moment.
- 5. All values are for one foot of panel width.

### Allowable Uniform Loads Notes:

- 1. Allowable loads are based on uniform span lengths and Fy = 50 ksi.
- 2. **LIVE LOAD** is limited by bending, shear, combined shear and bending.
- 3. Allowable loads consider a maximum deflection ratio of L/180.
- 4. The weight of the panel has not been deducted from the allowable loads.
- 5. THE ALLOWABLE UNIFORM LOADS ARE NOT FOR USE WHEN DESIGNING PANELS TO RESIST WIND UPLIFT.
- 6. Please contact manufacturer or manufacturer's website for most current allowable wind uplift loads.



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