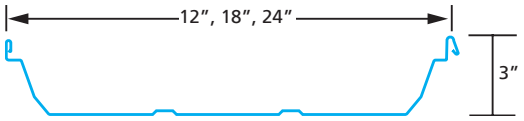
Ultra-Dek®

FEATURE	BENEFIT
1 Design integrity	1 Panel begins and ends in the high, reducing the risk of leakage at the rake that can occur when finishing in the low.
2 Floating roof is able to cope with the forces of expansion and contraction	2 This is accomplished by allowing the panels to freely move up and down the roof slope. Due to this design feature, the system offers no diaphragm capabilities or purlin stability.
3 2” sliding clips Available	3 Providing 1-1/4” movement in each direction.
4 UL Class 90 Rating	4 Has 10 different UL Class 90 construction numbers, each of which is available with several options.
5 Fire resistance ratings	5 The roof system qualifies for use in several UL design assemblies and carries a UL “Class A” fire rating
6 No field seaming is required	6 The panels snap together forming a self-locking seal.
7 Flexibility	7 Wall covering can be erected before or after the roof is installed.
8 Ease of installation	8 The erector has the option to install each side of the roof separately or both sides simultaneously, which greatly increases the speed and convenience of erection.
9 Forgiving system	9 Panel is designed to allow for the roof to be finished in the “high” when an out-of-square condition or other factors cause the roof to terminate up to 4” out of module.
10 Pre-punched panels and components	10 Combined with self-engaging back-up plates, assures panel module and speeds roof installation.
11 Colors and finishes	11 Available in both Signature® 200 and Signature® 300 series paint systems.



PRODUCT DESCRIPTION

Description:
Ultra-Dek® is a metal standing seam roofing product attached by using a variety of concealed, interlocking clips that provide for minimum panel penetrations. This panel can be used on new construction and for retrofit on existing structures.

Gauge:
24 and 22

Lengths:
Maximum recommended length of 50’-0”. Longer lengths available upon special order.

Dimensions:
Standard size is 24” wide by 3” high. 18” and 12” widths are also available.

Fasteners:
Concealed fastening system. The clips are available as floating or fixed. Two different clip heights are available to allow for thermal spacers.

Finish:
Galvalume Plus®, Signature® 200 Colors, Signature® 300 Colors.

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. Fixed clips are recommended for only double slope buildings 200’ wide or less and single slope buildings 100’ wide or less with purlins. (May vary upon extreme weather conditions).

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Ultra-Dek®

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

26 Gauge (Fy = 50 Ksi)

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.5	3	3.5	4	4.5	5	5.5
1-SPAN	LIVE LOAD	146.9	122.4	104.9	91.8	81.6	72	59.5
2-SPAN	LIVE LOAD	146.9	122.4	104.9	91.8	81.6	66.7	55.1
3-SPAN	LIVE LOAD	146.9	122.4	104.9	91.8	81.6	73.4	66.8
4-SPAN	LIVE LOAD	146.9	122.4	104.9	91.8	81.6	73.4	64.3

24 Gauge (Fy = 50 Ksi)

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.5	3	3.5	4	4.5	5	5.5
1-SPAN	LIVE LOAD	204	170	145.7	127.5	113.3	92.1	76.1
2-SPAN	LIVE LOAD	204	170	145.7	118.7	93.8	75.9	62.8
3-SPAN	LIVE LOAD	204	170	145.7	127.5	113.3	94.9	78.4
4-SPAN	LIVE LOAD	204	170	145.7	127.5	109.4	88.6	73.2

22 Gauge (Fy = 50 Ksi)

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.5	3	3.5	4	4.5	5	5.5
1-SPAN	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

SECTION PROPERTIES

Ultra-Dek® - Section Properties - 24" Coverage

			NEGATIVE BENDING			POSITIVE BENDING		
PANEL GAUGE	Fy (ksi)	WEIGHT (psf)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)
26	50	1.02	0.1158	0.0835	2.4997	0.2202	0.0901	2.6987
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

Ultra-Dek® - Section Properties -18" Coverage

			NEGATIVE BENDING			POSITIVE BENDING		
PANEL GAUGE	Fy (ksi)	WEIGHT (psf)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)
26	50	1.09	0.1366	0.093	2.7843	0.2686	0.1173	3.5126
24	50	1.32	0.1804	0.1274	3.8134	0.3366	0.1477	4.426
22	50	1.66	0.2444	0.178	5.3298	0.4359	0.1915	5.7339

Ultra-Dek® - Section Properties -12" Coverage

			NEGATIVE BENDING			POSITIVE BENDING		
PANEL GAUGE	Fy (ksi)	WEIGHT (psf)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)	Ixe ($in.^4/ft.$)	Sxe ($in.^3/ft.$)	Maxo (kip-in.)
26	50	1.23	0.1742	0.111	3.3221	0.3405	0.1649	4.9359
24	50	1.48	0.233	0.154	4.6122	0.4258	0.207	6.1988
22	50	1.86	0.3256	0.2238	6.7018	0.5507	0.2682	8.0305

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 & bending.
3. 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 LOADS ARE NOT FOR USE WHEN DESIGNING PANELS TO RESIST WIND UPLIFT.

SECTION PROPERTY NOTES

1. All calculations for the properties of **Ultra-Dek®** panels are calculated in accordance with the 2001 edition of the North American Specification For Design 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 the one foot of panel width.

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 for the Design 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.

Robertson Building Systems reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. For current product information, inquire or visit RobertsonBuildings.com. Application details are for illustration purposes only and may not be appropriate for all conditions, building designs or panel profiles. If there is a conflict between the preceding and project erection drawings, the erection drawings will take precedence.

Robertson Building Systems

Corporate Office | 1343 Sandhill Dr., Ancaster, ON L9G 4V5
| 800-387-5335, 905-304-1111, f 905-304-2420

Western Office | 11318-163 St. NW, Edmonton, AB T5M 1Y6
| 780-485-3055, f 780-461-7785

RobertsonBuildings.com