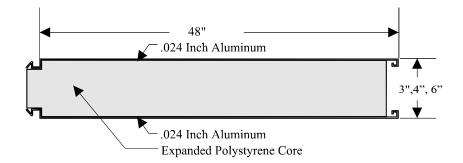
Engineering Data

Snaplock Panel Specifications

Panel Weight

Thickness	lb. / lin. ft.
3	4.3
4	4.8
6	5.8



Allowable Uniform Transverse Loads (psf)

2.5 Safety Factor / Limit governed by deflection (L/120)

Projection	3" Polycore Snaplock Panel	4" Polycore Snaplock Panel	6" Polycore Snaplock Panel
10'	31.3 PSF	41.9 PSF	63.1 PSF
11'	25.9 PSF	34.6 PSF	52.2 PSF
12'	21.7 PSF	29.1 PSF	43.8 PSF
13'	18.5 PSF	24.8 PSF	37.3 PSF
14'	16.0 PSF	21.4 PSF	32.2 PSF
15'	13.9 PSF	18.6 PSF	28.0 PSF
16'	12.2 PSF	16.4 PSF	24.6 PSF
17'	10.8 PSF	14.5 PSF	21.8PSF
18'	9.7 PSF	12.9 PSF	19.5 PSF

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F_{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

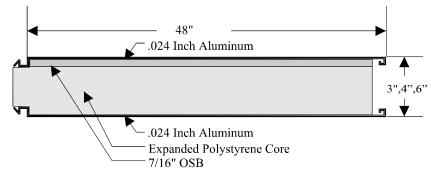
V = Shear

_	3"	4"	6"
R-Value	13.5	18	27

Snaplock OSB Panel Specifications

Panel Weight

Thickness	lb. / lin. ft.
3	11.8
4	12
6	12.2



Allowable Uniform Transverse Loads (psf)

2.5 Safety Factor / Limit governed by deflection (L/120)

Projection	3" Snaplock OSB Panel	4" Snaplock OSB Panel	6" Snaplock OSB Panel
10'	60 PSF	66 PSF	75 PSF
11'	53.2 PSF	59 PSF	68 PSF
12'	48 PSF	53 PSF	61 PSF
13'	43 PSF	48.5 PSF	56 PSF
14'	38 PSF	45 PSF	53 PSF
15'	31 PSF	40 PSF	50 PSF
16'	24 PSF	35 PSF	46.4 PSF
17'	19.2 PSF	28.8 PSF	38 PSF
18'	15.36 PSF	23.6 PSF	31.2 PSF

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F_{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

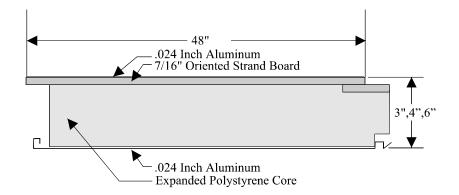
V = Shear

	3"	4"	6"
R-Value	10.5	14.5	22.5

4-Ply OSB Overlap with Snaplock Bottom Panel Specifications

Panel Weight

Thickness	lb. / lin. ft.
3	11.8
4	12
6	12.2



Allowable Uniform Transverse Loads (psf)

2.5 Safety Factor / Limit governed by deflection (L/120)

Projection	3" Panel	4" Panel	6" Panel
10'	60 PSF	66 PSF	75 PSF
11'	53.2 PSF	59 PSF	68 PSF
12'	48 PSF	53 PSF	61 PSF
13'	43 PSF	48.5 PSF	56 PSF
14'	38 PSF	45 PSF	53 PSF
15'	31 PSF	40 PSF	50 PSF
16'	24 PSF	35 PSF	46.4 PSF
17'	19.2 PSF	28.8 PSF	38 PSF
18'	15.36 PSF	23.6 PSF	31.2 PSF

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity G = Modulus of Rigidity

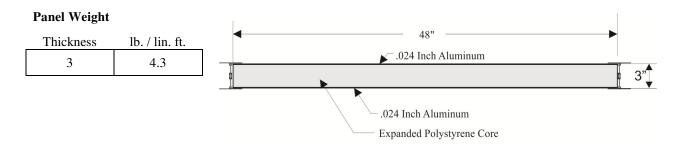
V = Shear

	3"	4"	6"
R-Value	10.5	14.5	22.5

F = Allowable Stress

T = Tension

Straight Edge Polycore Panel Specifications



Allowable Uniform Transverse Loads (psf)

2.5 Safety Factor / Limit governed by deflection (L/120)

Projection	3" with H-Bars	
10'	58 PSF	
11'	48 PSF	
12'	40 PSF	
13'	35.2 PSF	
14'	31.2 PSF	
15'	26 PSF	
16'	21.2 PSF	
17'	17.4 PSF	
18'	14.24 PSF	

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

V = Shear

MR = Modulus of Rupture

R-Value: 13.5

5-Ply OSB Straight Edge Polycore Panel Specifications

Panel Weight

	Thickness 3	lb. / lin. ft.	7/16" Oriented Strand Board .024 Inch Aluminum	
ļ			-7/16" Oriented Strand Board .024 Inch Aluminum Expanded Polystyrene Core	3"

Allowable Uniform Transverse Loads (psf) 2.5 Safety Factor / Limit governed by deflection (L/120)

Projection

3"	with	H-Bars

1 Tojection	5 With H Buils	
10'	60 PSF	
11'	56.2 PSF	
12'	52.5 PSF	
13'	48.8 PSF	
14'	45 PSF	
15'	36.4 PSF	
16'	31.5 PSF	
17'	30.24 PSF	
18'	24.8 PSF	

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

V = Shear

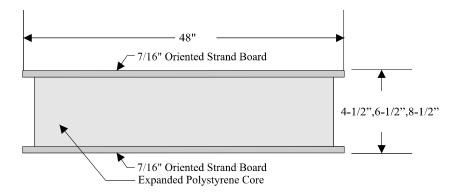
MR = Modulus of Rupture

R-Value: 9

Polydeck Panel Specifications

Panel Weight

Thickness	lb. / lin. ft.
2x4	16.8
2x6	17.8
2x8	18.8



Deflection Data

	Beam Span	L / 180	L/240	L/360	6' Max Post Spacing
	4	128 PSF	96 PSF	64 PSF	
	6	70 PSF	52 PSF	35 PSF	
2x4 System	8	42 PSF	32 PSF	21 PSF	Using 2x6 Beams
	10	29 PSF	22 PSF	16 PSF	
	12	20 PSF	15 PSF	11 PSF	
	4	206 PSF	154 PSF	103 PSF	
	6	119 PSF	89 PSF	60 PSF	
2x6 System	8	75 PSF	56 PSF	38 PSF	Using 2x8 Beams
	10	52 PSF	39 PSF	27 PSF	
	12	36 PSF	28 PSF	19 PSF	
	4	275 PSF	206 PSF	138 PSF	
	6	163 PSF	122 PSF	82 PSF	
2x8 System	8	106 PSF	80 PSF	53 PSF	Using 2x10 Beams
	10	74 PSF	56 PSF	38 PSF	
	12	53 PSF	40 PSF	28 PSF	

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

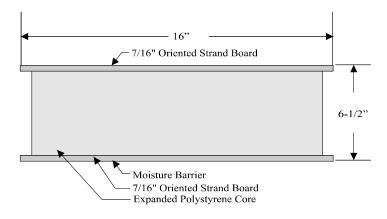
V = Shear

_	2x4	2x6	2x8
R-Value	15	23	31

Polydeck 16 Panel Specifications

Weight

Thickness	lb. / lin. ft.
2x6	4.6
2x6 Beam	3



Deflection Data

Projection	L/360	6' Maximum Post Spacing
10	86 PSF	Using Reinforced Beams
11	83 PSF	Using Reinforced Beams
12	80 PSF	Using Reinforced Beams
13	74 PSF	Using Reinforced Beams
14	68 PSF	Using Reinforced Beams
15*	62 PSF	Using Reinforced Beams
16*	56 PSF	Using Reinforced Beams
17*	50 PSF	Using Reinforced Beams
18*	44 PSF	Using Reinforced Beams

^{*} Span not recommended without center support.

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension

V = Shear

MR = Modulus of Rupture

R Value = 23

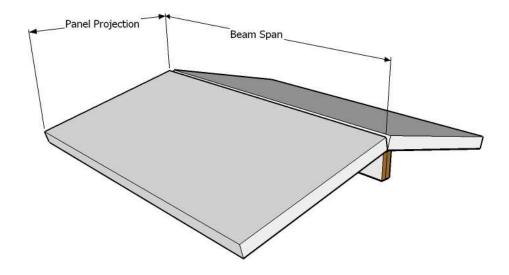
Maximum Beam Spans

Cathedral Style Roof

Panel Projection per Side	6 feet			8 feet			10 feet		
Live Loads (PSF)	25	30	40	25	30	40	25	30	40
6" Beam Span	20'	16'-6"	14'-6"	17'-6"	14'-6"	12'-6"	16'-6"	12'-6"	11'-6"
8" Beam Span	24'	23'	20'	24'	20'-6"	17'-6"	21'	17'-6"	15'-6"

Panel Projection per Side		12 feet			14 feet			17 feet	
Live Loads (PSF)	25	30	40	25	30	40	20	30	40
6" Beam Span	14'-6"	11'-6"							
8" Beam Span	20'	16'-6"							
10" Beam Span				22'	18'-6"	14'	20'	16'	12'
12" Beam Span			24'			24'			24'

Minimum Pitch Requirement: 3/12



Maximum Beam Spans

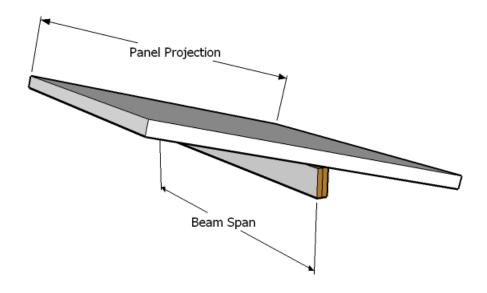
Studio Style Roof

Panel Projection	12 feet		16 feet			18 feet			
Live Loads (PSF)	25	30	40	25	30	40	25	30	40
6" Beam Span	20'	16'-6"	14'-6"	17'-6"	14'-6"	12'-6"			
8" Beam Span	24'	23'	20'	24'	20'-6"	17'-6"			
10" Beam Span								24'	21'-6"

Panel Projection	20 feet				24 feet	
Live Loads (PSF)	25	30	40	25	30	40
6" Beam Span	16'-6"	12'-6"	11'-6"			
8" Beam Span	21'	17'-6"	15'-6"			
10" Beam Span	24'	22'-6"	20'	24'	20'	16'
12" Beam Span			24'			24'

Minimum Pitch Requirement: 3/12

Beam must be placed at mid point in roof projection.



UL Rating on EPS



BRYX.R16529 Foamed Plastic

Page Bottom

Foamed Plastic

See General Information for Foamed Plastic

ATLAS EPS, DIV OF ATLAS ROOFING CORP

BYRON CENTER, MI 49315 USA

R16529

Foamed plastic in the form of blocks and boards.

"Falcon Foam", "Atlas EPS" or "ThermalStar"

	6 In. Max +
Flame spread	20#
Smoke developed	400#

⁺Installed in a thickness or stored in an effective thickness, as indicated, for a density of 0.75 to 2.00 pcf.

#Flame spread and smoke developed recorded while material remained in original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread of 140 and smoke developed of over 500.

"Falcon Foam", "Atlas EPS" or "ThermalStar"

	1 In. Max +	2 In, Max +	4 In, Max +	
Flame spread	5#	5##	10###	
Smoke developed	55-90#	55-90##	55-90###	

⁺Installed in a thickness or stored in an effective thickness, as indicated, for a density of 1.0 pcf.

#Flame spread and smoke developed recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread classification of 10 and smoke developed classification of 200.

##Flame spread and smoke developed recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread classification of 40 and smoke developed classification of 450.

###Flame spread and smoke developed recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread classification of 80 and smoke developed classification of 450-over 500.

ThermalStar Recycleboard (0.70 lb/ft³), ThermalStar Underlayment Insulation (1.00, 1.25, 1.50, 2.00 lb/ft³)

	3/8 - 1 in. Thick+
Flame spread	20#
Smoke developed	10-300#

⁺Installed in a thickness, or stored in an effective thickness, as indicated, for a density of 0.70 to 2.00 lb/ft3.

#Flame spread and smoke developed recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread index of 180 and smoke developed index of over 500.

Last Updated on 2010-03-05

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Wind Load Wall Evaluations Overhang Uplift

Maximum Axial Compressive Load

Solid Accent 8' HeightFramed (Windows / Doors) 8' Height1205 lbs / ft1010 lbs / ft

(Calculated at 135 m.p.h. winds)

Maximum Racking Load

Solid Accent 8' Height	Framed (Windows / Doors) 8' Height
79 lbs / ft	71 lbs / ft

(Calculated at 135 m.p.h. winds)

Mechanical Properties of Materials Used

	Aluminum Skin	Aluminum Extrusion	Expanded Polystyrene	Oriented Strand Board
Alloy	.024 Alloy 3003 H14	6061 – T6		
D	165 PSF		1.5 PCF	
E	10 x 10 ⁶ PSI		320-360 PSI	7.24 x 10 ⁵ PSI
$\mathbf{F}_{\mathbf{T}}$	20.3 KSI Ultimate 16.7 KSI Yield		40-50 PSI	
$\mathbf{F}_{\mathbf{V}}$	13.8 KSI		18-22 PSI	
G			460-500 PSI	
T		42 KSI		
MR				644 PSI

E = Modulus of Elasticity

G = Modulus of Rigidity

F = Allowable Stress

T = Tension V = Shear

MR = Modulus of Rupture

Aluminum Color Match

Urban Industries purchases millions of pounds of aluminum coil from mills for manufacturing aluminum panels. The mill converts aluminum into coil stock to meet the specifications of Urban's purchase order regarding the alloy, tensile strength, thickness, width, color, embossing, and coil weight. As with any manufacturing process there is a certain amount of commercially accepted tolerance expressed by a mill in the production of their product.

Paint

There is the potential for a small color variation from one production run to another, from one painting cycle to another, from beginning of a coil to the end of the coil. Normally this variation is too small to be visually perceived, however when two pieces of coil are found to be at the opposite extremes of the allowable tolerance, there is a potential for the differences to be seen.

Embossing Pattern

Urban uses a stucco embossing pattern in our coil stock because it gives the panel a non-directional pattern, allowing it to be used vertically or horizontally while minimizing the visual perception of any surface irregularity. Embossing is pressed into the surface of the coil. The depth of the embossing can vary from one coil to another and this too affects the visual perception of color on a panel.

Varying Coil Stock

Urban Industries uses care to assure that orders are made from the same coil to reduce color variation. However, when 4' wide panels are mixed with 2' wide panels, the potential for the appearance of color variation is greater because the panels are not made from the same coil stock. Also, whenever replacement panels are used there is always a chance that the color of the replacement panels may not be the same color as the original panels.

The appearance of color variations for the above mentioned reasons is considered normal commercial tolerances by the mills from which Urban Industries purchases its coil stock. Urban Industries is forced to pass along these tolerances since it is not in the power of Urban Industries to eliminate such variances.