

# "The User Friendly ICF"

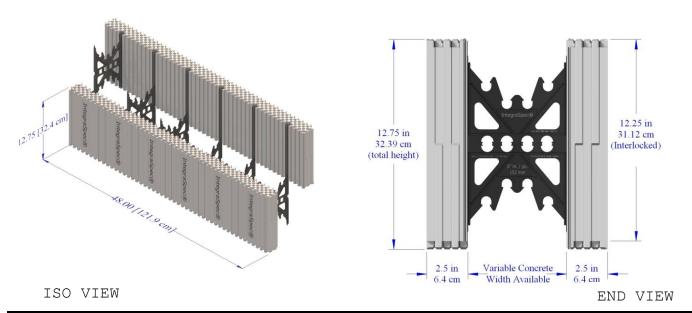


# **PRODUCTS & SPECIFICATIONS**

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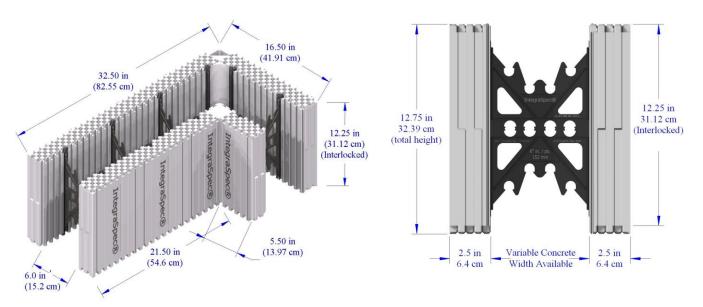
# Integraspec® STANDARD PANEL(S)



Typical Panel Dim	ension(s)	Length 48.0" x Width 2.5" x Height 12.25" (interlocked) (Length 122 cm x Width 6.35 cm x Height 31.12 cm)				
		`			O	,
		Note: part dimen	sions may vary sligh	itly due to EPS mat	erial shrinkage (100	% recyclable)
Standard Concrete Cavity /	4"	5"	6"	8"	10"	12"
Core	(10.2 cm)	(12.7 cm)	(15.2 cm)	(20.3 cm)	(25.4 cm)	(30.5 cm)
Total Wall Width	9"	10"	11"	13"	15"	17"
(2 Integra Panels + Concrete Core)	(22.9 cm)	(25.4 cm)	(27.9 cm)	(33.0 cm)	(38.1 cm)	(43.2 cm)
Integra Foam panel(s)	Material	Flame Reta	rdant Type 2,	Expanded P	olystyrene (E	PS),
		Density = $1$	.5 pounds/cu	ıbic/feet (pcf	(24.14  kg/n)	$n^3$
Integra Plastic Insert(s)	Material	High Impac	ct Polystyrene	e (HIPS) (100	% recycled m	aterial)
Unique and Special Int						oottom, left, or
Features of t	he Panels	right hand	side). Enables	s faster and m	nore accurate	installation
		and elimina	ites waste			
Interlockir	ng Design	Unique spe	cial patented	friction and	mechanical in	iterlocks
Typical Fasteniı	ng Studs/	Vertical 15%" (4.13 cm) wide located every 8" (20 cm) OC				
	Strapping					
Exterior Sur	face Area	4.08 ft <sup>2</sup> (0.38	3 m²) (interlo	cked)		
Concrete Volume 4" (10.1)	6 cm) Wall	$0.05 \text{ yd}^3$ (0.0	039 m³)/ Stan	dard Form U	nit	
Concrete Volume 5" (12.7)	0 cm) Wall	$0.06 \text{ yd}^3$ (0.0	048 m³)/ Stan	dard Form U	nit	
Concrete Volume 6" (15.2	4 cm) Wall	11 0.08 yd <sup>3</sup> (0.058 m <sup>3</sup> )/ Standard Form Unit (shown above)				
Concrete Volume 8" (20.3)	2 cm) Wall	0.10 yd <sup>3</sup> (0.077 m <sup>3</sup> )/ Standard Form Unit				
Concrete Volume 10" (25.4	0 cm) Wall	11 0.12 yd <sup>3</sup> (0.094 m <sup>3</sup> )/ Standard Form Unit				
Concrete Volume 12" (30.48cm) Wall 0.151 yd3 (0.11 m3)/				dard Form U	nit	
Qtys / Area / Meters po	er Bundle	18 Standard Panels 36.72 ft <sup>2</sup> (3.42 m <sup>2</sup> ) of wall area (incl.				ıll area (incl.
		(9 Blocks)		both sides	of wall)	•



### 90° CORNER UNIT 6" (15.2 cm)

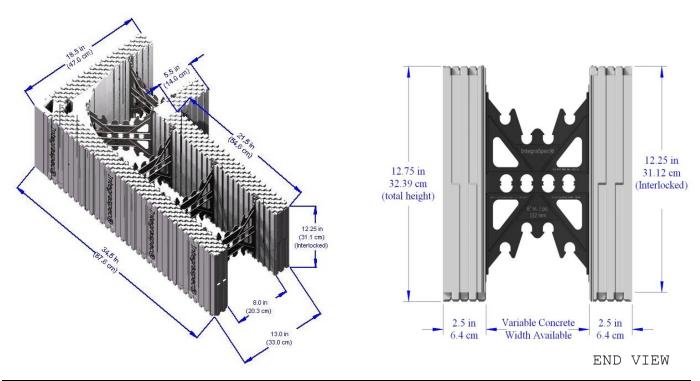


END VIEW

Packaging	Poly-wrapped		
Bundle Weight	Approx. 43 lbs (19.5 kg)	/bundle	
Bundle Size	25.0" (63.5 cm) wide x 48.0" (2.5 cm)	121.9 cm) long x 22.5" (57.1 cm) high	
Typical Exterior Panel Dimension(s)	Length 32.5" x Width 16	5.5" x Height 12.25" (interlocked)	
	(Length 82.6 cm x Widtl	h 41.91 cm x Height 31.12 cm)	
		ghtly due to EPS material shrinkage (100% recyclable)	
Typical Interior Panel Dimension(s)		5" x Height 12.25" (interlocked)	
	(Length 54.6 cm x Widtl	h 14 cm x Height 31.12 cm)	
		ghtly due to EPS material shrinkage (100% recyclable)	
Concrete Volume per Corner Unit	0.056 yd <sup>3</sup> (0.043 m <sup>3</sup> )		
Integra Foam panel(s) Material	Flame Retardant Type 2, Expanded Polystyrene (EPS),		
	Density = 1.5 pounds/cubic/feet (pcf) (24.14 kg/m <sup>3</sup> )		
Integra Plastic Insert(s) Material	High Impact Polystyren	ne (HIPS) (recycled material)	
Unique and Special Interlocking	Patented bi-directional	and or reversible (No top, bottom, left,	
Features of the Panels	or right hand side). Ena	bles faster and more accurate	
	installation and elimina	tes waste	
Interlocking Design	Unique special patented	d friction and mechanical interlocks	
Typical Fastening Studs / Strapping	Vertical 15/8" (4.13 cm) w	ride located every 8" (20 cm) OC	
Exterior Surface Area			
Qtys / Area / Meters per Bundle	8 Corner Units	33.28 ft <sup>2</sup> (3.1 m <sup>2</sup> of wall area (incl. both	
	(16 Panels) sides of wall)		
Packaging	Poly-wrapped		
Bundle Weight	Approx. 31 lbs (14 kg)/bundle		
Bundle Size	21.0" (53.34 cm) wide x 42.0" (106.7 cm) long x 25" (63.5 cm) high		



### Commercial 90° CORNER UNIT 8" (20.3 cm)\*

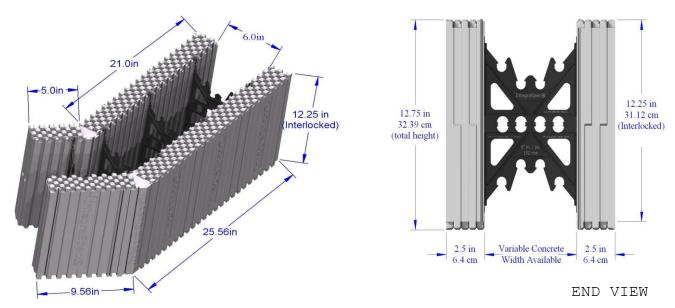


Typical Exterior Panel Dimension(s)	Length 34.5" x Width 18	3.5" x Height 12.25" (interlocked)		
	(Length 87.6 cm x Widt	h 47 cm x Height 31.12 cm)		
	Note: part dimensions may vary slig	ghtly due to EPS material shrinkage (100% recyclable)		
Typical Interior Panel Dimension(s)	Length 21.5" x Width 5.	5" x Height 12.25" (interlocked)		
	(Length 54.6 cm x Width 14 cm x Height 31.12 cm)			
	Note: part dimensions may vary slightly due to EPS material shrinkage (100% recyclable)			
Concrete Volume per Corner Unit	0.067 yd <sup>3</sup> (0.051 m <sup>3)</sup>			
Integra Foam panel(s) Material		2, Expanded Polystyrene (EPS),		
	Density = $1.5 \text{ pounds/cubic/feet (pcf)}$ (24.14 kg/m <sup>3</sup> )			
Integra Plastic Insert(s) Material	High Impact Polystyrene (HIPS) (recycled material)			
Unique and Special Interlocking	Patented bi-directional and or reversible (No top, bottom, left,			
Features of the Panels		bles faster and more accurate		
	installation and eliminates waste			
Interlocking Design	Unique special patented friction and mechanical interlocks			
Typical Fastening Studs / Strapping	Vertical 15/8" (4.13 cm) w	vide Located every 8" (20 cm) OC		
Exterior Surface Area	4.51 ft <sup>2</sup> (0.42 m <sup>2</sup> ) (interlo	ocked)		
Qtys/Area/Meters per Bundle	8 Corner Units	36.08 ft <sup>2</sup> (3.35 m <sup>2</sup> of wall area (incl.		
	(16 Panels)	both sides of wall)		
Packaging	Poly-wrapped			
Bundle Weight	, , , , , , , , , , , , , , , , , , ,			
Bundle Size	25.5" (64.77 cm) wide x 45.0"	25.5" (64.77 cm) wide x 45.0" (114.3 cm) long x 25" (63.5 cm) high		

<sup>\*</sup>Also referred to as: "90° Commercial Corner Unit"



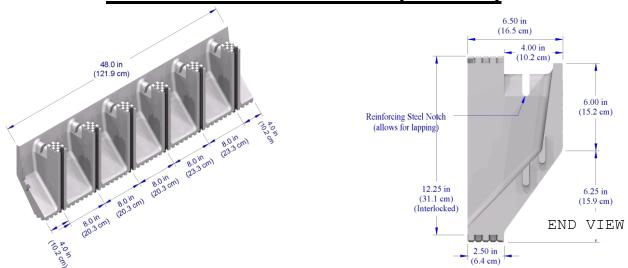
# 45° CORNER UNIT 6" (15.2 cm)



Trust cal Futorior Den al Directorio	I are outle OF FC" at I are attle	0.54	(" II sight 10 05" (intended at s. 1)
Typical Exterior Panel Dimension(s)			6" x Height 12.25" (interlocked)
	` 0		24.28 cm x Height 31.12 cm)
	, ,		due to EPS material shrinkage (100% recyclable)
Typical Interior Panel Dimension(s)			(Height 12.25" (interlocked)
	(Length 53.34 cm x Len	ıgth	12.7 cm x Height 31.12 cm)
	Note: part dimensions may vary sl	lightly	due to EPS material shrinkage (100% recyclable)
Concrete Volume per Corner Unit	.048 yd <sup>3</sup> (0.036 m <sup>3)</sup>		
Integra Foam panel(s) Material	Flame Retardant Type	2, E	xpanded Polystyrene (EPS),
	Density = 1.5 pounds/cubic/feet (pcf) (24.14 kg/m <sup>3</sup> )		
Integra Plastic Insert(s) Material			
Unique and Special Interlocking	Patented bi-directional and or reversible (No top, bottom, left,		
Features of the Panels	or right hand side). Enables faster and more accurate		
	installation and eliminates waste		
Interlocking Design	Unique special patented friction and mechanical interlocks		
Typical Fastening Studs / Strapping	Vertical 15/8" (4.13 cm) v	wide	e Located every 8" (20 cm) OC
	(with an additional loc	ated	l at exterior corner)
Exterior Surface Area	2.99 ft <sup>2</sup> (0.28 m <sup>2</sup> ) (interl	ocke	ed)
Interior Surface Area	2.21 ft <sup>2</sup> (0.20 m <sup>2</sup> ) (interl	ocke	ed)
Qtys / Area / Meters per Bundle	16 panels/bundle		84 ft <sup>2</sup> (4.48 m <sup>2</sup> of wall area (Exterior
<b>Exterior Corner Panels</b>	,		e of wall (one side))
Qtys / Area / Meters per Bundle	16 panels/bundle		36 ft <sup>2</sup> (3.20 m <sup>2</sup> of wall are Interior
Interior Corner Panels			e of wall (one side))
Packaging	Poly-wrapped		, , , , , , , , , , , , , , , , , , , ,
Bundle Weight and Size Exterior	Weight = Approx. 28 lbs		Size = H 25 ½" x L 45 ½ " x W 23"
Panels	(12.7 kg)		(H 65 cm x L 116 cm x W 58 cm)
Bundle Weight and Size Interior	Weight = Approx. 26 lb	os	Size = H 25 ½" x L 21 ½ " x W 34"
Panels	(11.8 kg)		(H 65 cm x L 55 cm x W 76 cm)



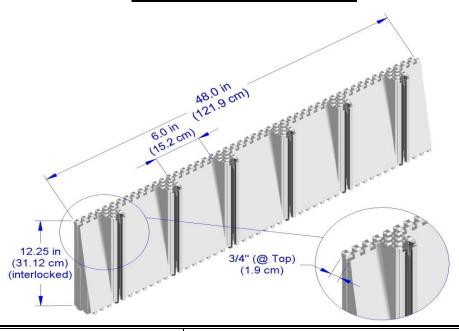
### BRICK LEDGE PANEL 4" (10.0 cm)



Typical Bri	ck Ledge Par	nel	Length 48.0" x Width 6.5" x Height 12.25" (interlocked)						
	Dimension	(s)	(Length 122 cm x Width 16.51 cm x Height 31.12 cm)						
			Note: part d	imensions may vary			(100% recyclable)		
	e Projection				2 cm) (from fa				
Concrete Core	4"		5"	6"	8"	10"	12"		
Size	(10.2 cm)	(	12.7 cm)	(15.2 cm)	(20.3 cm)	(38.1 cm)	(30.5 cm)		
Overall Wall									
Width	13"		14"	15"	17"	19"	21"		
(1 Brick Ledge	(33.0 cm)	(	35.6 cm)	(38.1 cm)	(43.1 cm)	(48.3 cm)	(53.3 cm)		
Panel)									
Overall Wall									
Width	17"	,	18"	19"	21"	23"	25"		
(2 Brick Ledge	(43.1 cm)	(	45.7 cm)	(48.3 cm)	(53.3 cm)	(58.4 cm)	(63.5 cm)		
Panels)	D 13.6.4		E1 D	. 1	0 F 1	1.D. 1.	(EDC)		
Integra Foam	Panel Mater	ıal	Flame Retardant Type 2, Expanded Polystyrene (EPS),						
			Density = 1.5 pounds/cubic/feet (pcf) (24.14 kg/m³)						
Integra Plastic In	sert(s) Mater	ial	High Impact Polystyrene (HIPS) (recycled material)						
Unique	Panel Featur	res	Interlocking tongue and grooves on panel ends; can be placed						
	<u>-</u>			anywhere in the wall(s) and at different elevation(s); interlocks					
			consecu	tive row(s) or	n top; incorpo	rates rebar no	otch		
Inter	locking Desi	gn	Unique	special patent	ted friction a	nd mechanica	l interlocks		
D	esign Princip	pal	Insulated monolithic structural concrete ledger (Brick / Floor)						
Exteri	or Surface A	ea	4.08 ft <sup>2</sup> (	0.38 m²) (inte	rlocked)				
Concrete Req	0.0286 yd³ (0.022 m³)/panel								
Ledge Panel Qtys / Area / Meters per Bundle			, , , , , , ,						
Qtys/Area/Me	8 Brick Ledge Panels 32.64 ft <sup>2</sup> (3.03 m <sup>2</sup> ) (1 side of wall)								
	Packagi		Poly-wrapped						
	Bundle Weig Bundle Si	•	19 lbs (8.6 kg)/bundle						
	25.0" (63.5 cm) wide x 49.0" (124.46 cm) long x 26.5" (67.3 cm) high								



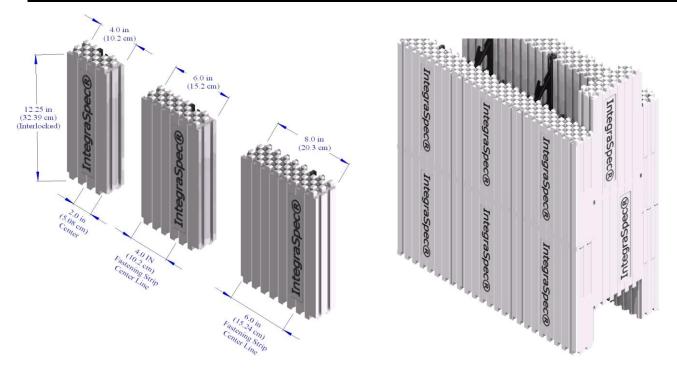
### **TAPER TOP PANEL**



Typical Taper Top Panel Dimensions			Length 48.0" x Width 2.5" x Height 12.25" (interlocked)				
		(Length 122 cm x Width 6.4 cm x Height 31.12 cm)  Note: part dimensions may vary slightly due to EPS material shrinkage (100% recyclable)					
A 11''' 10	, ,	Not	e: part dimensions			terial shrinkage (1	00% recyclable)
Additional Concrete at T			T		75" (4.5 cm)	Ī	ı
Concrete Core Size	4"		5"	6"	8"	10"	12"
	(10.2 c	m)	(12.7 cm)	(15.2 cm)	(20.3 cm)	(38.1 cm)	(30.5 cm)
Overall Concrete Wall Width	5.75"		6.75"	7.75"	9.75"	11.75"	13.75"
at Top (1 Taper Top Panel)	(14.6 cı	m)	(17.15 cm)	(19.7 cm)	(24.8 cm)	(29.9 cm)	(34.9 cm)
Overall Concrete Wall Width	7.5"		8.5"	9.5"	11.5"	13.5"	15.5"
at Top (2 Taper Top Panels)	(19.1 c	m)	(21.6 cm)	(24.1 cm)	(29.2 cm)	(34.3 cm)	(39.4 cm)
Integra Foam Panel M	aterial				2, Expanded P ubic/feet (pcf		
Integra Plastic Insert(s) M	aterial				ne (HIPS) (recy		
Unique Panel Features			Interlocking tongue and grooves on panel ends; can be place anywhere in the wall(s) and at different elevation(s); interlocks consecutive row(s) on top;				
Interlocking l	Design	Unique special patented friction and mechanical interlocks					
Design Pri	incipal	Inc	creases conc	rete thick	ness / strengt	h at top of v	vall
Exterior Surface	e Area	4.08 ft <sup>2</sup> (0.38 m <sup>2</sup> ) (interlocked)					
Concrete Required per Tap	er Top	0.0083 yd <sup>3</sup> (0.0064 m <sup>3</sup> )/panel					
	Panel						
Qtys / Area / Meters per Bundle		18	Standard Pa	anels 3	36.72 ft² (3.42 ı	m²) of wall a	rea (incl.
			Blocks)	1	ooth sides of v	vall)	
Packaging Poly-wrapped							
Bundle Weight   Approx. 35 lbs (15.88 kg)/bundle							
Bund	le Size	25.0	0" (63.5 cm) wi	de x 48.0" (1	121.9 cm) long x 2	22.5" (57.1 cm)	high



### INTEGRABUCKS 4" (10.2 cm), 6" (15.2 cm) & 8" (20.3 cm)

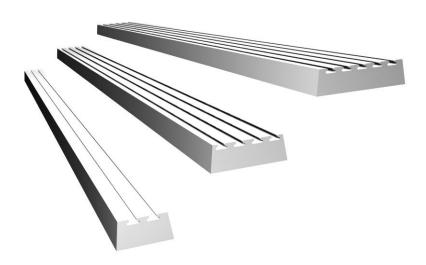


Staggered IntegraBucks Shown

Integra Bucks Dimensio	on 4" (10.2 cm) long x 2	" (5.1 cm) wide x 12.25"	(31.1 cm) high	
	Note: part dimensions may va	ry slightly due to EPS material shrinkage (100% recyclable)		
	6" (15.2 cm) long x 2	2" (5.1 cm) wide x 12.25"	(31.1 cm) high	
	Note: part dimensions may va	ry slightly due to EPS material shrin	ıkage (100% recyclable)	
	8" (20.3 cm) long x 2	2.5" (6.4 cm) wide x 12.25	5" (31.1 cm) high	
	Note: part dimensions may va	ry slightly due to EPS material shrin	ıkage (100% recyclable)	
Integra Foam panel(s) Materi	al   Flame Retardant Ty	pe 2, Expanded Polystyr	ene (EPS),	
	Density = 1.5 pound	ls/cubic/feet (pcf) (24.1	4 kg/m³)	
Integra Plastic Insert(s) Materi	High Impact Polystyrene (HIPS) (recycled material)			
Unique and Special Interlockir	Bi-directional and or reversible (No top, bottom, left, or right hand			
Features of the Pane	<b>ls</b> side). Slides in pane	l dovetails. Enables faste	er and more accurate	
	installation of rough	openings and includes	strapping to fasten	
	window and or doo	r frame(s).		
Interlocking Desig	n Unique special pate	nted friction and doveta	il interlock(s)	
Typical Fastening Stude	s/ Vertical 15/8" (4.13 cm	n) wide; located inside b	ucks	
Strappir	ng			
Integra Buck Sizes	4" (10.2 cm)	6" (15.2 cm)	8" (20.3 cm)	
Quantity	80 pcs	80 pcs	80 pcs	
Packaging	Box	Box	Box	
Approx. Box Weight	23 lbs (10.4 kg)	27 lbs (12.25 kg)	35 lbs (13.15 kg)	
Box Size	20.5" x 19" x 26"	26" x 20.5" x 26.5"	34.5" x 25.5" x 26"	
	(52 cm x 48.3 cm x 66.1 cm)	(66.1 cm x 52.1 cm x 67.3 cm)	(87.6 cm x 64.8 cm x 66.1 cm)	



# INTEGRAHEADERS 4" (10.2 cm), 6" (15.2 cm) & 8" (20.3 cm)



IntegraHeader (4" (10.2 cm), 6" (15.2 cm), & 8" (20.3 cm) shown)



IntegraHeader (top) & IntegraBucks (sides)

IntegraHeader	5" s Dimension 8" 10	4" (10.2 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long 5" (12.7 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long 6" (15.2 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long 8" (20.3 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long 10" (25.4 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long					
	•	12" (30.5 cm) wide x 1.5" (3.8 cm) thick x 8' (244 cm) long					
IntegraHead		Flame Retardant Type 2, Expanded Polystyrene (EPS), Density = 1.5 pounds/cubic/feet (pcf) (24.14 kg/m³)					
Incor	porated Dovetail $P\epsilon$	Perfect concrete bonding with EPS					
IntegraHeader	4"	5"	6"	8"			
Details	(10.2 cm)	(12.7 cm)	(15.2 cm)	(20.3 cm)			
Quantity	30 pcs	30 pcs	30 pcs	30 pcs			
Packaging	Shrink Wrap	Shrink Wrap	Shrink Wrap	Shrink Wrap			
Approx. Box	50 lbs (22.7 kg)	tba lbs (kg)	56 lbs (25.4 kg)	62 lbs (28.1 kg)			
Weight	. 0,						
Bundle Size	96" x 15" x 12"	96" x <u>tba</u> " x <u>tba</u> "	96" x 15" x 17"	96" x 15" x 24"			
	(244 cm x 38.1 cm x 30.5 cm)	(244 cm x <u>tba</u> cm	(244 cm x 38.1 cm x 43.2 cm)	(244 cm x 38.1 cm x 61 cm)			
		X tba cm)					



### **INTEGRASPACERS**





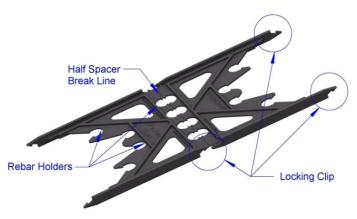








10 in (25.4cm) 12 in (30.5cm)





FULL SPACER

HALF SPACER

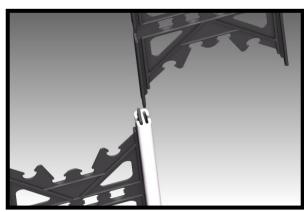
Integra Spacer(s) Plastic Material High Impac					styrene (HIPS) (	recycled materia	1)	
Unique a	nd Special Spac	er Features	Bi-directional and or reversible (No top, bottom, left, or right hand side). Incorporates assorted rebar holders. Breakable in two halves. Can also be cut for custom applications.					
	<b>Interlocking Design</b> Slides in panel inserts and interlocks one on top of the other.					the other.		
Typical Fastening Studs / Strapping			V	Vertical 15/8" (4.13 cm) wide; located inside bucks				
Spacer Sizes	4" (10.2 cm)	5" (12.7 cm)		6" (15.2 cm)	8" (20.3 cm)	10" (25.4 cm)	12" (30.5 cm)	
Packaging	Box	Box		Box	Box	Box	Box	
Quantity	216/box	216/box		216/box	216/box	108/box	108/box	
Weight per Box	35 lbs (16 kg)	38 lbs (17.2 kg)		41 lbs (18.6 kg)	48 lbs (21.8 kg)	27 lbs (12.3 kg)	38 lbs (17 kg)	
Bundle Size	20" x 13.5" x 17.5"	25" x 11.5" x 17.5"		25" x 13.5" x 17.5"	35" x 13.5" x 17.5"	22" x 13.5" x 18.5"	25" x 13.5" x 17.5"	
	(51 cm x 34 cm x 45 cm)	(64 cm x 29 cm x 45 c	m)	(64 cm x 34 cm x 45 cm)	(89 cm x 34 cm x 45 cm)	(56 cm x 34 cm x 45 cm)	(64 cm x 34 cm x 45 cm)	



### **INTEGRA "H" CLIP**







Easy slide-in Spacers

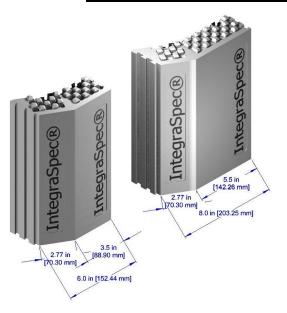


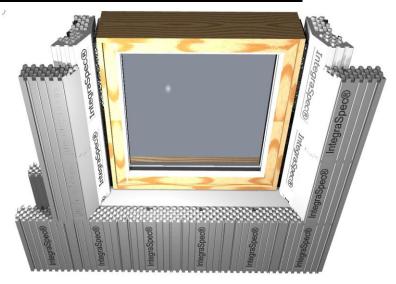
H Clip joining two 6"(15.2cm) spacers shown = 12.63" (32.07cm) concrete width

"H" Clip Plastic Material		PVC (2 <sup>nd</sup> generation recycled material)	
		Joins two or more Integraspec Spacers together (for wider	
Fea	atures	concrete wall(s) and more structural requirements)	
Packaging	Poly-v	wrapped	
Quantity	216 linear feet/bundle (54 pieces x 4 ft. (122 cm) length/bundle)		
Weight per Bundle	27.5 lbs (12.5 kg)		
Bundle Size	<b>Size</b> 48" (243.8 cm) high x 5.5" (14 cm) long x 8" (20.0 cm) wide		



# SANTA FE BUCKS 6" (15.2 cm) & 8" (20.3 cm)



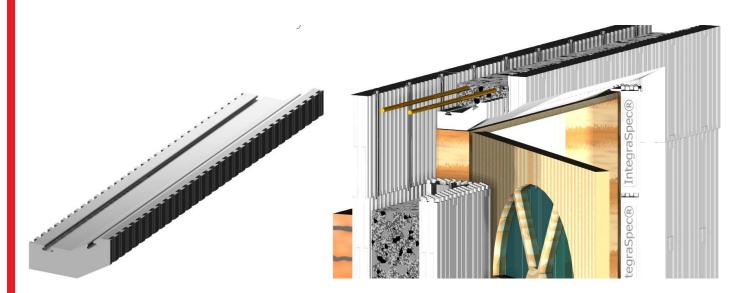


RENDERED VIEW

Conta Fa Book Disconsiona	(" (15 2 am) lane v 0" (5 1 am) and	L 10 0F" (01 1) 1: -1-				
Santa Fe Buck Dimensions	6" (15.2 cm) long x 2" (5.1 cm) wid	, ,				
	Note: part dimensions may vary slightly due to EP					
	8" (20.3 cm) long x 2.5" (6.4 cm) w	ide x 12.25" (31.1 cm) high				
	Note: part dimensions may vary slightly due to EP					
Integra Foam panel(s) Material	Flame Retardant Type 2, Expande					
	Density = 1.5 + pounds/cubic/feet (pcf) (24.14 kg/m³)					
Integra Plastic Insert(s) Material	High Impact Polystyrene (HIPS) (100% recycled material)					
	(2 imbedded inserts on each angle)					
Unique and Special Interlocking	Bi-directional and or reversible (No top, bottom, left, or right hand					
Features of the Panels	side). Slides in panel dovetails. Enables faster and more accurate					
	installation of rough openings and includes strapping to fasten					
	window(s) and or door frame(s).					
	a) Provides an additional 30° of viewing angle on both sides of					
	window openings (adds 2+ LEED points for additional daylight					
Special Features and Benefits	entering the building)					
	b) Provides a 30° wider opening for door swing and handicap					
	access.					
Interlocking Design	Unique special patented friction a	nd dovetail interlock(s)				
Typical Fastening Studs/	Vertical 15/8" (4.13 cm) wide; locate	ed inside bucks				
Strapping	· · ·					
Integra Buck Sizes	6" (15.2 cm)	8" (20.3 cm)				
Quantity	80 pcs	80 pcs				
Packaging						
Approx. Box Weight						
Box Size	28" x 28" x 25.5"	28" x 36" x 25.5"				
	(71.1 cm x 71.1 cm x 64.8 cm)	(71.1 cm x 91.4 cm x 64.8 cm)				



# SANTA FE HEADERS 6" (15.2 cm) & 8" (20.3 cm)

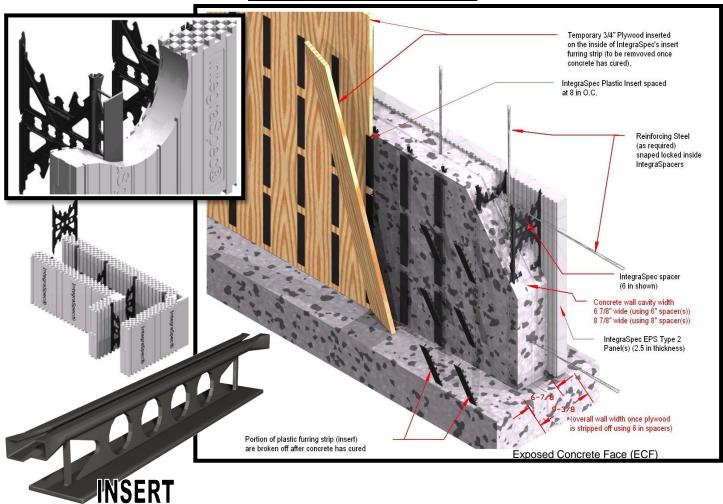


RENDERED VIEW

Santa Fe IntegraBuck Dimensions	6" (15.2 cm) long x 2" (5.1 cm) wide x 96" (31.1 cm) high			
	Note: part dimensions may vary slightly due to EPS material shrinkage (100% recyclable)			
	8" (20.3 cm) long x 2.5" (6.4 cm) w	ide x 96" (31.1 cm) high		
	Note: part dimensions may vary slightly due to EF	S material shrinkage (100% recyclable)		
Integra Foam panel(s) Material	Flame Retardant Type 2, Expande	ed Polystyrene (EPS),		
	Density = 1.5 + pounds/cubic/fee	Density = $1.5 + \text{pounds/cubic/feet (pcf)}$ (24.14 kg/m <sup>3</sup> )		
Unique and Special Interlocking	Bi-directional and or reversible (N	Jo top, bottom, left, or right hand		
Features of the Panels	side). Slides in panel dovetails. Er	nables faster and more accurate		
	installation of rough openings and	d includes strapping to fasten		
	window and or door frame(s).			
	a) Provides an additional 30° of viewing angle on both sides of			
0 115 1 15 44	window openings (adds 2+ LEED	points for additional daylight		
Special Features and Benefits	entering the building)			
	b) Provides a 30° wider opening for door swing and handicap			
	access.			
Interlocking Design	Slides into panel dovetail grooves			
Santa Fe IntegraHeader Sizes	6" (15.2 cm) 8" (20.3 cm)			
Quantity	12 pcs	12 pcs		
Packaging	Shrink wrapped	Shrink wrapped		
Approx. Bundle Weight	18 lbs (8.16 kg)	23 lbs (10.43 kg)		
Bundle Size	19.5" x 13" x 96"	25.5" x 13" x 96"		
	(49.53 cm x 33.02 cm x 243.84 cm)	(64.77 cm x 33.02 cm x 243.84 cm)		



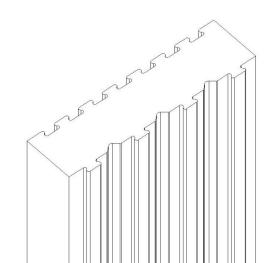
### **PLASTIC INSERT(S)**

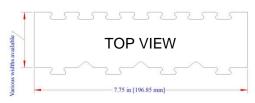


Insert Plastic M	Insert Plastic Material High Impact Polystyrene (HIPS) reprocessed	
Insert Features		Molded and fused / bonded within the Integraspec ICFs.
		May also be used in other applications such as Exposed
	Concrete Face (IntegraECF), elevator shaft, stair case,	
	warehouse, garage / parking, non-combustible wall,	
	privacy fence, etc	
Packaging	Cardboard Box	
Quantity	288 pcs/box	
Weight per Bundle	51 lbs (23.13 kg)	
Box Size	24" (60.96 cm) x 13.25" (33.65 cm) x 12.5" (31.75 cm)	



### **INTEGRA R-BOOST**







Integra R-Boost Material	Expanded Polystyrene (EPS) (Available in EPS Type 1, 2 and *NEOPOR®) *NEOPOR® is a registered trademark of BASF			
Various Thicknesses available		1" (25.4 mm); 2" (51 mm); 3" (76 mm); 4" (102 mm); 5" (127 mm); 6" (152 mm)		
(custom thickness also available)	(custom thickr	ness also available)		
Dimensions	Width $= 7.75$	5" (197mm) x Length	= 24.5" (622mm)	
	Thickness	EPS Type 1	EPS Type 2	*NEOPOR®
	2" (51mm)	7.96, (1.40), [0.71]	8.40, (1.48), [0.67]	9.80, (1.73), [0.58]
Additional R-value, (RSI),	3" (76mm)	11.94, (2.1), [0.48]	12.6, (2.22), [0.45]	14.7, (2.59), [0.39]
[European U-value]	4" (102mm)	15.92, (2.8), [0.36]	16.8, (2.96), [0.33]	19.6, (3.45), [0.29]
	5" (127mm)	19.9, (3.50), [0.29]	21.0, (3.70), [0.27]	24.5, (4.31), [0.23]
	6" (152mm)	23.9, (4.20), [0.24]	25.2, (4.44), [0.22]	29.4, (5.18), [0.19]
Features	Increases insulation and sound reduction, incorporates dovetail grooves for the use of IntegraBucks and for positive mechanical attachment to both the form and the concrete. The Integra R-Boost EPS inserts, in combination with the ICF panel dovetail grooves, incorporate continuous vertical drainage grooves every 2" (51 mm) on center, which functions as a rain screen (where required).			
Installation	Easy add-on, simply slide in the Integraspec panel dovetail grooves; recommended on exterior side of wall although may be used on both sides. Minimum adjustments or modifications at corners.			
Packaging	Poly-wrapped			
Quantity	60 pcs/bundl	e		
Weight/Bundle	15.5 lbs (7.02 kg) EDS Tyms 2			
2" (51mm) shown	15.5 lbs (7.03 kg) - EPS Type 2			
Bundle Size	Approx. 49.5" (1257 mm) x 24" (610 mm) x 22.5" (572 mm)			
2" (51mm) shown	Approx. 49.5 (1257 mm) x 24 (610 mm) x 22.5 (572 mm)			



Type 2 Expanded Polystyrene Rigid Insulation

#### TECHNICAL DATA SHEET

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>TM</sup>16 boards are composed of type 2 expanded polystyrene (EPS) rigid insulation and offer a compressive strength of 110 kPa (16 PSI).

#### **RECOMMENDED USE**

IntegraFB<sup>™</sup>16 boards are the most versatile and can be used in many applications, both exterior and interior, above or below ground level. Install IntegraFB<sup>™</sup>16 boards on the interior and exterior surface of foundation walls, the interior and exterior surface of the framework, underneath the basement finished concrete slab and concrete slab of residential garages, flat and cathedral ceilings as well as flat and sloped roofs in order to obtain a continuous thermal envelope. Ideal to insulate exterior surface of framework walls and under finished basement concrete slab. Suitable for renovation projects and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm and 610 mm x 2438 mm (48" x 96" and 24" x 96")

Square joints by default. Ship lap joints available on two sides for 25 mm (1") thick panels. For panels with a minimum thickness of 38 mm (1½"), ship lap joints available on two or four sides.

Thickne	ss	U-value /	[R-value]
25 mm	(1")	0.25	[R4]
32 mm	(11/4")	0.20	[R5]
38 mm	(1½")	0.17	[R6]
51 mm	(2")	0.13	[R8]
64 mm	(2½")	0.10	[R10]
76 mm	(3")	0.08	[R12]
102 mm	(4")	0.06	[R16]



#### CERTIFICATION

Warnock Hersey has certified the type 2 expanded polystyrene contained in **IntegraFB**<sup>TM</sup>**16** boards manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 2 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13271-L.

#### **ADVANTAGES**

Permanent R-value - does not diminish with time
More dimensionally stable than required
Closed rigid plastic cells allow water vapor diffusion while maintaining insulating value
Versatile, lightweight, easy to transport and install
100% recyclable material



Type 3 Expanded Polystyrene Rigid Insulation

#### TECHNICAL DATA SHEET

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>™</sup>20 boards are composed of type 3 expanded polystyrene (EPS) rigid insulation and offer a compressive strength of 140 kPa (20 PSI).

#### **RECOMMENDED USE**

Install **IntegraFB**<sup>TM</sup>**20** boards in order to obtain a higher R-value than IntegraFB<sup>TM</sup>16 boards on the interior and exterior surface of foundation walls, the interior and exterior surface of the framework, underneath the basement finished concrete slab, flat and cathedral ceilings as well as flat and sloped roofs in order to obtain a continuous thermal envelope. Ideal to insulate concrete slab of residential garages. Suitable for renovation projects and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm and 610 mm x 2438 mm (48" x 96" and 24" x 96")

Square joints by default. Ship lap joints available on two sides for 25 mm (1") thick panels. For panels with a minimum thickness of 38 mm ( $1-\frac{1}{2}$ "), ship lap joints available on two or four sides.

Thickness	U-Value / [R-value]
25 mm (1")	0.24 [R4.2]
30 mm $(1^3/_{16}")$	0.20 [R5.0]
38 mm (1½")	0.16 [R6.3]
51 mm (2")	0.12 [R8.4]
60 mm (2¾")	0.10 [R10.0]
64 mm (2½")	0.09 [R10.5]
76 mm (3")	0.07 [R12.6]



#### **CERTIFICATION**

Warnock Hersey has certified the type 3 expanded polystyrene contained in **IntegraFB<sup>TM</sup>20** boards manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 3 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

#### **ADVANTAGES**

Permanent R-value - does not diminish with time

The most dimensionally stable of the three available types at Integraspec® High density

Excellent moisture resistance

Closed rigid plastic cells allow water vapor diffusion while maintaining insulating value permanently

Versatile, lightweight, easy to transport and install

100% recyclable material

Integraspec and IntegraFB are trademarks of Integraspec Corp.

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Type 3 Expanded Polystyrene Rigid Insulation

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>™</sup>25 boards are composed of type 3 expanded polystyrene (EPS) rigid insulation and offer a compressive strength of 172 kPa (25 PSI).

#### **RECOMMENDED USE**

Install **IntegraFB**<sup>TM</sup>**25** boards in order to obtain a higher R-value than IntegraFB<sup>TM</sup>16 boards on the interior and exterior surface of foundation walls, the interior and exterior surface of the framework, underneath the basement finished concrete slab, flat and cathedral ceilings as well as flat and sloped roofs in order to obtain a continuous thermal envelope. Ideal to insulate concrete slab of residential garages. Suitable for renovation projects and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm and 610 mm x 2438 mm (48" x 96" and 24" x 96")

Square joints by default. Ship lap joints available on two sides for 25 mm (1") thick panels. For panels with a minimum thickness of 38 mm (1-½"), ship lap joints available on two or four sides.

Thickness	U-Value	e / [R-value	e] / (RSI)	
25 mm (1")	0.23	[R4.3]	(0.76)	
38 mm (1½")	0.15	[R6.45]	(1.14)	
51 mm (2")	0.12	[R8.6]	(1.51)	All Sizes
60 mm $(2^5/_{16}")$	0.10	[R10.0]	(1.76)	
64 mm (2½")	0.09	[R10.75]	(1.89)	
76 mm (3")	0.08	[R12.9]	(2.27)	
102mm (4")	0.06	[R17.2]	(3.03)	



#### **CERTIFICATION**

Warnock Hersey has certified the type 3 expanded polystyrene contained in **IntegraFB<sup>TM</sup>25** boards is in accordance with the CAN/ULC-S701-11 standard. The type 3 expanded polystyrene board manufactured by StyroRail<sup>TM</sup> is also listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

#### **ADVANTAGES**

Permanent R-value - does not diminish with time

The most dimensionally stable of the three available types at Integraspec® High density

Excellent moisture resistance

Closed rigid plastic cells allow water vapor diffusion while maintaining insulating value permanently

Versatile, lightweight, easy to transport and install

100% recyclable material

Integraspec and IntegraFB are trademarks of Integraspec Corp.

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Type 3 Expanded Polystyrene Rigid Insulation - High Compressive Strength

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>™</sup>30 boards are composed of type 3 expanded polystyrene (EPS) rigid insulation and offer a compressive strength of 207 kPa (30 PSI).

#### **RECOMMENDED USE**

Install IntegraFB<sup>TM</sup>30 boards when applications require a superior compressive strength insulating material. Ideal to insulate concrete slab of commercial garages. Can also be used as insulating material underneath residential concrete slabs. Suitable for renovation projects and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm and 610 mm x 2438 mm (48" x 96" and 24" x 96")

Square joints by default. Ship lap joints available on two sides for 25 mm (1") thick panels. For panels with a minimum thickness of 38 mm  $(1-\frac{1}{2})$ , ship lap joints available on two or four sides.

Thickness	U-value / [R-value]
25 mm (1")	0.23 [R4.3]
38 mm (1½")	0.15 [R6.5]
51 mm (2")	0.12 [R8.6]
59 mm $(2^5/_{16}")$ 0.10	[R10.0]
64 mm (2½")	0.09 [R10.8]
76 mm (3")	0.08 [R12.9]



#### **CERTIFICATION**

Warnock Hersey has certified the type 3 expanded polystyrene contained in **IntegraFB 30** boards manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 3 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

#### **ADVANTAGES**

High compressive strength Available in a wide variety of thicknesses and widths 100% recyclable material



Very High Compressive Strength Expanded Polystyrene Rigid Insulation

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>TM</sup>40 boards are composed of type 3 expanded polystyrene (EPS) rigid insulation and offer a compressive strength of 276 kPa (40 PSI).

#### **RECOMMENDED USE**

Install **IntegraFB 40** insulation boards when applications require a very high compressive strength insulating material. Ideal to insulate concrete footings of all types of construction and as an insulating material under pavement for road infrastructures and parking garage. Can also be used as insulating material underneath residential, commercial, industrial and agricultural concrete slabs.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm and 610 mm x 2438 mm (48" x 96" and 24" x 96")

Square joints by default. Ship lap joints available on two sides for 25 mm (1") thick panels. For panels with a minimum thickness of 38 mm (1-½"), ship lap joints available on two or four sides.

Thickness	U-Value	e / [R-value]
25 mm (1")	0.23	[R4.3]
38 mm (1½")	0.15	[R6.5]
51 mm (2")	0.12	[R8.6]
59 mm $(2^5/_{16}")$	0.10	[R10.0]
76 mm (3")	0.08	[R12.9]

#### **CERTIFICATION**

Warnock Hersey has certified the type 3 expanded polystyrene contained in **IntegraFB 40** boards manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 3 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

#### **ADVANTAGES**

Very high compressive strength Best compressive resistance per dollar Available in a wide variety of thicknesses and widths 100% recyclable material Integra®

Integra®

Integras



Type 3 Ultra-High Compressive Strength Expanded Polystyrene Rigid Insulation

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>™</sup>60 boards are composed of type 3 expanded polystyrene (EPS) rigid insulation and offer an ultrahigh compressive strength of 414 kPa (60 PSI).

#### **RECOMMENDED USE**

Install **IntegraFB**<sup>TM</sup>**60** insulation boards when applications require an ultra-high compressive strength insulating material. Ideal to insulate concrete footings of all types of construction, more specifically footings of concrete structures, as an insulating material under pavement for road infrastructures, paving stones and asphalt parking. Can also be used as insulating material underneath residential, commercial, industrial and agricultural concrete slabs.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm (48" x 96")

Square joints by default. Ship lap joints available on four sides.

Thickne	ss	U-value /	[R-value]
28 mm	$(1^3/_{32}")$	0.20	[R5.0]
55 mm	$(2^3/_{16}")$	0.10	[R10.0]
83 mm	(31/4")	0.07	[R15.0]
111 mm	$(4\frac{3}{8}")$	0.05	[R20.0]

#### **Special Order**

#### **CERTIFICATION**

Warnock Hersey has certified the type 3 expanded polystyrene contained in **IntegraFB<sup>TM</sup>60** boards manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 3 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is listed in the CCMC Registry of Product Evaluation under CCMC 13277-L.

#### **ADVANTAGES**

Highest compressive strength Available in a wide variety of thicknesses and widths 100% recyclable material



# IntegraFB<sup>™</sup> HydroPx

Type 2 or 3 Expanded Polystyrene Rigid Insulation (16, 20, 30, 40, and 60 psi)

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The **IntegraFB HydroPx** boards are produced with type 2 expanded polystyrene (EPS) rigid insulation (or type 3). The honeycomb-layout allows for incremental spacing of 76 mm (3") for accurate and secure placement of the hydronic tubing in both directions.

#### **RECOMMENDED USE**

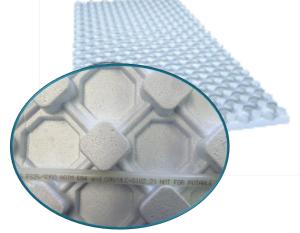
**IntegraFB HydroPx** boards are specifically designed for insulating hydronic radiant concrete floor's underside. Boards are available in several compressive strengths and densities. Recommended use in residential, commercial, industrial, agricultural, institutional, recreational (and many more applications such as driveways, pools, etc...).

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm (48" x 96") Ship Lap (four sides)

Available Thicknesses 16 20 30 40 60 64 mm [2-½"] R10 R10.5 R10.8 R10.8 R11.5

Highlighted area - special order



#### CERTIFICATION

Certified by Warnock Hersey, the IntegraFB HydroPx boards made of EPS type 2 (and type 3) are manufactured by StyroRail<sup>TM</sup> in accordance with the CAN/ULC-S701-11 and respectively listed in the CCMC's Registry of Product Evaluation, report No: CCMC 13271-L and CCMC 13277-L.

#### **ADVANTAGES**

Honeycomb-layout allows incremental spacing of 76 mm (3") in both directions
Various compressive strengths available, from 110 kPa to 414 kPa (16 PSI to 60 PSI)
Designed to firmly hold tubing in place for proper concrete consolidation around hydronic tubing
Eliminates wire mesh installation (where not required)
Insulates concrete floor for best thermal mass effect and heat retention / radiation
100% recyclable material

Permanent R-value - insulating value will not diminish over time



Type 2 Expanded Polystyrene Rigid Insulation with Integrated Wood Furring / Strapping

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION

The IntegraFB<sup>TM</sup> 16 STR panels are made of type 2 expanded polystyrene (EPS) rigid insulation with embedded 25 mm x 76 mm (1" x 3") wood furring / strapping located at every 406 mm (16") OC.

#### **RECOMMENDED USE**

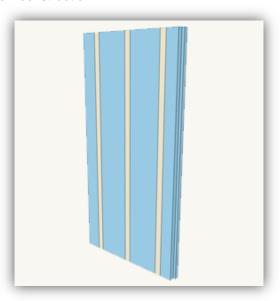
**IntegraFB16 STR** panels are very versatile and can be used in many applications requiring the fastening of finished material. Most common use on is on flat and cathedral ceilings (including dormers) which enables a continuous thermal envelope with abutting Integraspec ICF walls. Also, ideal for insulating exterior structures (balconies, overhangs, floor over garage, roof entries, etc). All must be covered with finishing material and or thermal barrier (where applicable). Suitable for renovation and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm	(48" x 96")
1219 mm x 2743 mm	(48" x 108")

Ship lap joints on two sides.

38 mm	(1-1/2")	R6.0
51 mm	(2")	R8.0
64 mm	(2-1/2")	R10.0
76 mm	(3")	R12.0
89 mm	(3-1/2")	R14.0
102 mm	(4")	R16.0



#### **CERTIFICATION**

Warnock Hersey has certified the type 2 expanded polystyrene contained in **IntegraFB16 STR** boards manufactured by StyroRail<sup>TM</sup> is in accordance with the CAN/ULC-S701-11 standard. The type 2 expanded polystyrene is also listed in the CCMC Registry of Product Evaluation under StyroRail<sup>TM</sup>, CCMC # 13271-L.

#### **ADVANTAGES**

Excellent moisture resistance

High energy efficiency

Furring / strapping and insulation installation in one step Variety of uses (foundations, walls, ceilings, floors)

Type 1 Expanded Polystyrene also available



# IntegraFB<sup>™</sup> Reflx

Graphite Expanded Polystyrene Rigid Insulation combined to a Vapor Barrier Reflective Membrane

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION MASTERFORMAT® # 07 26 13 ABOVE GRADE VAPOR RETARDERS

The **IntegraFB<sup>™</sup> Reflx** panels are composed of type 2 graphite expanded polystyrene rigid insulation (Neopor<sup>®</sup> EPS from BASF) laminated to a vapor barrier reflective membrane with a reflectivity rate of 83%.

#### **RECOMMENDED USE**

Install IntegraFB<sup>™</sup> Reflx panels on the interior surfaces of framework.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm (48" x 96") 1219 mm x 2477 mm (48" x 97½")

#### Two side ship lap joints.

25 mm (1") R4.8

#### **ADVANTAGES**

Higher insulating value per inch

Maximizes the R-value of the wall by reflection of heat

Time saving - combining insulation and vapor barrier installation steps

Reduces risk of mould within walls

Meets CAN/ULC S701-11 Standard

# TECHNICAL DATA PHYSICAL PROPERTIES

IntegraFB <sup>™</sup> Reflx	
Thermal Resistance Min.	RSI 0,84
(ASTM C518) Thickness of 25 mm (1")	(R4.75)
MVTR Max.	200 ng/Pa⋅s⋅m²
(ASTM E96)	(3.5 Perm)
Compressive Strength Min.	110 kPa
(ASTM D1621) 10% Deformation	(16 PSI)
Flexural Strength Min.	240 kPa
(ASTM C203)	(35 PSI)

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# IntegraFB<sup>™</sup> Reflx (cont.)

Water Absorption Max.	4 %
(ASTM D2842) Volume	
Dimensional Stability Max.	1.5 %
(ASTM D2126) Linear Variation	
Limiting Oxygen Index Min.	24 %
(ASTM D2863)	
Density Min.	20 kg/m <sup>3</sup>
(ASTM C303)	(1.2 lbs/ft <sup>3</sup> )
Flame Spread Rating	240
Neopor® (CAN/ULC \$102.2)	

Reflective Membrane*		
Thickness		1.1 mil.
Elasticity Limit		188mPa
		27 300 PSI
Sealing Temperature		104-121 <sup>o</sup> C
		220-250 <sup>O</sup> F
Friction Coefficient		0.4-0.5
(ASTM D1894) Face to Fa	ace	
Tensile Strength	MD**	148 mPa
(ASTM D882)		21 500 PSI
Tensile Strength		314 mPa
(ASTM D882)	CD	45 500 PSI
Elongation	MD**	200 %
(ASTM D882)		
Elongation		60 %
(ASTM D882)	CD	
Water Vapor Transmission	n Rate	0.016 ng/Pa⋅s⋅m²
(ASTM F1249)		(0.00028 US Perm)
Oxygen Transfer Rate		2.0 cc/100 in <sup>2</sup> /24h
(ASTM F2622)		

<sup>\*</sup> Average data provided by the reflective membrane manufacturer.

<sup>\*\*</sup> MD Machine Direction, CD Cross Machine Direction

IntegraFB <sup>™</sup> Reflx	
MVTR Max.	60 ng/Pa <sup>·</sup> s·m <sup>2</sup>
(ASTM E96)	(1.0 US Perm)



Expanded Polystyrene Rigid Insulation combined to a Vapor Barrier Reflective Membrane

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 FOAM BOARD INSULATION MASTERFORMAT® # 07 26 16 BELOW-GRADE VAPOR RETARDERS

The **IntegraFB RAD** boards are composed of type 1 expanded polystyrene (EPS) rigid insulation laminated to a vapor barrier reflective membrane having a reflectivity rate of 95%.

#### RECOMMENDED USE

Install **IntegraFB RAD** panels on the interior surface of foundation walls, the reflective surface towards an enclosed air space with furring. Suitable for renovation projects and new construction.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm (48" x 96")

Two side ship lap joints.

51 mm (2") R13.0 79 mm (31/8") R17.2\*



<sup>\*</sup> Effective R-value based on typical wall assembly (ASTM C1363): concrete wall 200 mm (8") with normal density aggregates, IntegraFB RAD, wood furring 25 mm x 76 mm (1"x3") at 600 mm (24") OC, gypsum 12.7 mm (½"), interior air film.

#### **CERTIFICATION**

Warnock Hersey has certified the type 1 expanded polystyrene contained in **IntegraFB RAD** boards manufactured by StyroRail<sup>TM</sup> are in accordance with the CAN/ULC-S701-11 standard. The type 1 expanded polystyrene manufactured by StyroRail<sup>TM</sup> is also listed in the CCMC Registry of Product Evaluation under CCMC 13276-L.

#### **ADVANTAGES**

Maximizes the R-value of the wall by reflecting heat

Time saving - insulation and vapor barrier in one application

Reduces risk of mould within walls

Reduces the risk of moisture condensation on the cold part of the concrete (interior application on the foundation) 100% recyclable material

Permanent R-value - does not diminish with time



## IntegraFB<sup>™</sup> RAD (cont.)

# TECHNICAL DATA PHYSICAL PROPERTIES

IntegraFB <sup>™</sup> RAD	
Thermal Resistance Min.	RSI 0,65
(ASTM C518) Thickness of 25 mm (1")	(R3.7)
MVTR Max.	300 ng/Pa⋅s⋅m²
(ASTM E96)	(5.24 US Perm)
Compressive Strength Min.	70 kPa
(ASTM D1621) 10% Deformation	(10 PSI)
Flexural Strength Min.	170 kPa
(ASTM C203)	(25 PSI)
Water Absorption Max.	6 %
(ASTM D2842) Volume	
Dimensional Stability Max.	1.5 %
(ASTM D2126) Linear Variation	
Limiting Oxygen Index Min.	24 %
(ASTM D2863)	
Density Min.	16 kg/m <sup>3</sup>
(ASTM C303)	(1.0 lbs/pi <sup>3</sup> )

Reflective Membrane*	
Thickness	6.0-7.0 mil.
Tensile Strength Min. (ASTM D882)	50 N/mm <sup>2</sup>
Elongation Min. (ASTM D882)	0.5%

<sup>\*</sup> Approximate data provided by the manufacturer.

#### **ENVIRONMENTAL DATA**

Expanded polystyrene boards are composed of 98% air and 2% plastic material. They are manufactured without HCFC, HFC gases, and / or HBCD flame retardant.

#### STORAGE AND COVERING

Store boards in a dry location, protected from the outside elements, ultraviolet rays, open flames or other sources of ignition. Stack boards on pallets of minimum 100 mm (4") above the ground. If provided packaging has been damaged during shipping, cover boards with a weather / ultraviolet cover. Boards must be dry and in good condition before installation.

To limit the color loss from UV exposure, cover the installed boards with an exterior cladding protecting from ultraviolet rays.

#### Integraspec and IntegraFB are trademarks of Integraspec Corp.



Expanded Polystyrene Rigid Insulation combined to an Air | Weather Barrier

#### **TECHNICAL DATA SHEET**

MASTERFORMAT® # 07 21 13.13 Foam Board Insulation MASTERFORMAT® # 07 27 23 Board Product Air Barriers

The IntegraFB<sup>TM</sup>16AIR boards are composed of type 2 expanded polystyrene (EPS) rigid insulation laminated to an air and weather barrier.

#### **RECOMMENDED USE**

Install **IntegraFB**<sup>TM</sup>**16AIR** panels on the exterior surface of framed walls in order to obtain a continuous thermal envelope, a barrier against potential air infiltration beneath the exterior siding and in order to limit unforeseen water infiltrations.

#### **AVAILABLE DIMENSIONS**

1219 mm x 2438 mm	(48" x 96")
1219 mm x 2743 mm	(48" x 108")

Ship lapped joints on two sides.

25 mm	(1")	R4.0
38 mm	(1-1/2")	R6.0
51 mm	(2")	R8.0
64 mm	(2-1/2")	R10.0
76 mm	(3")	R12.0



#### **CERTIFICATION**

Warnock Hersey has certified the type 2 expanded polystyrene contained in **IntegraFB**<sup>TM</sup>**16 AIR** boards manufactured by STYRORAIL<sup>TM</sup> in accordance with the CAN/ULC-S701-11 standard. The type 2 expanded polystyrene is listed in the CCMC Registry of Product Evaluation under STYRORAIL CCMC # 13271-L. The air and weather barrier contained in **IntegraFB**<sup>TM</sup>**16 AIR** boards is listed in the CCMC Registry of Product Evaluation under CCMC 13292-R and CCMC 13329-R.

#### CHARACTERISTICS

Complete air tightness – 100% sealed joints by the 4" overlaps on two sides Eliminates sealing tapes at joints
Continuous insulation – eliminating thermal bridges
Breathable membrane, allowing for moisture vapor to escape
Membrane pushes the water droplets towards the exterior
Meets CAN/ULC-S701-11 standard



# IntegraFB<sup>™</sup> AIR (cont.)

# TECHNICAL DATA PHYSICAL PROPERTIES

Thermal Resistance Min.	RSI 0,70
(ASTM C518) Thickness of 25 mm (1")	(R4.0)
MVTR Max.	200 ng/Pa⋅s⋅m²
(ASTM E96)	(3.5 US Perm)
Compressive Strength Min.	110 kPa
(ASTM D1621) 10% Deformation	(16 PSI)
Flexural Strength Min.	240 kPa
(ASTM C203)	(35 PSI)
Water Absorption Max.	4 %
(ASTM D2842) Volume	
Dimensional Stability Max.	1.5 %
(ASTM D2126) Linear Variation	
Limiting Oxygen Index Min.	24 %
(ASTM D2863)	
Density Min.	20 kg/m <sup>3</sup>
(ASTM C303)	(1.25 lbs/ft <sup>3</sup> )
Flame Spread Rating	145
Regular (CAN/ULC S102.2)	

Air and Weather Barrier Membrane*	
Tensile Strength	222 N
(ASTM D5034)	(50 lbsforce)
MD**	
Tensile Strength	178 N
(ASTM D5034)	(40 lbsforce)
CD**	
Tear Strength	89 N
(ASTM D4533)	(20 lbsforce)
MD**	
Tear Strength	68 N
(ASTM D4533)	(15 lbsforce)
CD**	

Mullen Burst Strength (ASTM D3786)	703 kPa
(ASTWIDS766)	(102 PSI)
Water Resistance – hydrostatic pressure	581 cm
(AATCC 127)	
MVTR	629 ng/Paˈsˈm²
(ASTM E96)	(11 US Perm)



### IntegraFB<sup>™</sup> AIR (cont.)

Fire Resistance	Class A
(ASTM E84)	
Air Permeance Max.	0.0014 L/s <sup>-</sup> m <sup>2</sup>
(ASTM E2178) @ 75 Pa	(0.003 cfm/ft <sup>2</sup> )
Low Temperature Flexibility	-50° C
(ASTM D1970)	Pass
Air porosity	>1800 seconds/100 cc
(TAPPI T460)	
UV Weathering	UV stabilizer added to coating and
	fabric for 6 months resistance

<sup>\*</sup> Data provided by the manufacturer

<sup>\*\*</sup> MD Machine Direction, CD Cross Machine Direction

IntegraFB <sup>™</sup> 16 AIR	
MVTR Min.	60 ng/Pa·s·m <sup>2</sup>
(ASTM E96)	(1.0 US Perm)

#### **ENVIRONMENTAL DATA**

Expanded polystyrene boards are composed of 98% air and 2% plastic material. They are manufactured without HCFC, HFC gases and HBCD flame retardant.

#### **STORAGE**

Store boards in a dry location, protected from the outside elements, ultraviolet rays, open flames or other sources of ignition. Stack boards on pallets of minimum 100 mm (4") above the ground.

#### **INSTALLATION**

Boards must be dry and in good condition before installation.

To limit the color loss from UV exposure, cover the installed boards with an exterior cladding protecting them from ultraviolet rays.

#### LIMITATIONS

Expanded polystyrene is combustible. Even if expanded polystyrene contains a flame retardant, limit use of open flame or ignition sources near product. A protective barrier or thermal barrier is required as specified in the appropriate building code.

Expanded polystyrene may be affected by some oil based solvents.

#### **EXEMPTION FROM LIABILITY**

The information herein is based on the present state of our best scientific and practical knowledge of the manufacturer. The user is responsible for checking the suitability of products for their intended use. It is the user's responsibility to obtain and to confirm the most recent version. Information contained in this data sheet may change without notice.

Integraspec and IntegraFB are trademarks of Integraspec Corp.

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### <u>IntegraProoF™</u>

#### **DESCRIPTION**

IntegraProoF<sup>™</sup> is a self-adhering waterproofing membrane composed of SBS modified bitumen and a tri-laminated woven polyethylene fabric. The under face craft paper is lined with a silicone release film for easy peeling.

IntegraProoF is specially designed and formulated for damproofing and waterproofing of IntegraSpec ICF below grade foundation walls.

#### RECOMMENDED SUBSTRATES

IntegraProoF is applied directly onto the IntegraSpec ICF.

#### SURFACE PREPARATION

Surface must be clean, free of dust, dry, and also even (use low expanding foam (gun foam), rasping to repair uneven or damaged EPS area). Surface does not require priming although, it is recommended to apply a strip of primer at the top start of the membrane (approx. 400 mm (16 in)) which will ensure proper bonding at the top. When special conditions requires a primer such as waterproofing or high concentration of dust, IntegraSpec recommends the use of the water-based ELASTOCOL STICK H<sub>2</sub>O primer for proper bonding of the membrane. Important: Never use a solvent-based primer as it will damage / dissolve the polystyrene surface and create permanent damage.

#### **INSTALLATION - SELF-ADHESIVE**

IntegraProoF membrane is installed by peeling off the backing craft paper progressively while adhering the membrane to the wall; it is highly recommended to install the membrane vertically. While installing/adhering the membrane, apply an even pressure over the entire surface of the membrane (a membrane roller is recommended to ensure proper adherence).

If needed, apply ELASTOCQL STICK H O primer at the rate of 0.1 to 0.3  $L/m^2$ . Allow primer to completely dry before adhering the membrane. Important: Membrane must be applied the same day as the primer.

Membrane edges must be overlapped a minimum of 75 mm (3 in) and end lap joints must be a minimum of 150 mm (6 in).

The top edge of the membrane may be sealed with a mastic/sealant such as SOPRASEAL LM 200 T, silicone or equivalent product compatible with polystyrene. Where the membrane meets the concrete footing, it's recommended to clean and primed the concrete footing so that membrane also adheres to the footing's covered portion. When required, install fasteners with 25-mm (1-inch) diameter washers at a distance of 38 mm (1 1/2 in) from the top end of the membrane and spaced at 450 mm (18 in) o.c maximum.

Application temperatures: All Seasons Grade: -10 to 40 °C (14 to 104 °F)

<u>Service temperatures</u>: Winter and Summer: -45 to 70 °C (-49 to 158 °F)





### IntegraProoF<sup>™</sup> (cont.)

#### **LIMITATION**

IntegraProoF is designed to be used as a waterproofing membrane for below grade application; it must be covered / backfilled once the installation is completed. Backfill inspection maybe required prior to backfilling, check with your local building department.

#### **PACKAGING**

Specifications	IntegraProoF	
Thickness	1.0 mm (40 mil)	
Dimensions	22.9 x 0.91 m (75 ft x 36 in)	
Weight	0.9 kg/m² (0.2 lb/ft²)	
Selvedge width	75 mm (3 in)	
Surface	Tri-laminated woven polyethylene	
Underface / craft paper	Lined with silicone release film	
Rolls per skid	30	

(All values are nominal)

PROPERTIES	STANDARDS	IntegraPROOF Membrane
Tensile Strength, MD/XD	ASTM D5147	11.3 / 15.4 kN/m (64 / 88 lbf/in)
Ultimate Elongation, MD/XD	ASTM D5147	52 / 24 %
Flexibility at Cold Temperature	ASTM D5147	-30°C (-22°F)
Static Puncture	ASTM D5602	400 N (90 lbf)
Tear Resistance, MD/XD	ASTM D5601	375 / 400 N (85 / 90 lbf)
Lap Adhesion	ASTM D1876	2000 N/m (11.4 lbf/in)
Peel Resistance	ASTM D903	3050 N/m (17.5 lbf/in)
Water Absorption	ASTM D5147	< 0.1 %
Water Vapour Permeance	ASTM E96 (Procedure B)	< 2.5 ng/Pa.s.m <sup>2</sup> (< 0.04 perm)
Termite Resistance	see Trinity/ERD report	Pass
	#S10030SC.04.08	

#### STORAGE AND HANDLING

Rolls must be stored upright. If the product is stored outdoors, cover rolls with opaque protective cover after the removal of the delivery package.

FOR MORE INFORMATION, PLEASE CONSULT YOUR INTEGRASPEC REPRESENTATIVE.

