



# InSoFast®

## X-Bracket System® by InSoFast®

The X-Bracket System revolutionizes the way exterior wall insulation is installed by allowing seamless installation of any spray foam or blown insulation while eliminating thermal bridging. Engineered with strength to withstand extreme wind loads and provide a cross-ventilated rain screen for long-lasting durability

### Features

- Continuous Insulation with Spray Foam or Blown Insulation
- No Thermal Bridging
- Ventilated Rainscreen
- Simple Installation Methods
- Durable Construction
- Increased Comfort

### Applications

- Framed Walls
- Concrete Walls
- Roof
- Floors
- Shipping Containers

### Insulation Options

- Closed-Cell Spray Foam
- Blown insulation (Dense Packed)

### Standards & Code Compliance

- IBC – 15, 18, 21: International Building Code®
- IRC – 15, 18, 21: International Residential Code®
- Approved by Miami-Dade County
- Approved by the Code of Federal Regulations
- Manufactured Home Construction and Safety Standards
- Code Evaluation by Dr J Engineering: Report No 2405-119 available at [www.drjcertification.org/ter/2405-119](http://www.drjcertification.org/ter/2405-119)

### Physical Properties

Property	Test Method	Value
Allowable Compressive Strength, lb (kg)	ASTM D5961	2,010 (911)
Allowable Tensile Strength, lb (kg)	ASTM D638	590 (267) <sup>1</sup>
Thermal Resistance, W/m·K	ASTM E1530	0.2
Maximum Service Temperature, °F (°C)	-	180 (82)
Minimum Install Temperature, °F (°C)	-	0 (-17)

(1) Refer to Allowable Loading table for allowable withdrawal loads.

### Allowable Loading

Substrate	Fastener	Test Method	Withdrawal, lb (kg)	Lateral, lb (kg)
Wood (SG = 0.42)	0.120 Ring Shank Nail (4)	ASTM D1761 ASTM D7332	215 (97)	325 (147)
	#8 or Larger Construction Screw (2)		330 (149)	342 (155)
CFS Stud <sup>1</sup>	#8-18, #10-18 or #12-18 x 1 1/4" Self-Drilling Screw (2)		250 (113)	110 (49)
Steel <sup>2</sup>	Loctite® PL Premium® 3X <sup>3</sup>	ASTM D1761	385 (174)	120 (54)
Concrete <sup>4</sup>	Loctite® PL Premium® 3X <sup>3</sup>		480 (217)	170 (77)
X-Bracket Top Face	#8 Construction Screw <sup>5</sup>		185 (83)	175 <sup>6</sup>
	#10 Construction Screw <sup>5</sup>	205 (92)	175 <sup>6</sup>	
	#12 Self-Drilling Screw <sup>5</sup>	190 (86)	175 <sup>6</sup>	

(1) Minimum 20-gauge, 33 ksi.

(2) Steel surface must be free of dust and oil. Follow manufacturer's instruction when using adhesive.

(3) Adhesive should be applied in a 3/8" bead around the perimeter of the glue surface of the X-Bracket. Alternatively, LaPage® PL Premium® 3X may be used.

(4) Concrete must be free of paint or other coatings. Follow manufacturer's instruction when using adhesive.

(5) Screws must penetrate at least 1" into the top face of the X-Bracket and must not be within 1/4" of the edge of the top face.

(6) Lateral loading of screws into the top face of the X-Bracket may be limited by the shear strength of the screw. It is also limited by the allowable lateral load of the attachment method to the substrate.



### Product Options

Product	SKU	Product Dimensions	Quantity Per Box	Approx. Coverage (sf) <sup>1</sup>
X-Bracket® 2.5	X-2.5	2.5" x 7.25" x 3.5"	50	150-330
X-Bracket® 3.75	X-3.75	3.75" x 7.25" x 3.5"	50	150-330
X-Bracket® 5.5 <sup>2</sup>	X-5.5	5.5" x 8.18" x 3.5"	50	150-330
X-Bracket® 7.5 <sup>2</sup>	X-7.5	7.5" x 8.88" x 3.5"	50	150-330
X-Bracket® 9.5 <sup>2</sup>	X-9.5	9.5" x 9.58" x 3.5"	50	150-330

(1) Coverage will vary based on bracket spacing and height of wall.

(2) Available fall 2025

**Allowable Cladding Weight and Wind Loading Based on Bracket Spacing**

Substrate	Fastener	Horizontal X-Bracket Spacing (in) <sup>1</sup>	Vertical X-Bracket Spacing (in) <sup>1</sup>	Allowable Cladding Weight (psf)	Allowable Wind Pressure (psf)	Basic Wind Speed (mph)			
						Exposure B	Exposure C	Exposure D	
Wood (SG = 0.42)	0.120 Ring Shank Nail (4)	16	24	120	56	181	155	144	
			36	80	38	149	128	118	
			48	58	28	128	110	102	
		24	24	79	38	149	128	118	
			36	52	25	121	104	96	
			48	38	19	105	90	84	
	#8 or Larger Construction Screw (2)	16	24	126	124	269	234	214	
			36	83	83	220	189	175	
			48	62	62	190	163	151	
		24	24	83	83	220	189	175	
			36	55	55	179	154	142	
			48	40	41	155	133	123	
	CFS Stud Minimum 20-gauge (33 ksi)	#8-18 x 1 1/4 " Self-Drilling Screw (2)	16	24	38	68	219	183	168
				36	25	45	178	149	137
				48	18	34	155	130	119
24			24	25	45	178	149	137	
			36	16	30	145	122	112	
			48	11	23	127	107	98	
#10-18 x 1 1/4 " Self-Drilling Screw (2)		16	24	38	83	242	203	186	
			36	25	55	197	165	151	
			48	18	41	170	142	130	
		24	24	25	55	197	165	151	
			36	16	37	161	135	124	
			48	11	28	140	118	108	
#12-18 x 1 1/4 " Self-Drilling Screw (2)		16	24	38	94	234	201	186	
			36	25	63	192	164	152	
			48	18	47	166	142	132	
		24	24	25	63	192	164	152	
			36	16	42	157	134	124	
			48	11	31	135	115	107	
Concrete <sup>2</sup>	Loctite® PL Premium® 3X <sup>3</sup>	16	24	61	180	324	278	257	
			36	40	120	265	227	210	
			48	29	90	229	197	182	
		24	24	42	120	265	227	210	
			36	26	80	216	185	172	
			48	19	60	187	160	149	
Steel <sup>4</sup>	Loctite® PL Premium® 3X <sup>3</sup>	16	24	43	144	290	249	230	
			36	28	96	237	203	188	
			48	20	72	205	176	163	
		24	24	30	96	237	203	188	
			36	18	64	193	166	153	
			48	13	48	168	144	133	

(1) Horizontal and vertical spacings can be interchanged if horizontal furring strips are used. **Additional spacings available with higher wind loads – See Table 3 in Dr J Code Compliance Report.**

(2) Concrete must be free of paint or other coatings. Follow manufacturer's instruction when using adhesive

(3) Adhesive should be applied in a 3/8" bead around the perimeter of the glue surface of the X-Bracket. Alternatively, LaPage® PL Premium® 3X may be used.

(4) Steel surface must be free of dust and oil. Follow manufacturer's instruction when using adhesive.

### Technical Information

- InSoFast® X-Brackets® are non-structural materials and must be installed on framing that is independently braced and structurally adequate to meet required construction and service loading conditions.
- Approved adhesives for attaching InSoFast® X-Brackets InSoFast® to concrete or steel substrates are Loctite® PL Premium® 3X and LaPage® PL Premium® 3X. No other adhesives are approved for this application.
- All construction should be evaluated for the necessity to provide vapor retarders. See ASHRAE Handbook of Fundamentals.

### Warranty and Disclaimer of Liability

The InSoFast® X-Bracket System® is warranted to be free from manufacturing defects arising from workmanship or defects in material which may cause the InSoFast® X-Brackets® to be unusable in insulated wall assemblies. This warranty is effective only if the InSoFast® X-Brackets® are installed in accordance with the Installation Manual, or any other installation instruction or guidelines published by InSoFast®, LLC, and local building codes, and only if InSoFast®, LLC has received written notice of defects within 30 days of the first discovery of a defect but in any event no later than within one year of the date of shipment by InSoFast®, LLC. EXCEPT AS EXPRESSLY SET FORTH ABOVE, INSOFAST®, LLC MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING, WITHOUT LIMITATION, THE WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No person has any authority to bind InSoFast®, LLC to any affirmation, representation, or warranty concerning InSoFast® panels except as stated in this Manufacturer's Warranty. InSoFast®, LLC's liability and the purchaser's sole and exclusive remedy from alleged defects in the materials or manufacturing of the InSoFast® X-Bracket System® shall be limited to the replacement of an equivalent amount of product or a refund of the invoice charged up to the manufacturer's suggested retail price (as InSoFast®, LLC may elect) if payment has been made. In no event shall InSoFast®, LLC be liable for any consequential or incidental damages, losses, costs, or expenses of any person of any kind (including without limitation, loss of profits or injury to credit, reputation, or goodwill) directly or indirectly resulting from any alleged breach of warranty contained in this Manufacturer's Warranty.

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