



NVELOPE Thermally Broken Cladding Support Systems

Essential to architects and installers

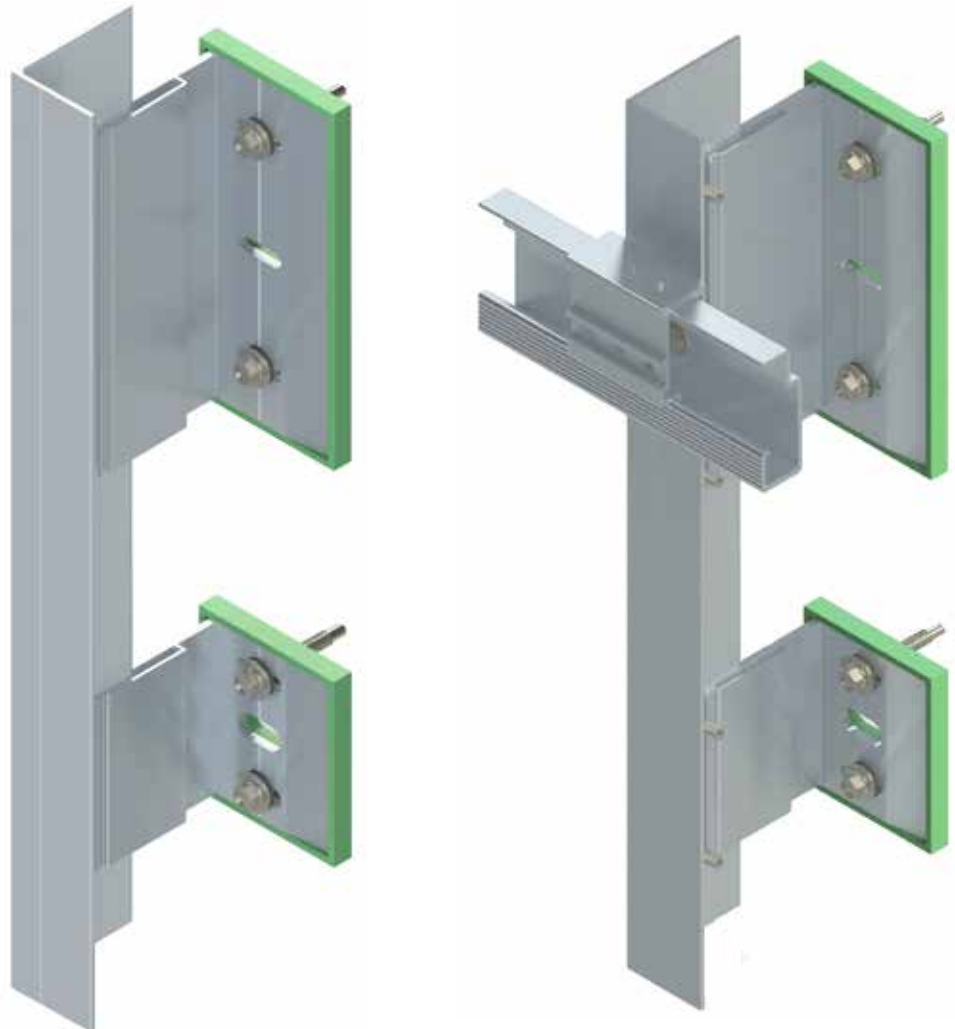
NVELOPE thermally broken rainscreen support systems

There are many characteristics that any cladding support system must have to meet today's building requirements. Demanding energy standards and building codes that need to be met create design problems to overcome.

With NVELOPE thermally broken cladding support systems, you can:

Tick all the boxes

- ✓ Structurally sound
- ✓ Thermally predictable
- ✓ Safe in a fire
- ✓ Suitable for most cladding types
- ✓ Easy to install/adjust
- ✓ Cost effective
- ✓ Wide range of cavity depths





Sustainability

Our green credentials

Bridging the thermal gap

Emphasis on the performance of the building details and additional losses through linear thermal bridging is paramount. Thermal bridging is the coupling of wall elements that work to transfer valuable energy into and out of the system. Since the attachment of ventilated cladding must go through the thermal insulation into the substrate, this cannot be avoided.

NVELOPE NV and NH brackets provide for the thermal decoupling of the substructure from the ventilated facade through thermal separation layers. The brackets are pre-assembled with thermal isolators which help reduce thermal bridging. In addition, Nvelope isolators prevent a chemical reaction from occurring between the aluminum brackets and the lime in the concrete frame as well as bimetallic corrosion between steel and aluminum.



Aluminum

All of our brackets are produced from sustainable aluminum and are fully recyclable.

Red List Free

NVELOPE thermally broken cladding support system is Red List Free. Visit the International Living Future Institute (ILFI), for the complete NVELOPE Declare label details.

Performance in fire

NVELOPE cladding support brackets and rails are made of non-combustible, sustainable aluminum, which does not burn.

NVELOPE cladding attachment systems will not detract from approved NFPA 285 wall designs. Evaluation conducted by independent third party.

NVELOPE Isolator

- Featured as standard on all NVELOPE brackets
- Pre-fastened isolators enable quick bracket assembly
- Flame retardant polypropylene copolymer
- Recyclable/ecologically friendly
- Low thermal conductivity passive house application



NVELOPE brackets, rails and systems

NV1 – Vertical face fastened system

Adjustable main support system for vertical rainscreen cladding applications. Mechanical face fastened panels.



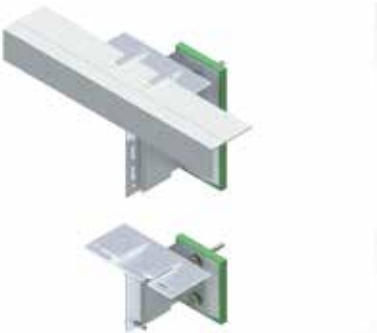
NV3 – Hidden mechanical fastened system

Adjustable system for hidden fastened applications. Cladding panels mechanically attached.



NH2 – Vertical to horizontal adaptor

The NH2 adaptor allows to convert an NV1 vertical system to a horizontal system.



Brackets

The system's backbone

NVELOPE vertical brackets are the backbone of all NVELOPE cladding systems. Available in standard height dimensions of 40–300 mm (1.85" to 13"), there are two size categories – single and double. Single brackets allow the facade to "float" on the sub-construction by absorbing wind load and allowing for expansion and contraction. Double brackets support both vertical weight loads and horizontal wind loads. Brackets are specifically designed for attachment to steel, concrete or wood substructures.

Bracket features

Adjustability

Bracket "helping hand" allows for rail insertion depth up to 1.5" max, which ensures that facade panels are plumb and true, thus eliminating the need for shims.

Fast & easy to install

The "helping hand" bracket holds the rail in place to allow up to 50 % faster install.

Thermal efficient

Thermal spacer provides thermal break to reduce energy loss through wall assembly.

Basic specs

Material

Manufactured from extruded aluminum alloy 6005A-T6

Material spacer

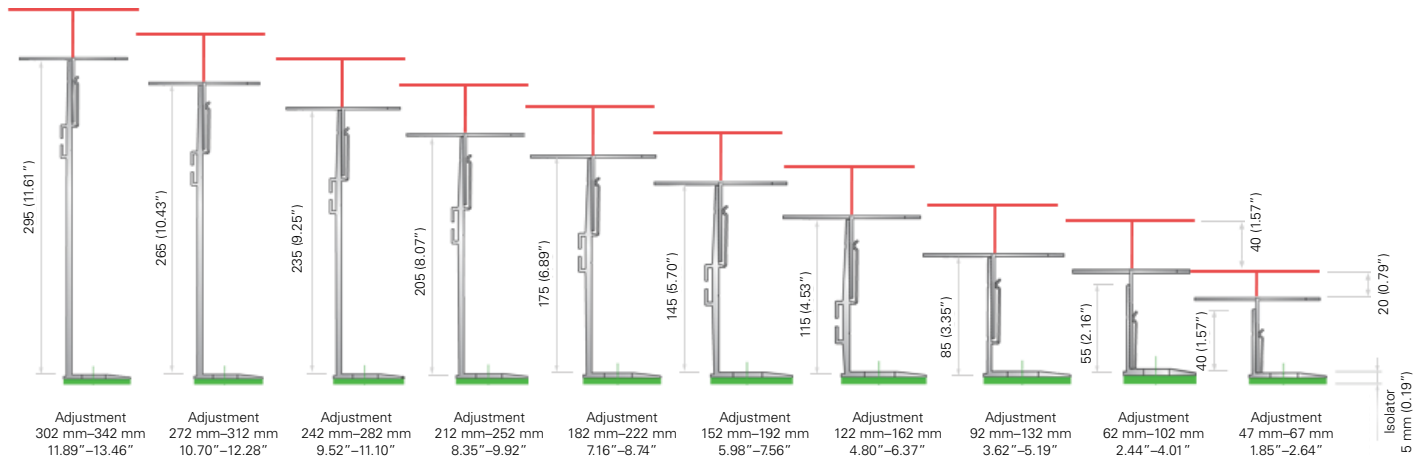
Polypropylene (green)

Approvals

British Board of Agreement (BBA) – 09/4678



Bracket range



Bracket selection

Single bracket

For steel, wood, concrete or filled CMU substrate - 2 x 6.5 mm slot, 1 x 11 mm slot

Material No.	Size		Product Code	Range of Adjustment (Single/Double)				2 x 6.5 mm slot 1 x 11 mm slot
	(mm)	(in)w		Minimum		Maximum		
				(mm)	(in)	(mm)	(in)	
1582505	40	1.57	NV-VB040S	47	1.85	67	2.64	
1582506	60	2.36	NV-VB060S	62	2.44	102	4.01	
1582508	90	3.54	NV-VB090S	92	3.62	132	5.19	
1582509	120	4.72	NV-VB120S	122	4.80	162	6.37	
1582510	150	5.90	NV-VB150S	152	5.98	192	7.56	
1582511	180	7.08	NV-VB180S	182	7.16	222	8.74	
1582512	210	8.26	NV-VB210S	212	8.35	252	9.92	
1582514	240	9.44	NV-VB240S	242	9.52	282	11.10	
1582517	270	10.62	NV-VB270S	272	10.70	312	12.28	
1582520	300	11.81	NV-VB300S	302	11.89	342	13.46	

Double bracket

For steel or wood substrate - 3 x 6.5 mm slot

Material No.	Size		Product Code	Range of Adjustment (Single/Double)				3 x 6.5 mm slot
	(mm)	(in)		Minimum		Maximum		
				(mm)	(in)	(mm)	(in)	
1521239	40	1.57	NV-VB040D-6.5	47	1.85	67	2.64	
1521247	60	2.36	NV-VB060D-6.5	62	2.44	102	4.01	
1521255	90	3.54	NV-VB090D-6.5	92	3.62	132	5.19	
1521263	120	4.72	NV-VB120D-6.5	122	4.80	162	6.37	
1521273	150	5.90	NV-VB150D-6.5	152	5.98	192	7.56	
1521282	180	7.08	NV-VB180D-6.5	182	7.16	222	8.74	
1521291	210	8.26	NV-VB210D-6.5	212	8.35	252	9.92	
1521300	240	9.44	NV-VB240D-6.5	242	9.52	282	11.10	
1521309	270	10.62	NV-VB270D-6.5	272	10.70	312	12.28	
1521317	300	11.81	NV-VB300D-6.5	302	11.89	342	13.46	

Double bracket

For concrete/filled CMU substrate - 3 x 11 mm slot

Material No.	Size		Product Code	Range of Adjustment (Single/Double)				3 x 11 mm slot
	(mm)	(in)		Minimum		Maximum		
				(mm)	(in)	(mm)	(in)	
1521238	40	1.57	NV-VB040D-11	47	1.85	67	2.64	
1521246	60	2.36	NV-VB060D-11	62	2.44	102	4.01	
1521254	90	3.54	NV-VB090D-11	92	3.62	132	5.19	
1521262	120	4.72	NV-VB120D-11	122	4.80	162	6.37	
1521272	150	5.90	NV-VB150D-11	152	5.98	192	7.56	
1521281	180	7.08	NV-VB180D-11	182	7.16	222	8.74	
1521290	210	8.26	NV-VB210D-11	212	8.35	252	9.92	
1521299	240	9.44	NV-VB240D-11	242	9.52	282	11.10	
1521308	270	10.62	NV-VB270D-11	272	10.70	312	12.28	
1521316	300	11.81	NV-VB300D-11	302	11.89	342	13.46	

Rails and hangers

The cladding support system

L rails

Material No.	Product Code	Description
1549133	NV-L60-40-2.5-3000	L Profile 60 x 40 x 2.5 x 3000 mm (118.11")
1582484	NV-L60-40-2.5-6000	L Profile 60 x 40 x 2.5 x 6000 mm (236.22")



T rails

Material No.	Product Code	Description
1582485	NV-T40-100-2.5-3000	T Profile 40 x 100 x 2.5 x 3000 mm (118.11")
1582486	NV-T40-100-2.5-6000	T Profile 40 x 100 x 2.5 x 6000 mm (236.22")
1582487	NV-T60-080-2.5-3000	T Profile 60 x 80 x 2.5 x 3000 mm (118.11")
1582488	NV-T60-080-2.5-6000	T Profile 60 x 80 x 2.5 x 6000 mm (236.22")
1549134	NV-T60-100-2.5-3000	T Profile 60 x 100 x 2.5 x 3000 mm (118.11")
1582489	NV-T60-100-2.5-6000	T Profile 60 x 100 x 2.5 x 6000 mm (236.22")
1582490	NV-T60-120-2.5-3000	T Profile 60 x 120 x 2.5 x 3000 mm (118.11")
1582501	NV-T60-120-2.5-6000	T Profile 60 x 120 x 2.5 x 6000 mm (236.22")
1582502	NV-T60-140-2.5-3000	T Profile 60 x 140 x 2.5 x 3000 mm (118.11")
1582504	NV-T60-140-2.5-6000	T Profile 60 x 140 x 2.5 x 6000 mm (236.22")



Omega rails

Material No.	Product Code	Description
1521393	NV-OM-25-120-2.4-3000	25 mm Omega 25 x 120 x 2.4 x 3000 mm (118.11")
1521394	NV-OM-25-120-2.4-6000	25 mm Omega 25 x 120 x 2.4 x 6000 mm (236.22")
1521396	NV-OM-25-140-2.4-3000	40 mm Omega 25 x 140 x 2.4 x 3000 mm (118.11")
1521397	NV-OM-25-140-2.4-6000	40 mm Omega 25 x 140 x 2.4 x 6000 mm (236.22")



Black powder coating or anodizing available upon request.

Z rails

Material No.	Product Code	Description
1521448	NV-Z25-45-30-2.4-3000	25mm Zed 45 x 25 x 30 x 2.4 x 3000 mm (118.11")
1521449	NV-Z25-45-30-2.4-6000	25mm Zed 45 x 25 x 30 x 2.4 x 6000 mm (236.22")
1521450	NV-Z25-55-30-2.4-3000	40mm Zed 45 x 40 x 30 x 2.4 x 3000 mm (118.11")
1521451	NV-Z25-55-30-2.4-6000	40mm Zed 45 x 40 x 30 x 2.4 x 6000 mm (236.22")



NV3 rails and hangers

Material No.	Product Code	Description
1521331	NV-CP-NV3-3000	Carrier Profile NV3 System x 3000 mm (118.11")
1521334	NV-CP-NV3-6000	Carrier Profile NV3 System x 6000 mm (236.22")



Black powder coating or anodizing available upon request.

Material No.	Product Code	Description	Hole
TUF-S*			
1549012	NV-NV3-TUF-S-ADJF-3.5MM	NV3 leveling/locking hanger 3.5 mm thick	3 round holes 6.5 mm
1549015	NV-NV3-TUF-S-STAT-3.5MM	NV3 static hanger 3.5 mm thick	3 round holes 6.5 mm
1549046	NV-NV3-TUF-S-ADJF-5MM	NV3 leveling/locking hanger 5 mm thick	3 round holes 6.5 mm
1549047	NV-NV3-TUF-S-STAT-5MM	NV3 static hanger 5 mm thick	3 round holes 6.5 mm
Keil**			
1521454	NV-NV3-KEIL-ADJF	NV3 leveling/locking hanger	1 Keil anchor hole
1521456	NV-NV3-KEIL-STAT	NV3 static hanger	1 Keil anchor hole
PTS**			
1521457	NV-NV3-PTS-ADJF	NV3 fixed leveling hanger	2 PTS 6.5 mm holes
1521459	NV-NV3-PTS-STAT	NV3 static hanger for HPL	2 PTS 6.5 mm holes
Tergo**			
1521464	NV-NV3-TER-80-ADJF	NV3 leveling/locking hanger 80 mm	2 Tergo (square) holes
1521465	NV-NV3-TER-ADJF	NV3 leveling/locking hanger	1 Tergo (square) hole
1521468	NV-NV3-TER-STAT	NV3 static hanger	1 Tergo (square) hole
Tergo Plus**			
1521469	NV-NV3-TER-TEC-ADJF	NV3 leveling/locking hanger	1 Tergo plus (round) hole
1521470	NV-NV3-TER-TEC-STAT	NV3 static hanger	1 Tergo plus (round) hole



*Anchors available from SFS.

**Anchors not available from SFS.

Fasteners for support systems

Bracket to steel substrate

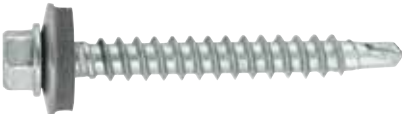
#14 x 2" 300SS bi-metal self-drill
Material No.: 1557912



Fastener material: 300 stainless with carbon drill point (bi-met)
Diameter: 1/4" diameter
Length: 2" length
Maximum grip range: 1.33" (34 mm) (stainless steel length)
Drill capacity: 0.118" (3 mm) steel

Bracket to wood substrate

#14 x 2-1/6" 300SS bi-metal self-drill
Material No.: 1544250



Fastener material: 300 stainless with carbon drill point (bi-met)
Diameter: #14 diameter
Length: 2-1/6" length

Rail to rail, bracket to rail, and bracket to NH2 adapter

#12 x 7/8" 316SS self-drill
Material No.: 1544263



Fastener material: 316 stainless steel
Diameter: #12 (5.5 mm)
Length: 7/8" (22 mm)
Maximum grip range: 0.315" (8 mm)
Drill capacity: 1/96" (8 mm)

Bracket to concrete substrate

3/8" dia. 304SS bi-metal Type B; length 3"
Material No.: 1677827



Fastener material: 304 stainless with carbon steel helical-coil thread brazed into leading threads of the anchor shank
Diameter: 3/8" diameter
Length: 3"

NV3 hanger to rail panel locking

#12 x 1-5/8" 304SS bi-metal self-drill
Material No.: 1553924



Fastener material: 304 stainless steel (A2)
Diameter: #12 (5.5 mm)
Length: 1-5/8"
Maximum grip range: 0.826"
Drill capacity: 0.060-0.157"

NV3 hanger to rail panel adjustment

M6 x 3/4" Machine screw
Material No.: 1521489



Fastener material: 304 stainless steel (A2)
Diameter: M6
Length: 20 mm (3/4")

NH2 Vertical to horizontal adaptor

Material no.	Product code	Description
1521326	NV-V-H-ADP	vertical to horizontal adaptor



Accessories

Material no.	Product code	Description
1521187	NV-EX-PC-150	Extension piece double 150 mm
1521188	NV-EX-PC-75	Extension piece single 75 mm
1521322	NV-VB-40-D-ISO	Thermal isolators for 40 mm double bracket
1521323	NV-VB-40-S-ISO	Thermal isolators for 40 mm single bracket
1521324 (optional)	NV-VB-D-ISO	Thermal isolators double bracket (clip on) - not for 40 mm
1521325 (optional)	NV-VB-S-ISO	Thermal isolators single bracket (clip on) - not for 40 mm



Design and installation support



For Architects

Quality and innovation

Quality. Safety. Economy. Choice. NVELOPE understands the modern architect. We develop systems for the ever changing face of facade design. NVELOPE products cope with your demands for more flexible and economical cladding solutions. Easy to specify and able to support most key facade manufacturers' materials, our products provide the solutions you need with new build, renovation, steel, wood and concrete substructures, to any height.

- Design details
- Component drawings
- Shop drawings & engineering
- 3-part CSI Specifications
- Structural, fire and thermal reports
- Declare label red list free – living building challenge

For Installers

Delivering a complete cladding systems service

Service. Fast. Experience. Price. We understand and empathize with the modern installer of cladding systems and the building envelope. Knowledge acquired from our years of service has enabled us to establish a full support program specifically for rainscreen cladding installers using our products. Our support staff is always available and able to assist with current stock availability, price and technical information.

- Installation guides
- Animated configuration videos
- On-site startup support and training available

Fasteners for cladding attachment

SX3-D12 Stainless self-drill

Ideal for cladding panels (HPL, fiber cement, others) to aluminum or steel



SX3-D16 Stainless self-drill

Ideal for cladding panels (HPL, fiber cement, others) to aluminum or steel



#10-12 Bi-met 300® self-drill

Ideal for cladding panels (HPL, fiber cement, others) to aluminum or steel



TDA-S-D16 Stainless Type A

Ideal for cladding panels (HPL, fiber cement, others) to aluminum or steel



AP16 Aluminum rivet

Ideal for cladding panels (HPL, fiber cement, others) to aluminum



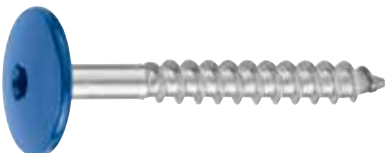
SSO-D15 Stainless 316 rivet

Ideal for cladding panels (HPL, fiber cement, others) to aluminum, metal, or stainless steel



TW-S D12 Stainless self-tapping

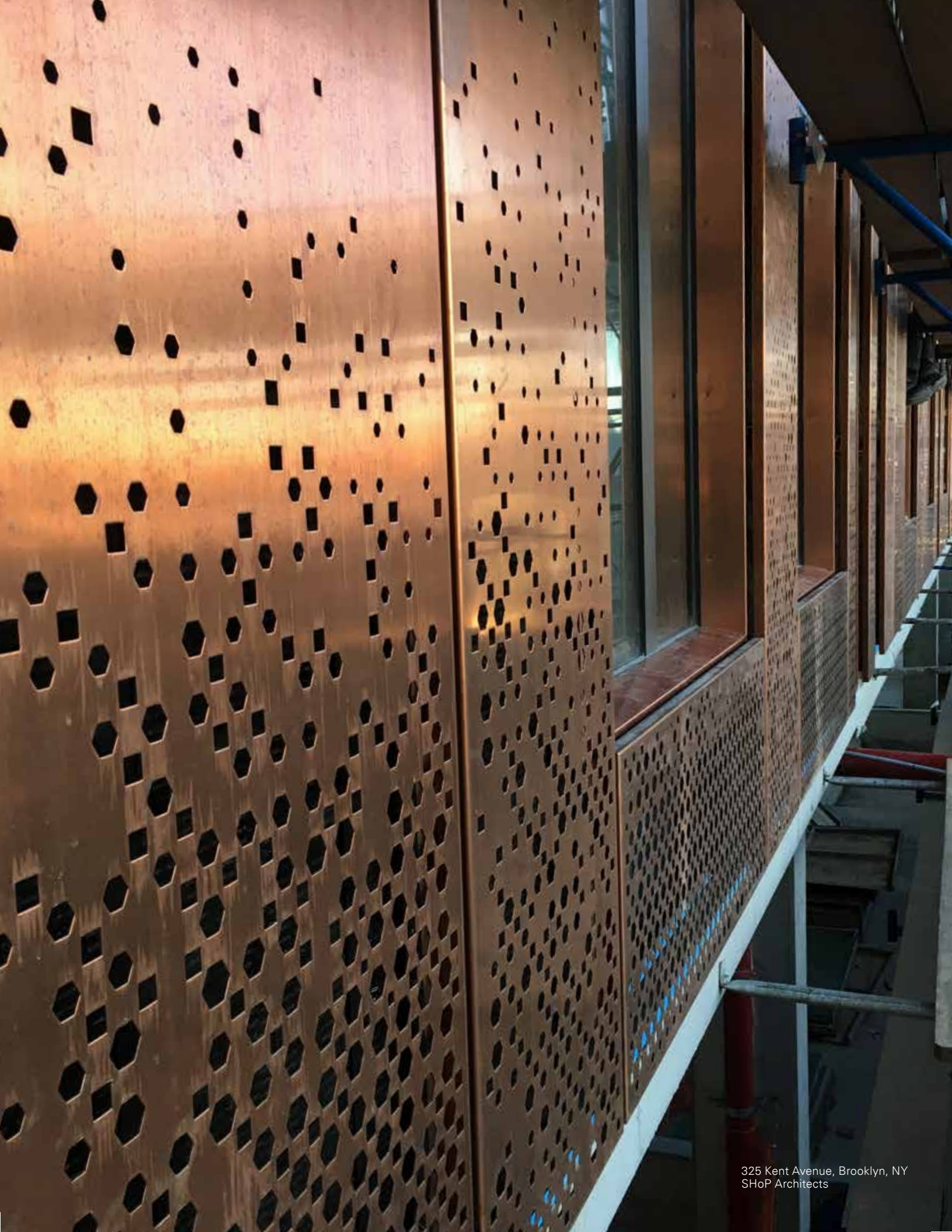
Ideal for cladding panels (HPL, fiber cement, others) to wood



TU/TUF/TUC Hidden fastener

Fastener for HPL, fiber cement, or fiber concrete panels







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