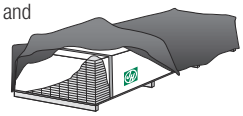
HardiePlank® Lap Siding

EFFECTIVE SEPTEMBER 2019

IMPORTANT: FAILURE TO FOLLOW JAMES HARDIE WRITTEN INSTALLATION INSTRUCTIONS AND COMPLY WITH APPLICABLE BUILDING CODES MAY VIOLATE LOCAL LAWS, AFFECT BUILDING ENVELOPE PERFORMANCE AND MAY AFFECT WARRANTY COVERAGE. FAILURE TO COMPLY WITH ALL HEALTH AND SAFETY REGULATIONS WHEN CUTTING AND INSTALLING THIS PRODUCT MAY RESULT IN PERSONAL INJURY. BEFORE INSTALLATION, CONFIRM YOU ARE USING THE CORRECT HARDIEZONE® PRODUCT INSTRUCTIONS BY VISITING HARDIEZONE.COM OR CALL 1-866-942-7343 (866-9-HARDIE)

STORAGE & HANDLING:

Store flat and keep dry and covered prior to installation. Installing siding wet or saturated may result in shrinkage at butt joints. Carry planks on edge. Protect edges and corners from breakage. James Hardie is not responsible for damage caused by improper storage and handling of the product.



⚠ CUTTING INSTRUCTIONS

OUTDOORS

1. Position cutting station so that airflow blows dust away from the user and others near the cutting area.
2. Cut using one of the following methods:
   - a. Best: Circular saw equipped with a HardieBlade® saw blade and attached vacuum dust collection system. Shears (manual, pneumatic or electric) may also be used, not recommended for products thicker than 7/16 in.
   - b. Better: Circular saw equipped with a dust collection feature (e.g. Roan® saw) and a HardieBlade saw blade.
   - c. Good: Circular saw equipped with a HardieBlade saw blade.

INDOORS

DO NOT grind or cut with a power saw indoors. Cut using shears (manual, pneumatic or electric) or the score and snap method, not recommended for products thicker than 7/16 in.

- DO NOT dry sweep dust; use wet dust suppression or vacuum to collect dust.
- For maximum dust reduction, James Hardie recommends using the "Best" cutting practices. Always follow the equipment manufacturer's instructions for proper operation.
- For best performance when cutting with a circular saw, James Hardie recommends using HardieBlade® saw blades.
- Go to jameshardiepros.com for additional cutting and dust control recommendations.

IMPORTANT: The Occupational Safety and Health Administration (OSHA) regulates workplace exposure to silica dust. For construction sites, OSHA has deemed that cutting fiber cement with a circular saw having a blade diameter less than 8 inches and connected to a commercially available dust collection system per manufacturer's instructions results in exposures below the OSHA Permissible Exposure Limit (PEL) for respirable crystalline silica, without the need for additional respiratory protection.

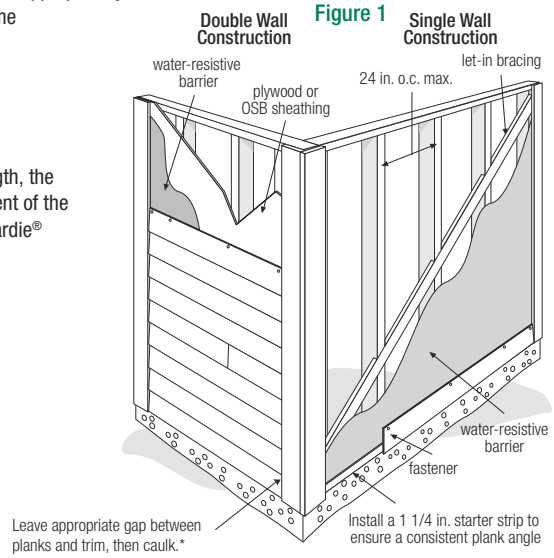
If you are unsure about how to comply with OSHA silica dust regulations, consult a qualified industrial hygienist or safety professional, or contact your James Hardie technical sales representative for assistance. James Hardie makes no representation or warranty that adopting a particular cutting practice will assure your compliance with OSHA rules or other applicable laws and safety requirements.

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Please see additional handling requirements on page 4.

GENERAL REQUIREMENTS:

- References to the 2015 National Building Code (NBC) of Canada are made throughout this document. Local building code requirements may supersede the NBC in some locations.
- Where local building code requires a capillary break (Rainscreens, Furring, Etc.), fastener specifications per the CCMC can still be used as long as the required fastener penetration is achieved into an approved nailable substrate.
- HardiePlank® lap siding can be installed over braced wood or steel studs, 20 gauge (0.836 mm) minimum to 16 gauge (1.367 mm) maximum, spaced a maximum of 610mm (24 in) o.c. or directly to minimum 11.1mm (7/16 in) thick OSB sheathing*. See general fastening requirements. Irregularities in framing and sheathing can mirror through the finished application. HardiePlank lap siding can also be installed over furring strips (in accordance with local building code requirements).
- Information on installing James Hardie products over non-nailable substrates (ex: gypsum, foam,etc.) can be located in JH Tech Bulletin 19 at www.jamehardie.com
- A water-resistive barrier is required in accordance with Part 9.27.3.2 of the NBC. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with Part 9.27.3 of the NBC. James Hardie will assume no responsibility for water infiltration.
- Adjacent finished grade must slope away from the building in accordance with local building codes.
- Do not use HardiePlank® lap siding in Fascia or Trim applications.
- Do not install James Hardie products, such that they may remain in contact with standing water.
- HardiePlank lap siding may be installed on flat vertical wall applications only.
- For larger projects, including commercial and multi-family projects, where the span of the wall is significant in length, the designer and/or architect should take into consideration the coefficient of thermal expansion and moisture movement of the product in their design. These values can be found in Technical Bulletin #8 "Expansion Characteristics of James Hardie® Siding Products" at www.JamesHardie.com.
- James Hardie Building Products may be installed on buildings with a maximum mean roof height of 25.9 m (85 ft).

Figure 1

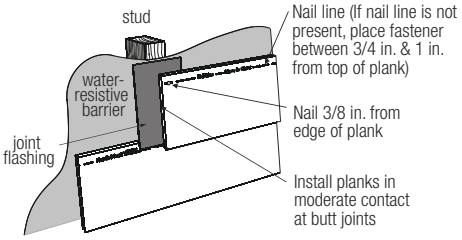


INSTALLATION: JOINT TREATMENT

One or more of the following joint treatment options are required by code *(as referenced 2009 IRC R703.10.2)*

A. Joint Flashing (James Hardie recommended)
B. Caulking* (Caulking is not recommended for ColorPlus for aesthetic reasons as the Caulking and ColorPlus will weather differently. For the same reason, do not caulk nail heads on ColorPlus products.)
C. "H" jointer cover

Figure 2



Note: Field painting over caulking may produce a sheen difference when compared to the field painted PrimePlus. *Refer to Caulking section in these instructions.

CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

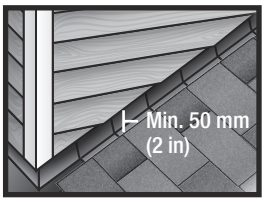


Figure 4
Horizontal Flashing

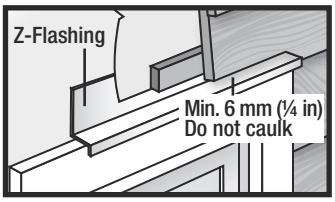


Figure 5
Kickout Flashing

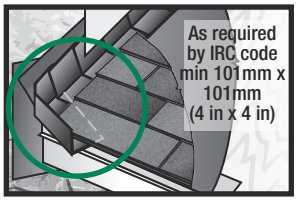


Figure 6
Slabs, Path, Steps to Siding

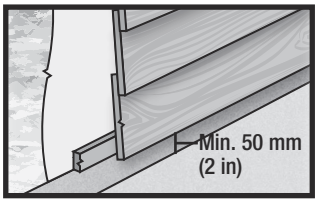


Figure 7
Deck to Wall

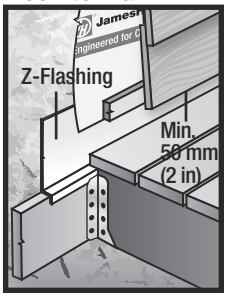


Figure 8
Ground to Siding

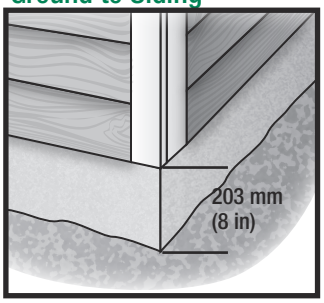


Figure 9
Gutter to Siding

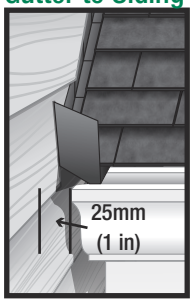


Figure 10
Sheltered Areas

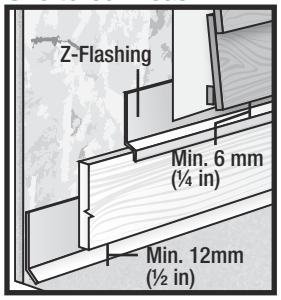


Figure 11
Mortar/Masonry

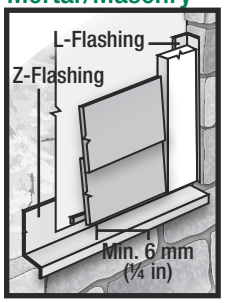


Figure 12
Drip Edge

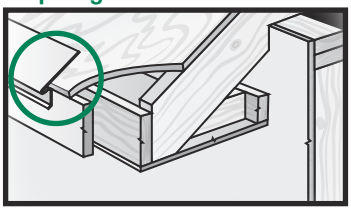


Figure 13
Block Penetration

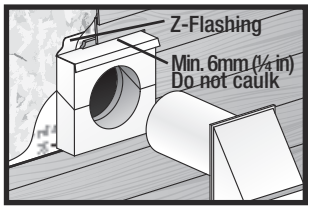
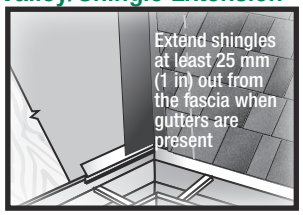


Figure 14
Valley/Shingle Extension



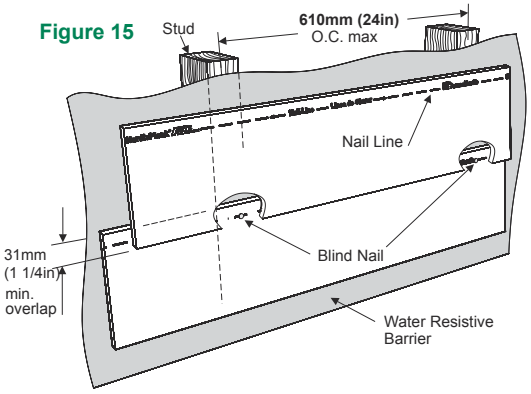
FASTENER REQUIREMENTS**

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair). **For Fastening schedule refer to Wind Load Table on page 5 of this document.**

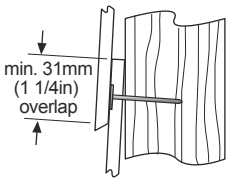
BLIND NAILING & FACE NAILING

See Wind Load Table (page 5) for fastener options

Figure 15

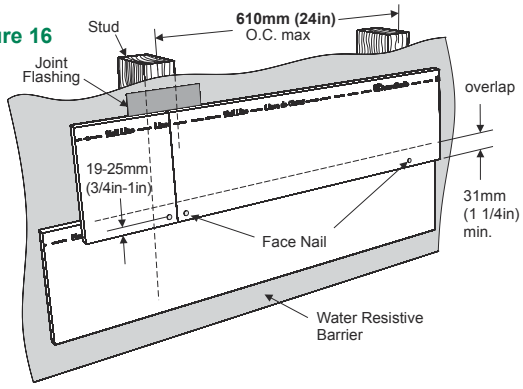


Minimum overlap for Both Face and Blind Nailing



Laminate sheet to be removed immediately after installation of each course for ColorPlus® products.

Figure 16



Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 25mm (1 in.) from plank ends and 19mm (3/4 in.) from plank edge into min. 9.5mm (3/8 in.) wood structural panel. Pin-backs are not a substitute for blind or face nailing.

*Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 5 - Fastening Tips for HardiePlank Lap Siding.

GENERAL FASTENING REQUIREMENTS

Fasteners must be corrosion resistant, galvanized, or stainless steel. Electro-galvanized are acceptable but may exhibit premature corrosion. James Hardie recommends the use of quality, hot-dipped galvanized nails. James Hardie is not responsible for the corrosion resistance of fasteners. Stainless steel fasteners are recommended when installing James Hardie® products near the ocean, large bodies of water, or in very humid climates.

Manufacturers of ACQ and CA preservative-treated wood recommend spacer materials or other physical barriers to prevent direct contact of ACQ or CA preservative-treated wood and aluminum products. Fasteners used to attach HardieTrim Tabs to preservative-treated wood shall be of hot dipped zinc-coated galvanized steel or stainless steel and in accordance to 2009 IRC R317.3 or 2009 IBC 2304.9.5

- Consult applicable product evaluation or listing for correct fasteners type and placement to achieve specified design wind loads.
- NOTE: Published wind loads may not be applicable to all areas where Local Building Codes have specific jurisdiction. Consult James Hardie Technical Services if you are unsure of applicable compliance documentation.
- Drive fasteners perpendicular to siding and framing.
- Fastener heads should fit snug against siding (no air space).
- NOTE: Whenever a structural member is present, HardiePlank should be fastened with even spacing to the structural member. The tables allowing direct to OSB or plywood should only be used when traditional framing is not available.

CUT EDGE TREATMENT

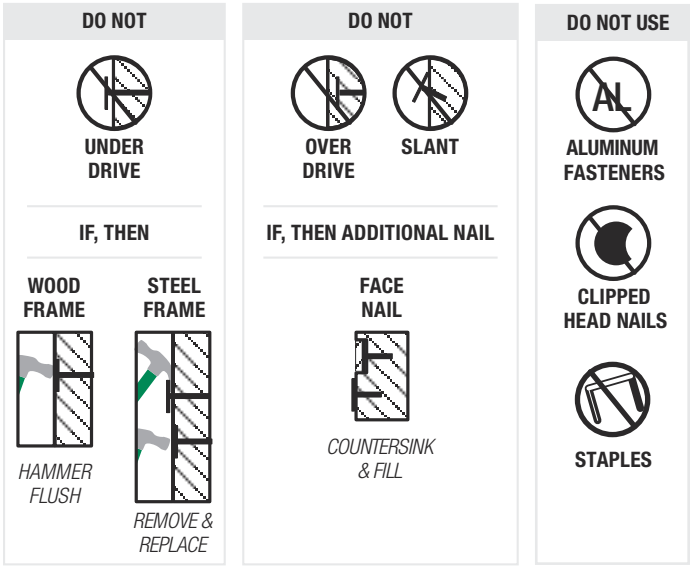
Caulk, paint or prime all field cut edges. James Hardie touch-up kits are required to touch-up ColorPlus products.

CAULKING

For best results use an Elastomeric Joint Sealant complying with ASTM C920 Grade NS, Class 25 or higher or a Latex Joint Sealant complying with ASTM C834. Caulking/Sealant must be applied in accordance with the caulking/sealant manufacturer's written instructions.
Note: some caulking manufacturers do not allow "tooling".

PNEUMATIC FASTENING

James Hardie products can be hand nailed or fastened with a pneumatic tool. Pneumatic fastening is highly recommended. Set air pressure so that the fastener is driven snug with the surface of the siding. A flush mount attachment on the pneumatic tool is recommended. This will help control the depth the nail is driven. If setting the nail depth proves difficult, choose a setting that under drives the nail. (Drive under driven nails snug with a smooth faced hammer - Does not apply for installation to steel framing).



PAINTING

DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products. James Hardie products must be painted within 180 days for primed product and 90 days for unprimed. 100% acrylic topcoats are recommended. Do not paint when wet. For application rates refer to paint manufacturers specifications. Back-rolling is recommended if the siding is sprayed.

COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie® ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE® SIDING AND TRIM PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

COVERAGE CHART/ESTIMATING GUIDE

Number of 12' planks, does not include waste

COVERAGE AREA LESS OPENINGS		HARDIEPLANK SIDING WIDTH						
SQ (1 SQ = 100 sq.ft.)	Sq. Meters (1 SQ = 9.29)	(exposure)	5 1/4 4	6 1/4 5	7 1/4 6	7 1/2 6 1/4	8 6 3/4	8 1/4 7
1	(9.29)		25	20	17	16	15	14
2	(18.58)		50	40	33	32	30	29
3	(27.87)		75	60	50	48	44	43
4	(37.16)		100	80	67	64	59	57
5	(46.45)		125	100	83	80	74	71
6	(55.74)		150	120	100	96	89	86
7	(65.03)		175	140	117	112	104	100
8	(74.32)		200	160	133	128	119	114
9	(83.61)		225	180	150	144	133	129
10	(92.9)		250	200	167	160	148	143
11	(102.19)		275	220	183	176	163	157
12	(111.48)		300	240	200	192	178	171
13	(120.77)		325	260	217	208	193	186
14	(130.06)		350	280	233	224	207	200
15	(139.35)		375	300	250	240	222	214
16	(148.64)		400	320	267	256	237	229
17	(157.93)		425	340	283	272	252	243
18	(167.22)		450	360	300	288	267	257
19	(176.51)		475	380	317	304	281	271
20	(185.8)		500	400	333	320	296	286

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

COMPLIANCE:

HardiePlank® lap siding complies with ASTM Specification C1186 (Grade II, Type A) and ISO Standard 8336 (Category A, Class 2, Level I). When tested in accordance with CAN/ULC-S102, the product is recognized to have the following properties: Flame Spread Rating: 0, Smoke Developed Classification: 0. When tested in accordance with CAN/ULC-S114, the product is recognized as noncombustible.

RECOGNITION:

HardiePlank lap siding is recognized as an exterior wall cladding in CCMC Evaluation Report 12678-R. This document should also be consulted for additional information concerning the suitability of this product for specific applications. For technical assistance, call 1-800-9-HARDIE.

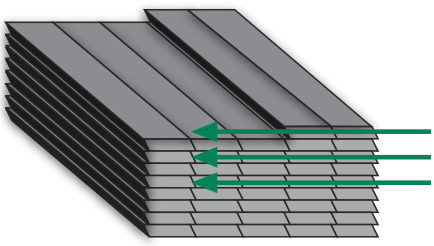
ADDITIONAL HANDLING REQUIREMENTS

IMPORTANT: To prevent damage to the drip edge, extra care should be taken when removing planks from the pallet, while handling, and when installing with a lap gauge. Planks are interlocked together on the pallet, therefore they should be removed from the pallet horizontally (side to side) to allow planks to unlock themselves from one another.

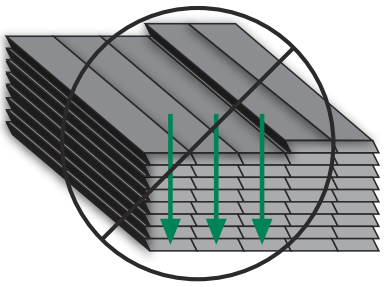
FIRE-RESISTIVE CONSTRUCTION:

HardiePlank lap siding is recognized as a component in 1-hour fire-related wall construction when tested in accordance with CAN/ULC-S101. Details of the listed assemblies may be found at: https://bpdirectory.intertek.com

Pull from across the stack



Do not go down the stack



WIND LOAD TABLE

HardiePlank Lap Siding, 7.9 mm thick (5/16 in)

MAXIMUM PLANK WIDTH	FRAME TYPES	STUD SPACING	SHEATHING	FASTENER SPACING	FASTENERS	RATING (kPa) Non-Post-Disaster Building (Height < 12 m)	RATING (kPa) Non-Post-Disaster Building (Height < 20 m)
235 mm (9.25 in)	2x4 SPF wood	406 mm (16 in)	N/A	blind nail to stud	6d common nail (2.87mm x 6.75 mm x 50.8 mm)	Q50<0.75	Q50<0.65
235 mm (9.25 in)	2x4 SPF wood	610 mm (24 in)	N/A	blind nail to stud	6d common nail (2.87mm x 6.75 mm x 50.8 mm)	Q50<0.55	Q50<0.45
235 mm (9.25 in)	2x4 SPF wood	406 mm (16 in)	N/A	blind nail to stud	1.25 roofing nail (3.05 mm x 9.52 mm x 31.8 mm)	Q50<0.75	Q50<0.65
235 mm (9.25 in)	2x4 SPF wood	610 mm (24 in)	N/A	blind nail to stud	6d siding nail (2.34 mm x 5.64 mm x 50.8 mm)	Q50<0.55	Q50<0.45
305 mm (12 in)	2x4 SPF wood	406 mm (16 in)	N/A	face nail to stud	8d siding (2.41 mm x 5.97 mm x 63.5 mm)	Q50<0.65	Q50<0.55
235 mm (9.25 in)	2x4 SPF wood	610 mm (24 in)	N/A	face nail	6d common nail (2.87mm x 6.75 mm x 50.8 mm)	Q50<0.75	Q50<0.65
235 mm (9.25 in)	2x4 SPF wood	610 mm (24 in)	7/16 in OSB	blind nail at 8 in. OC to OSB	4d ring shank siding nail (2.41 mm x 5.56 mm x 38 mm)	Q50<0.55	Q50<0.45
184 mm (7.25 in)	2x4 SPF wood	406 mm (16 in)	N/A	blind nail to stud	6d common nail (2.87mm x 6.75 mm x 50.8 mm)	Q50<0.75	Q50<0.65
235 mm (9.25 in)	2x4 SPF wood	406 mm (16 in)	N/A	blind nail to stud	4d ring shank siding nail (2.41 mm x 5.56 mm x 38 mm)	Q50<0.55	Q50<0.45
235 mm (9.25 in)	2x4 SPF wood	610 mm (24 in)	N/A	blind nail to stud	4d ring shank siding nail (2.41 mm x 5.56 mm x 38 mm)	Q50<0.45	N/A
210 mm (8.25 in)	20-ga. steel	406 mm (16 in)	N/A	blind nail to stud	1.5 in ET&F fastener (2.54 mm x 6.35 mm x 38 mm)	Q50<0.55	Q50<0.45

METRIC TO IMPERIAL CONVERSION TABLE

The following table provides a conversion of the nominal metric measurements presented in these installation instructions to nominal Imperial fraction measurement values

mm	inches	mm	inches	mm	inches	mm	inches
2.3	3/32	7.5	5/16	32	1-1/4	203	8
2.4	3/32	8.2	21/64	35	1-3/8	210	8-1/4
2.9	1/8	9.2	3/64	38	1-1/2	241	9-1/2
3	1/8	9.5	3/8	41	1-5/8	305	12
5.6	7/32	11.1	7/16	50	2	406	16
5.7	7/32	12	15/32	91	3-5/8	610	24
6	15/64	19	3/4	150	6		
6.7	17/64	25	1	190	7-1/2		

SILICA WARNING

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

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Product warranties, safety information and additional installation information are available at jameshardiepros.com