

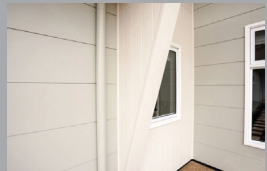
Technical Supplement

Australia April 2019

Structnail™ Supersharps Gripshank™ Fastener

EXTERIORS - CUSTOM DESIGN

AVAILABLE FOR THE FOLLOWING PRODUCTS



Axon™ cladding



Linea™ weatherboard



Stria™ cladding



PrimeLine™ weatherboard



Secura™ flooring

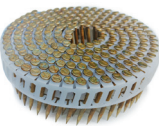

IMPORTANT NOTES

1. This supplement must be read in conjunction with the respective current James Hardie installation guide and any other relevant literature. This is not a standalone document for the installation of James Hardie™ products.
2. This document is intended to assist in the fixing of selected James Hardie™ products to steel frames in a residential application with Structnail™ in lieu of the standard fixing method (i.e. screws). All components and accessories must be installed in accordance with the respective manufacturer's specifications.
3. For specification, installation and warranty terms of James Hardie™ products, ensure that you have the current technical information and guides. If in doubt, or you need more information, visit www.jameshardie.com.au or Ask James Hardie™ on 13 11 03.

INTRODUCTION

This supplement outlines the use Structnail™ with selected James Hardie™ products as an alternative fixing method to screws for steel framing. Nailing can reduce installation time due to the elimination of surface preparation steps, such as countersinking and patching screw holes.

COMPONENTS

Product	Description
	Structnail™ Supersharps Gripshank™ Fastener Structnail™ Product: 2359NG 38mm Supersharps Gripshank™ PT2000 (Class 3) Quantity per box: 3200 Required Tool: JN65 15° coil nailer with hardened driver Suitable Steel frame: 0.55BMT/G550 or 0.75 BMT/G550.
	38-65mm Coil Nailer JN65 15 deg Coil Nailer with hardened drive pin Fasteners: 2359NG, 2509NG, 2639NG

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Structnail™ Specialised Steel Fasteners

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DESIGN CONSIDERATIONS

JAMES HARDIE™ PRODUCT SELECTION

This Supplement does not apply to all James Hardie™ products and applications (see Table 1). Structnail™ Supersharps Gripshank™ Fastener can be used in wall and floor applications in structures categorized as Building Class 1 and 10 in the NCC (National Construction Code).

STEEL FRAMING CONSIDERATIONS

Use of steel framing must be in accordance with NASH standard for Residential and Low-Rise Steel Framing Part 1: Design Criteria and the framing manufacturers specifications. The steel framing must have the appropriate level of durability required to prevent corrosion and must be of the Base Metal Thickness (BMT) specified in Table 1.

James Hardie Product	Steel BMT	Application	Minimum Gun Pressure (psi)*
Axon™ Cladding 9mm	0.55 - 0.75	Cladding only	60
Linea™ 16mm Weatherboards	0.55 - 0.75	Cladding only	90
PrimeLine® 9mm Newport Weatherboards	0.55 - 0.75	Cladding only	80
Stria™ Cladding (325mm Width Profile)	0.75	Cladding only	90
Secura™ Flooring 19mm	1.00	Structural Flooring	120

TABLE 1: PRODUCT AND FRAMING SELECTION

*The minimum gun pressure has been determined from test results of 0.55mm BMT framing for each product. For higher BMT, higher pressure will be required.

CORROSION RESISTANCE

Fasteners must have the appropriate level of durability required for the intended project (min. Class 3). In highly corrosive environments including but not limited to coastal areas located within 1km of the shoreline or large expanses of salt water, areas subject to salt spray or chlorine, the fasteners must have a suitable corrosion resistance level (min. Class 4 finish). Fasteners must be fully compatible with all other materials that they are in contact with to ensure the durability and integrity of the assembly. Contact the relevant fastener manufacturer for more information.

STRUCTURAL BRACING

This fixing method is not suitable for wall bracing. For alternative fixing methods refer to James Hardie's Structural Bracing Application Guide available at jameshardie.com.au.

THERMAL BREAK FOR WALLS

For steel frames, the Building Code of Australia sections J1.5 and 3.12.1 volumes 1 and 2 respectively, state for both residential and commercial buildings a thermal break with an R 0.2m² K/W must be installed behind external cladding where the cladding and internal lining make direct contact with the same steel frame. For information relating to the suitability of James Hardie's HardieBreak™ thermal strip, refer to the HardieBreak™ Installation Guide.

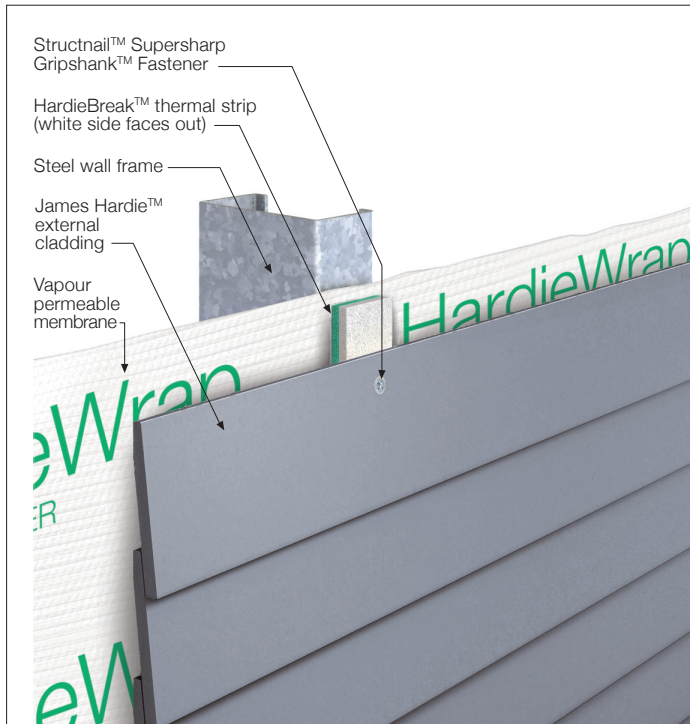


FIGURE 1: HARDIEBREAK™ THERMAL STRIP INSTALLATION OVERVIEW

FIXING SPECIFICATION

Refer to Table 2 for suitability of the specified James Hardie™ product as per Wind Load Classifications of AS 4055 'Wind Loads for Housing'.

When installing Secura™ Flooring refer to the product's installation guide for fastener spacing.

James Hardie Cladding	AS 4055 Wind Design Capability	Stud Spacing (mm)	Fastener Spacing (mm)	ULS Design Pressure Capacity (kPa)
Axon™ 9mm Cladding	N3/C1	600	200	2.00
	N4/C2	450	175	2.90
	N5/C3	300	175	4.30
			125	5.80
Linea™ 16mm Weatherboards	N3/C1	600	300	1.95
PrimeLine® 9mm Newport Weatherboards	N3/C1	600	300	1.95
Stria™ Cladding (325mm Width Profile)	N3/C1	600	300	1.95

TABLE 2: FIXING DESIGN TABLE

INSTALLATION TIPS

- Do not over drive the Supersharp Gripshank™ fasteners into the cladding. The nails must be driven flush. To prevent over driving the nails, it is recommended to set the gun nail such that the nails are under-driven by 1mm - 2mm into the cladding and then hand hammered flush with the sheet.

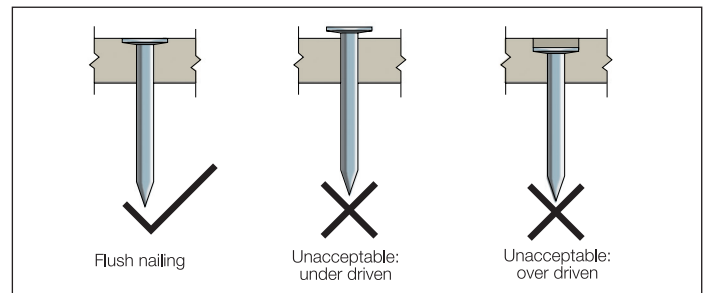


FIGURE 2: NAIL FASTENER DEPTH

- When using Structr nail™, you must follow manufacturer's instructions.
- The installer may need to increase the gun pressure to achieve the desired nail penetration. Refer to Table 1 for minimum gun pressure requirements.
- It is recommended to install Supersharp Gripshank™ fasteners closer to the web of the C section (while staying within minimum edge distance requirements from installation guide) as this provides more support and less recoil from the flange.

WARRANTY

James Hardie recommends the use of Structr nail™ Supersharp Gripshank™ Fastener with the James Hardie products mentioned in Table 2 only. James Hardie's product warranty for the products set out in Table 2 will apply subject to the term and conditions of the relevant product warranty.

DISCLAIMER

James Hardie does not manufacture, supply or warrant the Structr nail™ Supersharp Gripshank™ Fastener component. Please contact Structr nail™ for information on warranties and further information on their products.