

Technical Supplement

Australia September 2020

Structnail® Gripshank™ SuperSharpy™

EXTERIORS - CUSTOM DESIGN

AVAILABLE FOR THE FOLLOWING PRODUCTS



Axon™ cladding



Linea™ weatherboard



Stria™ cladding



PrimeLine™ weatherboard



Secura™ flooring



EasyLap™ and EasyTex™ panel

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 of Structnail® Gripshank™ SuperSharpy™ fasteners 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® Gripshank™ SuperSharpy™ Fastener Structnail® Product Code: 2359NG Gripshank™ SuperSharpy™ 38mm PT2000 (Class 3) Quantity per box: 3200 Required Tool: 15° coil nailer with hardened driver Suitable Steel frame: 0.55BMT/G550 or 0.75 BMT/G550 or 1.0 BMT for flooring.
	38-65 HIKOKI COIL NAILER NV65AF3 15 deg Coil Nailer with hardened drive pin Fasteners: 2359NG, 2509NG, 2639NG

For contact details for purchasing or technical support on Structnail® products:
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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® Gripshank™ SuperSharpy™ 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
EasyLap™ & EasyTex™ Panel	0.55 - 0.75	Cladding only	60

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.

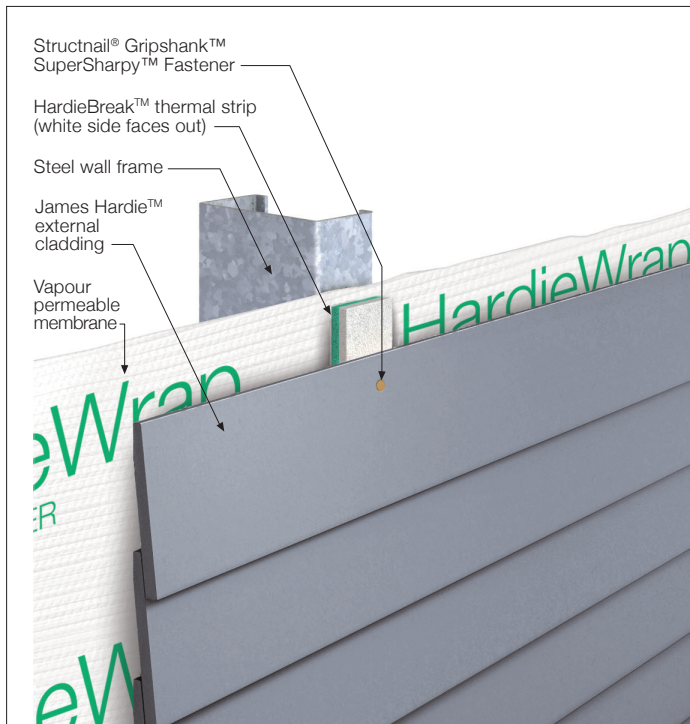


FIGURE 1: HARDIEBREAK™ THERMAL STRIP INSTALLATION OVERVIEW

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)
Axon™ 9mm Cladding	N3/C1	600	200
	N4/C2	450	175
	N5/C3	300	175
	N6/C4		125
Linea™ 16mm Weatherboards	N3/C1	600	300
PrimeLine® 9mm Newport Weatherboards	N3/C1	600	300
Stria™ Cladding (325mm Width Profile)	N3/C1	600	300
EasyLap™ & EasyTex™ Panel	N3/C1	600	200/100*
	N4/C2	600/450*	200/100*

TABLE 2: FIXING DESIGN TABLE

*within 1200 of edges

INSTALLATION TIPS

1. Do not over drive the Structrnail® Gripshank™ SuperSharpy™ fasteners into the cladding, the fastener must be flush.

Adjust the Compressor regulator outlet to the desired psi then the tool depth adjustment to achieve a flush finish. If a fastener is under driven, the installer may complete the installation by driving the fastener flush using a hand hammer. An additional fastener must be installed approximately 25mm away from the existing fastener (where possible) ensuring a flush finish result and a correct fix.

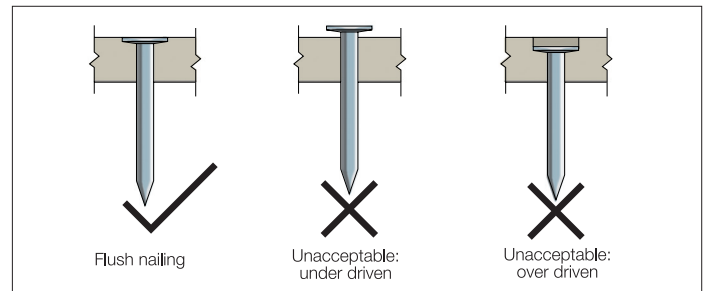


FIGURE 2: NAIL FASTENER DEPTH

2. When using Structrnail® Gripshank™ SuperSharpy™, you must follow manufacturer's instructions.
3. The installer may need to increase the gun pressure to achieve the desired nail penetration. Refer to Table 1 for minimum gun pressure requirements.
4. It is recommended to install Structrnail® Gripshank™ SuperSharpy™ 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 Structrnail® Gripshank™ SuperSharpy™ 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 Structrnail® Gripshank™ SuperSharpy™ Fastener component. Please contact ICCONS® Pty Ltd for information on warranties and further information on their products. Structrnail® Gripshank™ SuperSharpy™ fasteners are manufactured by AeroSmith® Fastening Systems in the USA and distributed locally by ICCONS® Pty Ltd under the Structrnail® brand.