

**CarterHoltHarvey**  
Woodproducts New Zealand

**shadowclad®**

SHADOWCLAD®  
STRUCTURAL

**Natural  
GROOVE**

SHADOWCLAD®  
STRUCTURAL

**Natural  
TEXTURE**

SHADOWCLAD®  
STRUCTURAL

**Ultra  
GROOVE**

SHADOWCLAD®  
STRUCTURAL

**Ultra  
TEXTURE**

SHADOWCLAD®

**FLASHINGS**

*shadowclad® Stick - an ins*

*An installation tool  
for Shadowclad®.*

**JUNE 2018**

**SHADOWCLAD® STICK**  
*User Guide*

## SHADOWCLAD® STICK

For decades, Shadowclad® has been providing home owners with a natural, durable cladding system for the New Zealand housing market. Correct installation and maintenance of Shadowclad as detailed in our specification literature is necessary to ensure that compliance with the New Zealand Building Code (NZBC), durability, structural integrity and weathertightness is maintained.

CHH Woodproducts is proud to introduce the Shadowclad Stick, an installation tool for Shadowclad. This tool removes the need for builders to develop their own 'jigs' to aid in ensuring that critical clearances, nail spacings, etc. are applied during the installation of Shadowclad sheets.

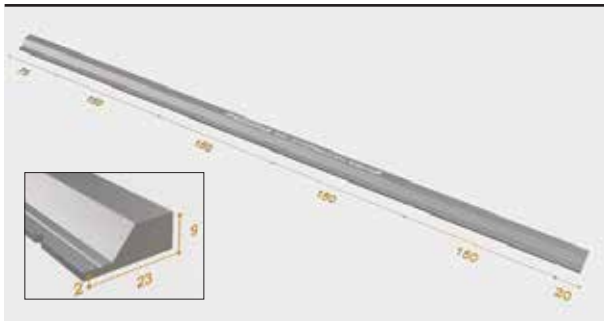
The Shadowclad Stick does not replace the need to follow good building practice and the requirement to read and understand the Shadowclad Specification & Installation Guides and the NZBC.

### 1.0 THE COMPONENTS OF THE SHADOWCLAD® STICK

The Shadowclad Stick has been developed specifically to deal with expansion gaps, catering for both Shadowclad texture and Shadowclad groove as well as horizontal and vertical joints. The Shadowclad Stick also provides guidance around nail spacings to suit:

- 150 mm spacing around sheet edges and 300 mm to intermediate studs and nogs;
- 75 mm distance for the bottom of the sheet; and
- 20 mm for the top of the sheet.

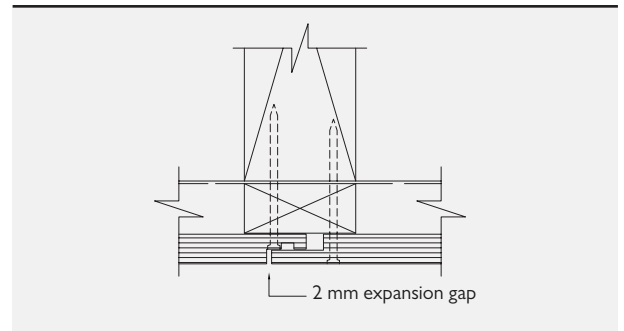
**Figure 1: The Shadowclad® Stick**



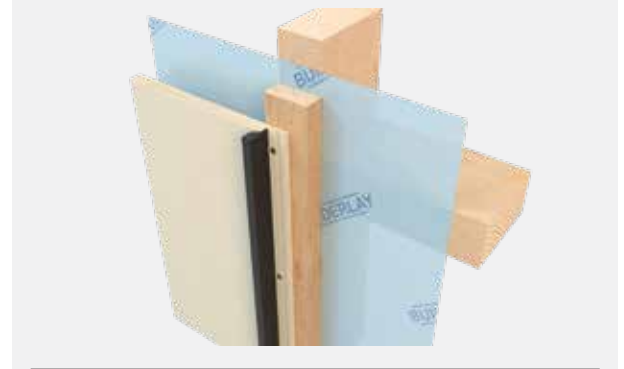
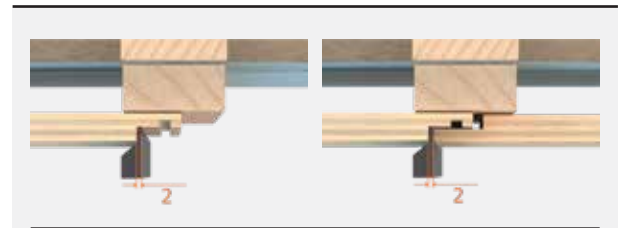
### 2.0 VERTICAL JOINTS

The Shadowclad Stick is contoured to be 2 mm thick on one edge and 9 mm thick on the other. At 695 mm long, the Shadowclad Stick can be placed in the middle of sheets to provide minimum clearance requirements. Figure 2 illustrates the 2 mm expansion gap required for Shadowclad texture together in use with the Shadowclad Stick. Figure 3 illustrates the 9 mm expansion gap required for Shadowclad Groove, together in use with the Shadowclad Stick.

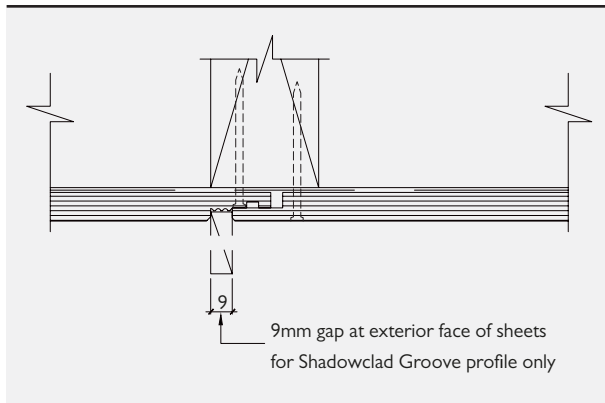
**Figure 2: Shadowclad Texture - 2 mm Vertical Expansion Gap**



Refer to SC006 for the installation detail



**Figure 3: Shadowclad® Groove - 9 mm Vertical Expansion Gap**

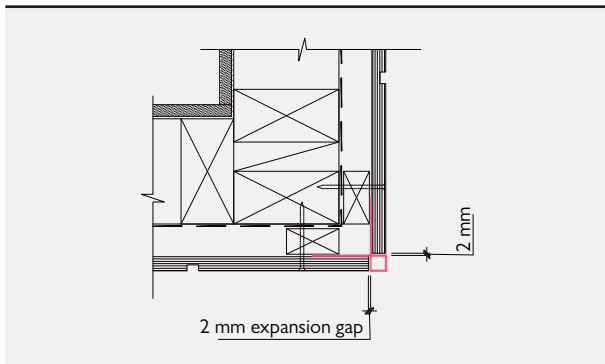


Refer to SC008 for the installation detail

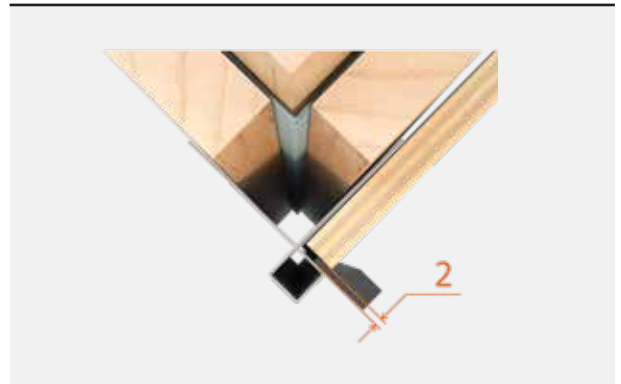


The 2 mm thick edge of the Shadowclad Stick can also be used to measure the 2 mm expansion gap required between vertical flashings and Shadowclad as detailed in Figure 4 (Vertical Top Hat Flashing and 'W' Flashing similar).

**Figure 4: 2 mm Vertical Expansion Gap on Shadowclad® External Box Corner**



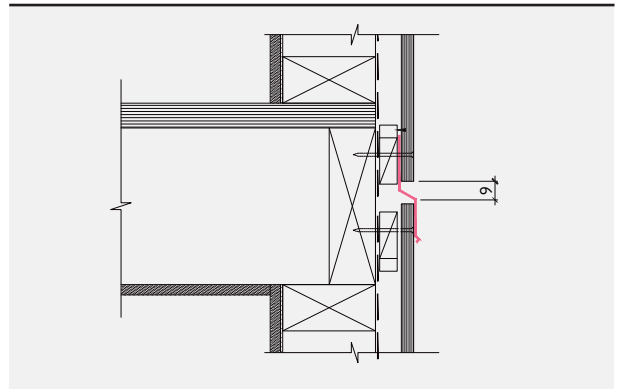
Refer to SC020 for the installation detail



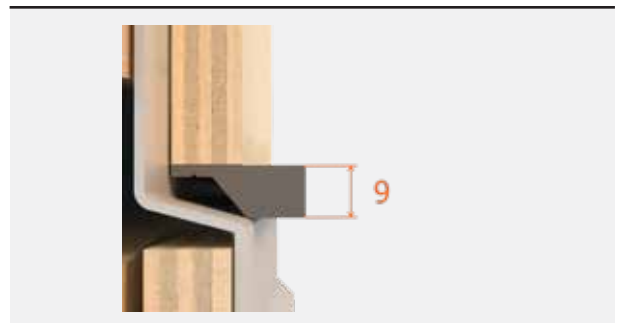
### 3.0 HORIZONTAL JOINTS

The 9 mm thick edge on the Shadowclad® Stick can also be used to provide the appropriate clearance between the top of the horizontal flashings and bottom of sheets as detailed in Figure 5 (Window head and metre box similar) as noted in the Shadowclad Specification & Installation Guide.

**Figure 5: Shadowclad 9 mm Gap at Horizontal 'Z' Flashing**



Refer to SC016 for the installation detail



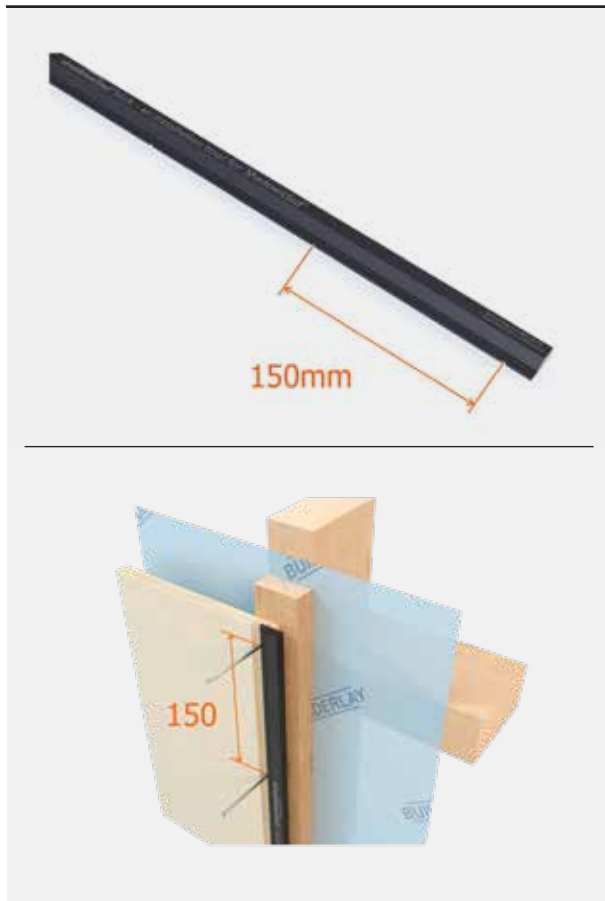
## 4.0 FASTENER LOCATIONS

The Shadowclad® Stick has been detailed to support the correct placement of fastenings corresponding to the Shadowclad Specification & Installation Guides.

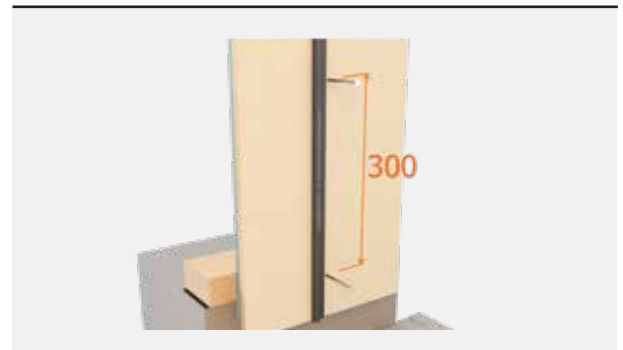
### 4.1 NAIL SPACING'S

Section 4.7 of the Shadowclad Specification & Installation Guide notes "Standard fixing pattern: fasten sheet edges at 150mm centres and within the panel on all supports at 300mm centres". Figure 6 details the use of the Shadowclad Stick at sheet edges with 150 mm nail spacing provided for between half rounds spaced at exactly 150 mm centres. Figure 7 details the use of the Shadowclad Stick at the centre of the sheet to provide fixings at 300 mm centres, whilst figure 8 provides a pictorial representation of the Shadowclad fastener layout.

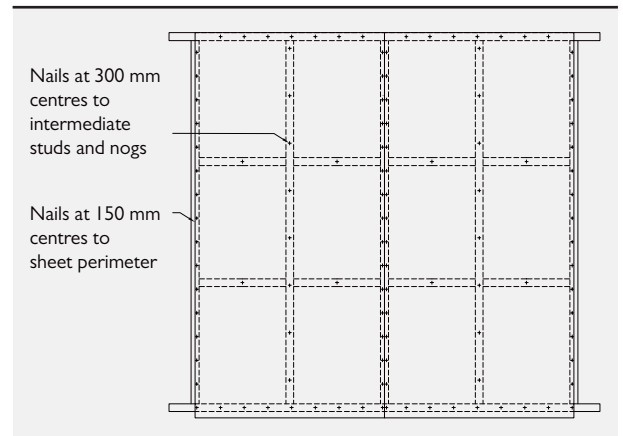
**Figure 6: Sheet fastening around sheet edges at 150 mm**



**Figure 7: Sheet fastening within the panel at 300 mm**



**Figure 8: Pictorial representation of nail spacings for sheet edges and intermediate supports**



## 4.2 NAILING OF THE SHIP LAP

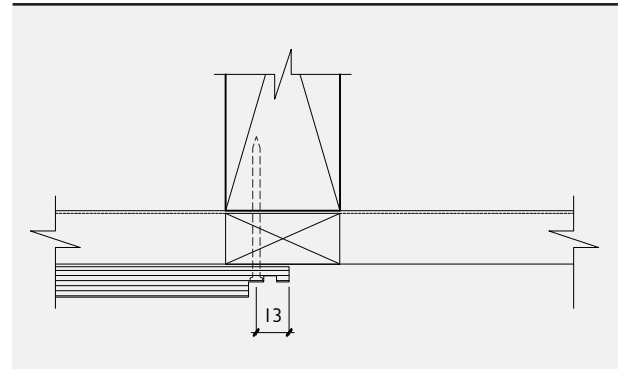
Nailing of the ship lap is an important step in ensuring the Shadowclad® system's weathertightness. Each Shadowclad sheet is independently nailed off to allow for expansion and contraction of the sheets over their service life, whilst maintaining a weathertight connection. The Shadowclad Stick has two distinct locating devices for the ship lap joint. Figure 9 illustrates the location of the ridge, exactly 13 mm from the edge of the Shadowclad Stick, in combination with the diameter 3 mm half round provides the exact location for nails within the underlap portion of the ship lap. The ridge should be lined up with the edge of the underlap edge of the sheet. Figure 10 details the use of the Shadowclad Stick in this application.

The Shadowclad Stick is exactly 23 mm wide as detailed in Figure 11. To ensure that the Shadowclad sheets are fixed independently of each other, the top of the ship lap should be fixed 23 mm from the edge. The Shadowclad Stick should be placed along the sheet and nailed at 150 mm centres as detailed in Figure 12.

**Figure 9: Shadowclad® Stick 13 mm dimension**



**Figure 10: Shadowclad Stick and weather groove nailing**



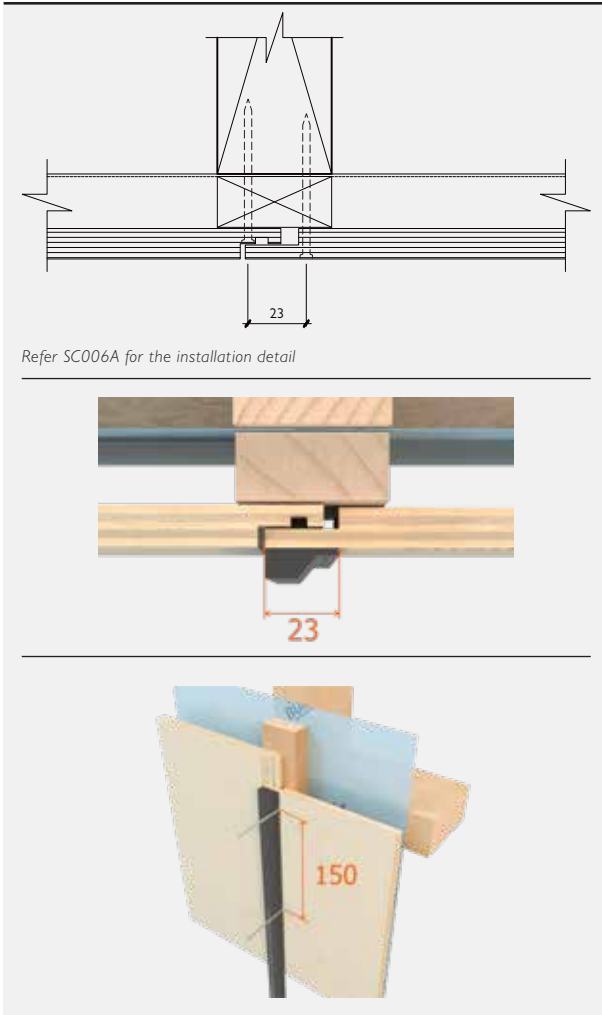
*Refer SC006A for the installation detail*



Figure 11: Shadowclad® Stick 23 mm dimension



Figure 12: Shadowclad Stick and ship lap nailing



Refer SC006A for the installation detail

## 4.3 END DISTANCE FASTENER LOCATIONS

Compliance with the end distance nailing is an important step in achieving the weathertight solution. The Shadowclad Stick has two end of sheet identifiers, including a 75 mm edge distance from the bottom of the Shadowclad Stick to the first nail locator as detailed in Figure 13. The top of the Shadowclad® Stick has a 20 mm end distance from the top of the Shadowclad Stick to the first nail locator, to suit nailing of the top of the sheet to the centre of the top plate, as detailed in Figure 14.

Figure 13: 75 mm end distance



Refer to SC042 for the installation detail

Figure 14: 20 mm end distance



## 5.0 SHADOWCLAD® SPECIFICATION & INSTALLATION GUIDE & SHADOWCLAD APP

The Shadowclad® Stick has been developed to compliment the Shadowclad Specification & Installation Guides and the Shadowclad APP all of which are available to download from [www.shadowclad.co.nz](http://www.shadowclad.co.nz).

# shadowclad<sup>®</sup>

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**June 2018**

