



# Structurally fixed cavity battens



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The larger shank diameter of fixings used to fix weatherboards over a cavity can cause splitting. One way to get around this problem is to fix timber cavity battens directly to the structural framing.

## **BUILDING CODE ACCEPTABLE SOLUTION E2/AS1**

clause 9.1.8.4(c) says that cavity battens must be fixed to the structural frame by the cladding fixing. Table 24 gives methods of fixing different claddings. The table includes fixing types and sizes, minimum frame penetrations for fixings and fixing patterns.

### **Minimum penetrations required**

The minimum penetration length of fixings into the frame for particular claddings is the same whether the cladding is direct-fixed or over a cavity. For example, in:

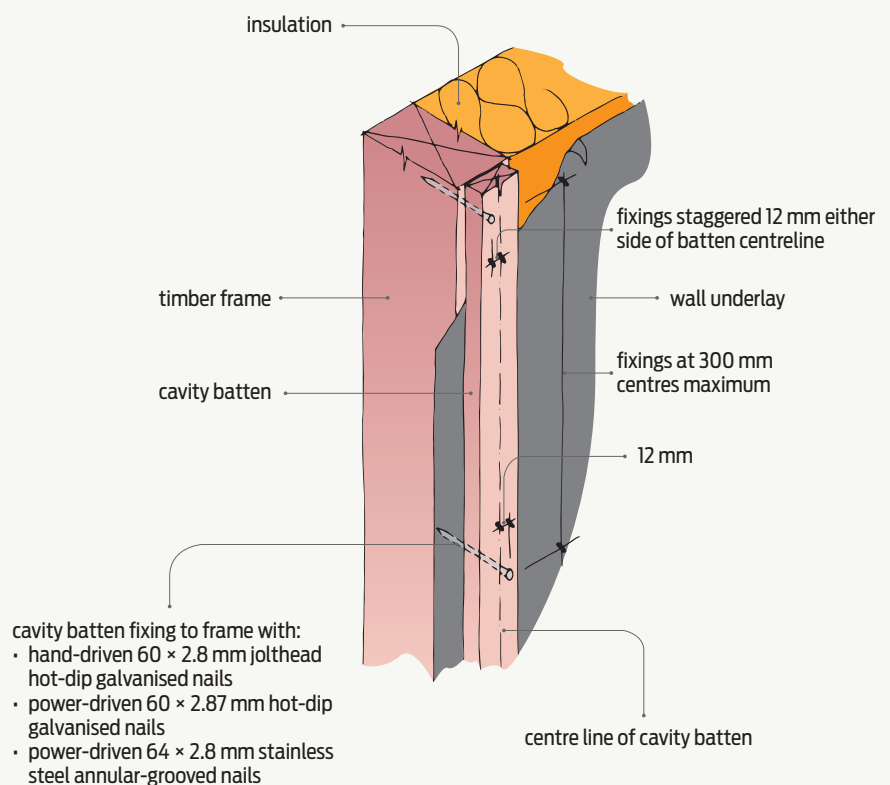
- paint-finish weatherboards, fixings must have a minimum penetration of 35 mm into the structural frame
- stained or bare finish weatherboards, fixings must have a minimum penetration of 30 mm into the structural frame.

This means that, when weatherboards are fixed over a cavity, fixings must be at least 20 mm longer to achieve the minimum penetration into the structural frame.

As a general rule, as the nail length increases there is also an increase in shank diameter. This can cause the weatherboards to split.

### **Solution – structurally fix cavity battens to framing**

One way to overcome this potential splitting problem is to fix the timber cavity battens directly to the framing. The battens then become part of the structural frame, which allows the fixings given in Table 24 to be used.



**Figure 1** Fixing for a structurally fixed timber cavity batten.

Although this is an alternative method, structural integrity of this fixing arrangement was confirmed by BRANZ Test Report ST0589 *Version 2 Fixing horizontal weatherboards to studs over a cavity*. It is described in BRANZ Bulletin 582 *Structurally fixed cavity battens*.

### **Suit rusticated and bevelback weatherboards**

BRANZ Bulletin 582 states that, to fix horizontal rusticated and bevel-back weatherboards, timber battens must:

- have a maximum thickness of 20 mm ➤