

## AliBat (by Nu-Wall) Structural Cavity Batten – Specification Reference

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### Introduction

This document is published as an aid to Specifiers when incorporating the AliBat extruded aluminium cavity batten into designs relating to new construction, or renovation, of residential or commercial buildings. It should be used in conjunction with published specification drawings, copies of which are available upon request. These drawings are also available for downloading from the website – [www.alibat.co.nz](http://www.alibat.co.nz) – in various formats including PDF and a range of CAD formats.

The standard specification drawings cover installation on to timber framing. AliBat can also be installed over steel framing and other substrates. While not all are covered in this document and referenced drawings, assistance is available with detailing of such specifications.

### Structure and fixing

Timber framing must generally comply with NZS 3604 for buildings or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170. Where specific design is required, the framing must be of at least equivalent stiffness to the framing provisions of NZS 3604. In all cases studs must be at maximum 600 mm centres. Where AliBat Structural Cavity Battens are to be installed horizontally, there is no specific requirement for horizontal dwangs to be present. Where AliBat battens are to be installed vertically, dwangs should be fitted flush between the studs at maximum 800 mm centres.

Fixing of the battens to framing is achieved using 10gx50mm stainless steel screws through the battens' pre-drilled and countersunk holes.

Steel framing must be to a specific design meeting the requirements of the NZBC. The minimum framing specification is 'C' section studs and nogs of overall section size of 75 mm web and 32 mm flange. Steel thickness must be minimum 0.75 mm. In all cases, studs must be at maximum 600 mm centres. Where AliBat Structural Cavity Battens are to be installed horizontally, there is no specific requirement for horizontal dwangs to be present. Where AliBat battens are to be installed vertically, dwangs should be fitted flush between the studs at maximum 800 mm centres.

Fixing of the battens to framing is achieved using 10gx40mm galvanised TEK screws through the pre-drilled and countersunk holes.

Where a rigid air barrier (RAB) is incorporated, the fastener length must be increased by a minimum of the thickness of this.

Where flashing tapes or other materials cause the faces of battens installed at vertical details to be out of alignment with the faces of the general battening it may be necessary to correct this using pre-made aluminium shims; these are supplied with the AliBat battens.

### Design Wind Pressures

AliBat was incorporated into test panels clad with Nu-Wall Mono200 which have been subjected to face-load testing by BRANZ Structural Engineers with wind pressure performance verified as follows:

- Nu-Wall over AliBat battens fixed at 600mm centres (2 x screws per fixing) – differential pressures up to 4.52kPa.
- Nu-Wall over AliBat battens fixed at 300mm centres (2 x screws per fixing) – differential pressures up to 6.09kPa.

Both of the above situations utilised a fixing of the Nu-Wall cladding at every batten using a 10gx16mm galvanised TEK screw. Similar wind pressure performance may be expected using other cladding materials though fixing specifications for such products would need to be provided by the relevant manufacturer.

### Design responsibility

The Specifier for the project must ensure that the details in this literature are suitable for the intended application and that additional detailing is provided for specific design or any areas that fall outside the scope and specifications of this literature. In such cases the Specifier must ensure that the design meets the relevant performance requirements of the NZBC. Assistance is available from Nu-Wall Aluminium Cladding Ltd in development of non-standard detailing.

### Installation process

The only fabrication of AliBat required prior to installation is cutting to length to suit the dimensions of the subject areas. As such, installation should be well within the capabilities of a competent builder.