Dimond Roofing®

VENTED NC BATTEN

CLASS 1

Product Technical Information and Statement

Vented Non-Combustible (NC) Batten

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Place of Manufacture

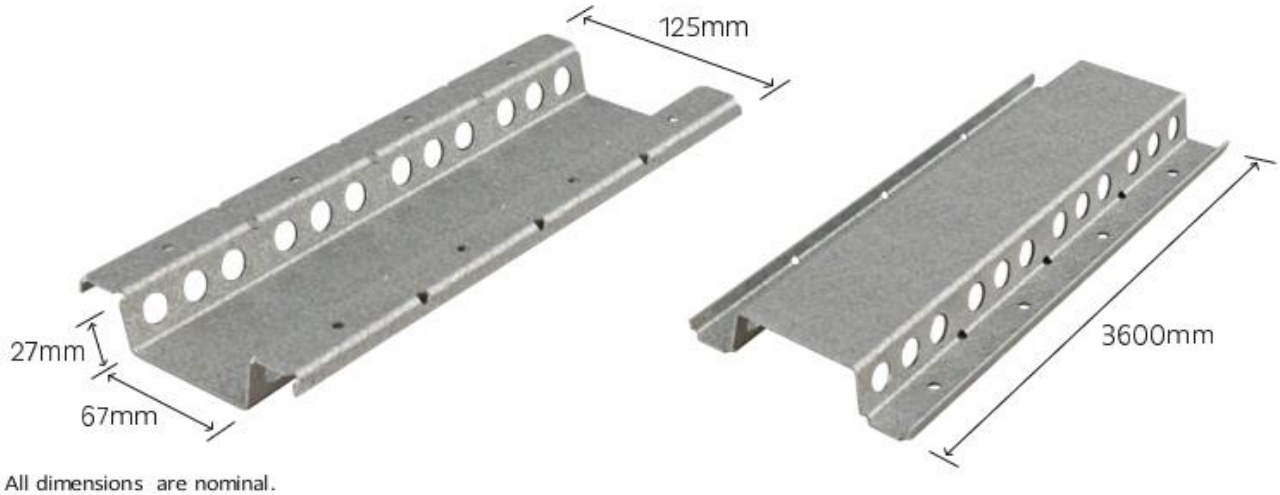
Aotearoa New Zealand

Technical Manual

https://www.dimond.co.nz/downloads

Product Description

The Vented Non-Combustible (NC) Batten is a galvanized steel top hat profile that is roll-formed with punched holes for both fastener locations and to enable ventilation air flow to pass through the profile with minimal pressure drop. The Vented NC Batten is available in 1.45 mm steel thickness to provide sufficient fastener pull out resistance for fixing the cladding material, and is supplied in standard 3600 mm lengths.



All dimensions are nominal.

Design Guidelines

It is critical to product performance that the loads applied, spans and number and type of fasteners are within the limits outlined in the following table:

Span (mm)	Maximum Load Capacity (kPa)					
	Batten Spacing (mm)					
	600	900	1200	1500	1800	2100
400	8.01	5.34	4.01	3.21	2.67	2.29
600	5.72	3.82	2.86	2.29	1.91	1.64

900	3.99	2.66	2.00	1.60	1.33	1.14

Performance Basis

Batten fixed over at least two spans with two fasteners per support member

Fixing to timber: 12g Type 17 with 35 mm embedment

Fixing to Steel at least 1.2 mm thick: 12g Teks

Maximum loads given apply to both inward and outward load cases and are limited by cladding screw fastener Design Capacity of 1.5 kN per fastener (including Capacity Reduction Factor of 0.5) Spans of 1000mm or greater exceed a deflection limit of span/150 mm

If subject to a foot traffic point load of 1kN, span must not exceed 900 mm.

Scope of use

The Vented NC Batten is intended to provide a means of forming a ventilated cavity behind a wall cladding and is suitable for use where a non-combustible cavity batten is required. The Vented NC Batten is intended for use across at least 2 spans between structural frame members and fastened to each member.

The use of Vented NC Batten must be within the limitations on the environment for acceptable use of galvanised steel. The area should be dry, with no contaminants, or contact with dissimilar materials. The NC Batten may not suitable for areas considered to be in Very Severe or Severe Marine Environments unless reliably protected from contaminants.

Compliance With the NZ Building Code

Past history of the use of galvanised steel components in internal environments, indicates that provided the system design, use and maintenance is in line with the guidelines in this statement, Vented NC Batten can reasonably be expected to meet the performance criteria in Clause B2.3.1 (b) Durability for a period of not less than 15 years, provided the galvanised steel surface remains dry, free from contamination and is not in contact with dissimilar materials that could cause galvanic corrosion.

The compliance of the fasteners used with NC Batten must be a minimum of Class 4 to achieve the same level of durability as the batten.

Vented NC Batten is manufactured entirely from galvanised steel material generically tested in accordance with the ISO 5660 test method to demonstrate compliance with the non-combustibility requirements of the NZ Building Code, Clause C3.3 Fire Affecting Areas Beyond the Source.

Relevant Standards NZBC

- **B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 (a) (b) (h), B1.3.4 (b):** Dimond NC batten if installed to Dimonds installation guidelines it will conform to above standards.
- **B2 Durability: Performance clauses B2.3.1(b):** Dimond NC batten conforms to AS/NZS 2728.
- **C3 Fire affecting areas beyond the fire source: Buildings C3.7(a):** NC batten is a non-combustible material.
- **F2 Hazardous building materials: Performance F2.3.1**: The quantities solid particles emitted by Dimond long run roofing and cladding, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere.

Quality Assurance

Vented NC Batten is manufactured to profile dimension tolerances that have been accounted for in the design load/span capacities.

Vented NC Batten is manufactured from grade Z450 galvanized steel, 1.45 mm G500 base metal that complies with the tolerances in AS/NZS 1365.

Installation and Construction Instructions

It is the responsibility of the installer to ensure a safe working environment is in place, including appropriate scaffolding and personal safety equipment that is appropriate for handling, cutting and fixing galvanised steel profiles.

Before project commencement the installer and builder must check and approve the alignment and spacing of the framing members to which the batten will be fixed.

Vented NC Battens must be fixed with two screws per framing member with lengths butt-joined on a framing member and are supplied in standard 3600mm lengths which can be cut to length on site with a suitable power tool, avoiding damage to the galvanised coating.

DISCLAIMER