

Class 2

Building Product Information Sheet

Version 1

December 2023

Product Name

Logicwall

Product description and its intended use

AFS Logicwall is a permanent formwork system for internal and external load-bearing and non-load bearing reinforced concrete walls with structural, fire and acoustic performance characteristics.

AFS Logicwall types are as follows, the numerical values representing the thickness of the wall in millimetres, and "D" indicating double layer of reinforcing steel:

- 1. LW120
- 2. LW150
- 3. LW162
- 4. LW200
- 5. LW200D
- 6. LW262D

AFS Logicwall comprises:

- Galvanised cold-formed steel studs at 146mm centres, the studs having large lipped penetrations in their web element to facilitate placement of reinforcing steel and flow and subsequent bond of concrete fill.
- CSR Cemintel 6mm AFS Formwork Board bonded each side to the flanges of the studs.
- Reinforcing steel.
- Concrete fill.

Legal and trading name of manufacturer

Beatson Group Ltd trading as AFS New Zealand

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Relevant Building Code Clauses

B1 Structure — B1.3.1, B1.3.2, B1.3.3 (b, c, f, i, j, m), B1.3.4

B2 Durability — B2.3.1 (a), B2.3.2 (a, b)

C3 Fire affecting areas beyond the fire source — C3.4 (a), C3.6

C6 Structural stability - C6.2

F2 Hazardous building materials — F2.3.1

G6 Airborne and impact sound — G6.3.1

Statement on how the building product is expected to contribute to compliance

- B1 Logicwall is an engineered system, with specifications provided by a certified structural engineer. Please refer to the Logicwall Design Guide for further information including design tables and limitations. There are also test reports available from University of Canterbury and Holmes Solutions outlining Logicwall's compliance with B1.
- B2 Once constructed, Logicwall does not contribute to the structural capacity of the wall which acts as a normal concrete structure. When used and constructed in accordance with the design guide instructions, the Logicwall system complies with B2.
- C3 Once core filled with concrete, Logicwall achieves a fire rating of at least 240/240/180.
- C6 Once core filled with concrete, Logicwall achieves a fire rating of at least 240/240/180.
- F2 Raw materials used in Logicwall are galvanized steel stud, Cemintel fibre cement board and Bostik structural glue. All materials are inert substances.
- G6 Only the 162mm thick panels and above meet or exceed 55STC acoustic ratings for intertenancy walls. Additional strapping and lining can be used to increase the acoustic ratings on all wall thicknesses.

Limitations on the use of the product

When used as an external wall, Logicwall will need to be protected from the weather to meet E2 requirements. This can be in the form of an external acrylic render or cladding system. Logicwall also does not meet the requirements for thermal insulation. Additional work is required, either through exterior insulation or strapping and lining the interior wall with thermal insulation.

Design requirements that would support the appropriate use of the building product

Logicwall is a structural concrete wall that falls outside of NZS3604 so requires a structural engineering design as well as producer statements for building consent applications. AFS has design guides available on their website that include engineering design tables, interior and exterior architectural design requirements, and other trade coordination. These are available at https://www.afswall.co.nz/logicwall-resources/



Installation Requirements

See the Logicwall installation guide at https://www.afswall.co.nz/logicwall-resources/. This includes information on panel install, reinforcing placement, and concrete placement.

Maintenance Requirements

Logicwall must be finished internally and externally in accordance with the AFS Design Guide. The internal and external finishing system applied to the Logicwall must be maintained in a manner that protects the panels from exposure to weathering.

Is the building product subject to warning or ban under section 26 of the Building Act 2004?

No