

Product Technical Statement



Supplier | Stellaria NZ Ltd
Contact | PO Box 89
Cambridge 3434
Phone | +64 27 220 7046
Email | robyn@macarch.co.nz
Website | www.stellaria.co.nz

Product: Argeton and Argelite Façade Systems

Description: The Argeton and Argelite façade systems are ventilated façade systems, consisting of extruded ceramic tiles fixed to aluminium subframes attached to the supporting structure.

For the Argeton façade system the façade tile are attached either by four clips on vertical aluminium profiles (fixing system V-UK) or by four aluminium clamps on horizontal aluminium profiles (fixing system H-UK). Aluminium joint-profiles are installed in the vertical joints between the façade tiles.

For the Argelite façade system the façade panel/tile is held by positive engagement between the back-panel profile and a horizontal fixing profile attached to a vertical timber or aluminium substructure.

Argeton and Argelite façade tiles, the aluminium clips, clamps, carrier rails and joint profiles are non-combustible.

Scope of Use: This certificate covers the use of the Argeton and Argelite façade systems on new or existing buildings:

- located in any wind zone up to and including Extra High (as classified in NZS3604) or where the building is specifically designed to AS/NZS1170 "Structural Design Actions" up to a maximum design wind pressure differential of 2.5kPa (ULS).
- for exposure zones B, C, and D as described in NZS3604
- for all seismic zones as described in NZS3604

Conditions: The Argeton and Argelite Façade Systems must be designed and installed in accordance with the details in the Argeton Façade Solutions Technical Information. The suitability of the clips/clamps, profiles and subframes must be verified before use in industrial or geothermal microclimates, or exposure zone E (as classified in NZS3604)

Limitations: The attachment of the aluminium subframes to the supporting structure is outside the scope of this certificate, and is subject to specific design.

Technical Literature: BBA Agreement Certificate 08/4516 Argeton Terracotta Rainscreen Cladding System

DIBt Approvals: General Technical Approval Z-33.1-1032 Façade cladding system "Argeton TAMPA"; General Building Inspectorate Approval Z-10.3-730 Ventilated façade system "Argelite"

Argeton Façade Solutions Technical Information May 2014

When used as described above, Argeton and Argelite Façade Systems meet the following relevant performance requirements of the New Zealand Building Code

Relevant Code Clause:	Basis of Compliance:	Related documents:	Comments:
Structure B1.3.1	Building code performance based on calculations, tests, simulations, etc not contained in Verification Methods	B1/VM1; BBA Agreement Certificate; BIDt Approvals	Argeton and Argelite façade systems meet the German Building Inspectorate specifications for ventilated wall claddings, using EN standard test methods and procedures. The Argeton façade system has a BBA Agreement certificate. These requirements also satisfy the NZ Building Code for structural performance.
Structure B1.3.2	Building code performance based on calculations, tests, simulations, etc not contained in Verification Methods	B1/VM1; BBA Agreement Certificate; BIDt Approvals	Argeton and Argelite façade systems meet the German Building Inspectorate specifications for ventilated wall claddings, using EN standard test methods and procedures. The Argeton façade system has a BBA Agreement certificate. These requirements also satisfy the NZ Building Code for structural performance.
Structure B1.3.3a, f, h	Building code performance based on calculations, tests, simulations, etc not contained in Verification Methods	B1/VM1; BBA Agreement Certificate; BIDt Approvals	Argeton tiles fixed no more than 600mm apart horizontally and 300mm vertically are suitable for maximum wind pressures of 2.4kPa for serviceability and 3.6 kPa for safety (ULS). The maximum allowable wind loading for Argelite panels is dependent on the spacing between vertical substrate profiles and the fixing of horizontal profiles to them. Design of the cladding support structure should be such as to limit the midspan deflections to L/200 and cantilever deflections to L/150. Performance under seismic loads can be inferred by specific design from the allowable wind loads.
Structure B1.3.4	Verification method	B1/VM1	The installation of Argeton and Argelite façade systems is tolerant of variability of the supporting structure, and is resilient to the failure of any particular component.
Durability B2.3.1b	Verification method	B2/VM1; BBA Agreement Certificate; BIDt Approvals	Argeton and Argelite façade tiles are ceramic with low water absorption and are not affected by freeze-thaw. The fixing clips and screws, and aluminium fixing rails, are suitable for use in corrosive marine environments.
Durability B2.3.2b	Verification method	B2/VM1; BBA Agreement Certificate; BIDt Approvals	All components exceed the required durability of 15 years, and are likely to have service life in excess of 50 years. Individual tiles are easily removed if access is required to replace fixings.
Fire affecting areas beyond the fire source C3.5 (Contributes to)	Specific design to Verification Method	C/VM2	The components of the Argeton and Argelite façade systems are non-combustible.
Fire affecting areas beyond the fire source C3.7 (Contributes to)	Building Code performance	C3.7a	The components of the Argeton or Argelite façades are non-combustible.
External moisture E2.3.2 (Contributes to)			The Argeton and Argelite façade systems are ventilated façades that contribute to the management of external moisture. Weathertightness and airtightness is determined by the specific construction details of the supporting structure.
Hazardous building materials F2.3.1	Alternative solution		None of the components of the Argeton or Argelite façade systems contain or emit harmful materials.