



Building Product Information Sheet | Class 1

Product Name: Firth Certified Ready Mixed Concrete

Product Line: N/A

Product Description & its intended use (*measurements, materials, usage*):

Firth Certified Ready Mixed Concrete is suitable for a range of structural and aesthetic purposes when designed, specified, and installed by appropriately qualified persons.

Firth Certified Ready Mixed Concrete is available in a range of strengths, colours, binder contents, rheological properties, and densities to achieve the performance requirements presented in written form by others. For "Normal Concrete" (NZS3104) the 28-day cylinder strength is the primary specified parameter. For "Special Concrete" the performance requirements and methods of measurement are presented in writing by the designer. Building Product Warranty statements are available on the Firth website.

Product Identifier: N/A

Place of Manufacture: Aotearoa New Zealand

Legal & Trading name of Manufacturer(s): Fletcher Concrete & Infrastructure Ltd T/A Firth Industries

Address for Service: 810 Great South Road, Penrose, Auckland

Website: www.firth.co.nz

Email Address: info@firth.co.nz

Phone No.: 0800 FIRTH 1

NZBN (If applicable): N/A



Relevant Building Code Clauses:

Firth manufactures its ready mixed concrete to NZS3104 with testing to NZS3112.2. Firth operates an independently audited quality management system confirming to AS/NZS ISO9001. In addition, plants are audited independently by the Concrete NZ Plant Audit scheme to confirm compliance with NZS3104. Current Plant audit status of Firth Plants can be obtained at www.rmclplantaudit.org.nz

With appropriate design, construction, and maintenance (see below), Firth Certified ready mixed concrete can demonstrate compliance with-

- B1-Structure: Performance clauses B1.3.1 to B1.3.4
- B2- Durability: Performance clauses B2.3.1 and B2.3.2.
- C6- Structural stability during fire: Performance clauses C6.2
- D1- Assess Routes: Performance clauses D1.3.3(d)
- E2- External moisture: Performance clauses E2.3.2 and E2.3.3
- F2- Hazardous materials: Performance clauses F2.3.1

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

To ensure compliance with the NZBC, design to determine the performance requirements of the concrete shall be conducted by suitably qualified persons familiar with a range of NZ Design Standards. In addition, construction shall be conducted by appropriately skilled persons in strict accordance with NZS3109 and good trade practice.

Structure - B1: Compliance for concrete is determined by achieving 28-day compressive strengths specified by others (Designer) for a design compliant with design Standards such as NZS3101. Firth's in-house and independent quality auditing ensure concrete strength at dispatch from the manufacturing plant, exceed the rejection limits specified by NZS3109. Concrete placement, on site control, vibration, and curing is the responsibility of others.

Durability - B2: Compliance for concrete is typically specified by other (Designer) by specifying 28-day compressive strengths and binder contents/compositions in accordance with design standard such as NZS3101. Firth's in-house and independent quality auditing ensure concrete production follows good manufacturing practice as defined by NZS3104. Concrete placement, vibration, cover to reinforcement, and curing is the responsibility of others.

Fire Performance - C6: Firth Certified Concrete® is classified as non-combustible with fire ratings determined by others (designer) using Standard such as NZS3101.

Access Routes D1- The required surface skid resistance of trafficable surfaces for access routes is specified by others (Designer)

D1/AS1 provides guidance on the performance of various surface textures. Compliance with D1 is achieved by others (Designer) specifying the required surface texture and/or confirmatory skid resistance testing.

External Moisture E2- the specification of details is determined by others (Designer). E2/AS3 provides detailed to ensure compliance.

Hazardous Building Materials - F2: Firth Certified Concrete® comply with the requirements of section F2.3.1 of the NZBCS



Limitations on the use of the building product:

The texture and colour of Firth Certified Concrete® will vary due to the natural materials used in manufacture and the finishing/curing techniques utilised, so some variability must be expected. Efflorescence, pinto, delamination, or colour variation is not deemed a Firth product defect as control is outside of the responsibility of Firth. The control and management of concrete cracking is the responsibility of the designer (appropriate positions of joints and reinforcement) or the concrete placer/builder (early age protection and curing).

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

Concrete is a product which is combined with a range of other products such as hardfill, reinforcement, fibres, supports, anchors, structural steel, insulation, void forming pods, specialist surface finishes, jointing systems etc. to produce the end product.

To ensure compliance with the NZBC, design to determine the performance requirements of the concrete shall be conducted by suitably qualified persons familiar with a range of NZ Design Standards and the preparation of specifications for construction.

Installation requirements:

Concrete is a product which is combined with a range of other products such as hardfill, reinforcement, fibres, supports, anchors, structural steel, insulation, void forming pods, specialist surface finishes, jointing systems etc. to produce the end product.

To ensure compliance with the NZBC, construction shall be conducted by appropriately skilled persons in strict accordance with the designer's specification, NZS3109 and good trade practice.

Maintenance Requirements:

Firth Certified Concrete® shall be maintained by annual inspection and cleaning as necessary as specified by the designer.

Is the building product/building product line subject to warning or ban under section 26?: No

If yes, description of warning or ban under section 26: N/A

Date: 13 October 2023