



---

## **PRODUCT TECHNICAL STATEMENT – RESIDENTIAL**

---

### **PRODUCT DESCRIPTION**

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 quality objective. For "Special Concrete" the performance requirements and methods of measure are presented in writing by the designer.

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 NZRMCA Plant Audit scheme to confirm compliance with NZS3104. Current Plant audit status of Firth Plants can be obtained at [www.rmclantaudit.org.nz](http://www.rmclantaudit.org.nz).

### **SCOPE OF USE**

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

### **COMPLIANCE WITH THE NEW ZEALAND BUILDING CODE**

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. 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). 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 determined by achieving 28 day compressive strengths and binder contents/compositions specified by others (Designer). 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 - C:** Firth Certified Concrete® is classified as non-combustible with fire ratings determined by NZS3101.

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

### **APPEARANCE**

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).

### **MAINTENANCE**

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

---