



# BUILDING PRODUCT INFORMATION SHEET – CLASS 1

**PRODUCT NAME: PERMCON**

**PRODUCT CATEGORY: CONCRETE**

## PRODUCT DESCRIPTION AND INTENDED USE

Permeable Concrete New Zealand's Permcon permeable concrete is designed to mitigate storm water runoff when specified, manufactured and installed by appropriate persons.

The Permcon product is available in a range of colours and can be installed at different depths to achieve the performance requirements, as detailed by others. The performance of Permcon can be measured by 28-day cylinder strength tests to NZS 3112.2-1986 and permeability tests to ASTM C 17011C 1701M-09. Product warranty statements can be provided.

Product Identifier	Permcon
Place of Manufacture	New Zealand
Legal and Trading name	Permeable Concrete New Zealand
Address for Service	24 Hoteo Avenue, Papatoetoe, Auckland
Website	<a href="http://www.permconnz.co.nz">www.permconnz.co.nz</a>
Email Address	<a href="mailto:info@permconnz.co.nz">info@permconnz.co.nz</a>
Phone number	027 224 1361
NZBN	9429047052475



## RELEVANT BUILDING CODE

Permeable Concrete New Zealand manufactures the Permcon permeable concrete to NZS3104 and tests to NZS3112.2 by Firth Industries under a Toll manufacturing agreement. Firth Industries operates an independently audited quality management system conforming to AS/NZS ISO9001. In addition, plants are independently audited by the Concrete NZ plant audit scheme to confirm compliance with NZS3104.

With appropriate design, manufacture and installation by accredited installers, Permcon permeable 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

**D1 – Access Routes:** performance clause D1.3.3(d)

**E1 – Surface water:** performance clauses E1.3.1 to E1.3.3

**F2 – Hazardous materials:** performance clause F2.3.1

## STATEMENT ABOUT HOW PERMCON PERMEABLE CONCRETE IS EXPECTED TO CONTRIBUTE TO COMPLIANCE

To ensure the product meets compliance, design is to the expected traffic loadings. In addition, manufacture and installation is to be under the supervision of a Permeable Concrete New Zealand representative or appropriately nominated person by Permeable Concrete New Zealand demonstrating the skills and knowledge required.

Permcon permeable concrete is part of a system with permeable aggregates and underdrains to manage stormwater volumes, appropriate design is required and surfaces will need to fall away from buildings with stormwater drains as required to manage and direct any surface water run off, finish heights at building slab need to comply with the provisions of E2/AS1.

**Structure B1** – compliance is determined by achieving a 28-day compressive strength – usually 25 MPa. Permeable Concrete New Zealand trains the individual batchers of the product in correct methods of manufacture of the Permcon product at their plant, and placement on site is done only by accredited and trained installers.

**Durability B2** – compliance is usually determined by achieving the stated 25MPa compressive strength. The Permcon additive included in the batching process at the plant improves the curing properties of the Permcon product. Placement on site is only to be done by suitably trained and accredited installers.

**Access Routes D1** – Permcon permeable concrete achieves a slip resistance of P4 0.45-0.54 BPN when designed to D1/AS1 and installed by appropriately trained and accredited installers.

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**Surface water E1** – Permcon permeable concrete meets the specification of E1 when designed appropriately and installed by suitably trained and accredited installers.

**Hazardous building materials F2** – Permcon permeable concrete complies with the requirements of section F2.3.1 of the NZBCS.

## LIMITATIONS ON THE USE OF PERMCON PERMEABLE CONCRETE

The texture and colour of the Permeable Concrete New Zealand Permcon product will vary due to the natural materials used in the manufacture and the environmental conditions on the day of placement, so some variability is to be expected. Efflorescence, pinto or colour variation is not deemed a product defect. Concrete cracking due to shrinkage is mitigated on site by early crack control joint cutting or installation of mechanical control joints during placement, but shrinkage cracks can occur outside of these measures and is not deemed a product defect or fault of Permeable Concrete New Zealand.

## DESIGN REQUIREMENTS THAT SUPPORT THE USE OF PERMCON PERMEABLE CONCRETE

Permcon permeable concrete is combined with other products such as aggregates (permeable and impermeable) geocloths, fibres, drainage systems, oxides and jointing systems to produce a permeable system.

To ensure compliance with relevant codes and standards, design of the system should be by qualified and informed persons to meet loading and drainage requirements.

## INSTALLATION REQUIREMENTS

Permcon permeable concrete is combined with other products such as aggregates (permeable and impermeable) geocloths, fibres, drainage systems, oxides and jointing systems to produce a permeable system.

To ensure compliance with the design details, installation should only be conducted by appropriately trained and accredited installers.

## MAINTENANCE REQUIREMENTS

Permcon permeable concrete shall be maintained by regular inspection and cleaning as necessary, as noted on the Permeable Concrete New Zealand website.

**Is the product subject to warning or ban under section 26:** No

**If yes, description of warning or ban under section 26:** Not Applicable