

ENVIROCON® INTERBLOC® SYSTEM

AUSTRALIAN STANDARDS

THE STANDARDS THAT APPLY TO INTERBLOC® IN AUSTRALIA
AND HOW THE SYSTEM MEETS THEM

For engineers, councils and clients · October 2026



AS 1379 AS 3600 AS/NZS 1170 AS 4678 AS 3850

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01 THE INTERBLOC® SYSTEM

A PRECAST BLOCK MADE IN AUSTRALIA FROM EXCESS READY-MIX CONCRETE

Interbloc® is a precast concrete block manufactured in Australia by Envirocon® licensees from excess ready-mix concrete. Blocks are dry-stacked to build gravity retaining walls, bunkers, bins and barriers. Where gravity mass alone is not enough, walls are vertically reinforced with Envirocon® fixing kits. Every block is cast with Reid foot anchors for lifting and placement, and gravity walls are designed with Envirocalc®, the Envirocon® design tool.

Four things matter for compliance: how the block is made, how the wall is designed, how it is reinforced, and how it is lifted. The standards in this guide cover each of these.

FOUR AREAS OF COMPLIANCE

01**BLOCK MANUFACTURE**

AS 1379 · AS 3600 · AS 3610.1

02**WALL DESIGN**

AS/NZS 1170.0 · 1170.1 · AS 1170.4 · AS 4678

03**VERTICAL REINFORCING**

AS 5216 · AS/NZS 4680

04**LIFTING AND PLACEMENT**

AS 3850.1 · AS 3850.3 · AS 3775 · AS/NZS 4680

DISCLAIMER

This document is general guidance on how the Interbloc® system relates to Australian standards. It is not a design, a certificate of compliance or engineering advice for any project. Every wall and every lift must be designed for its own site, loads and conditions, and signed off by an independent engineer registered to practise in the relevant state or territory.

02 RELEVANT STANDARDS

WHAT EACH STANDARD COVERS AND HOW INTERBLOC® MEETS IT

STANDARD	APPLIES TO	HOW THE INTERBLOC® SYSTEM MEETS IT
AS 1379-2007 Specification and supply of concrete	BLOCK MANUFACTURE	Blocks are cast from ready-mix concrete supplied from plants in compliance with AS 1379. Minimum strengths of 15 MPa at de-mould (25 MPa for capper and taper blocks) and 25 MPa at placement are set by the Reid lifting certification.
AS 3600:2018 Concrete structures	BLOCK MANUFACTURE, LIFTING	The concrete design around the cast-in foot anchor is certified by Reid to AS 3600.
AS 3610.1:2018 Formwork for concrete, Part 1	BLOCK FINISH	Surface finish class for blocks is specified by the project using the AS 3610.1 classes, as road authority specifications require.
AS/NZS 1170.0:2002 Structural design actions, General principles	WALL DESIGN	Envirocalc® applies the limit state method, importance level, design life and load combinations of AS/NZS 1170.0 to every gravity wall.
AS/NZS 1170.1:2002 Structural design actions, Permanent, imposed and other actions	WALL DESIGN	Permanent and imposed surcharge loads behind the wall are entered and factored in accordance with AS/NZS 1170.1.
AS 1170.4:2024 Structural design actions, Earthquake actions in Australia	WALL DESIGN	The project engineer derives the site horizontal acceleration from AS 1170.4 and enters it in Envirocalc®, which applies it to the earthquake earth pressure and the inertial forces on the wall.

STANDARD	APPLIES TO	HOW THE INTERBLOC® SYSTEM MEETS IT
AS 4678:2002 Earth-retaining structures	WALL DESIGN	Envirocalc® applies the AS 4678 design uncertainty factors to soil strength, uses active or at rest earth pressure as the engineer selects, and checks overturning, sliding and bearing capacity at the ultimate limit state, overall and at every block layer.
AS 5216:2026 Design of post-installed and cast-in fastenings in concrete	VERTICAL REINFORCING	Fixing kits use a Ramset Epcon C6+ chemical anchor with a European Technical Assessment, so the project engineer can design the anchorage to AS 5216.
AS 3850.1:2024 Prefabricated concrete elements, General requirements	LIFTING	Reid foot anchors are certified to AS 3850.1 (Clause 2.2 and Table 2.1, Appendix A and Clause 2.5) with a factor of safety of 4. The Interbloc® lifting arrangement is certified by Reid (REQ-1895).
AS 3850.3:2026 Prefabricated concrete elements, Civil construction	LIFTING, PLACEMENT	Interbloc® is a civil precast product. Handling, transport and placement follow AS 3850.3 and the Envirocon® lifting guidelines.
AS 3775.1 and AS 3775.2:2014 Chain slings for lifting purposes	LIFTING	Chain slings used with the Envirocon® lifting kit fall under AS 3775 for manufacture, inspection and tagging. The sling angle is 60 degrees as set in the Reid certification.
AS/NZS 4680:2025 Hot-dip galvanized coatings on fabricated ferrous articles	LIFTING, VERTICAL REINFORCING	Reid foot anchors are galvanised to AS/NZS 4680. Fixing kit plates are hot-dip galvanised.

NOTE

Editions listed are the current published editions at October 2026. Queensland TMR MRTS72 and Transport for NSW TS 01738 set additional requirements for precast elements on road projects and are met project by project.

03 HOW THE SYSTEM MEETS THEM

MANUFACTURE, DESIGN, REINFORCING AND LIFTING

3.1 BLOCK MANUFACTURE

Envirocon® cast blocks in Envirocon® moulds under the Envirocon® quality management plan. Concrete is supplied from concrete plants in compliance with AS 1379, and blocks are lifted only once they reach the minimum strength set in the Reid certification. Dimensional tolerances are set in the Interbloc® Technical Specification, and surface finish is specified to AS 3610.1 classes where a project requires it.

3.2 GRAVITY WALL DESIGN

Envirocalc® designs gravity walls to AS/NZS 1170.0, AS/NZS 1170.1 and AS 4678. The engineer enters the site soil parameters from the geotechnical investigation, the surcharge loads, the importance level and design life, and the site horizontal acceleration from AS 1170.4. The tool factors the actions, applies the AS 4678 design uncertainty factors, and checks overturning, sliding (short and long term) and bearing capacity for the static and earthquake cases, overall and at every block layer.

The report records every input, every equation and every check so a reviewer can verify the design. The

method is set out in full in the Envirocon® Gravity Wall Design Manual (Australia).

3.3 VERTICAL REINFORCING

Where a wall needs more than gravity mass, Envirocon® fixing kits (ENV-RB20, RB25 and RB32) tie the courses together with Reidbar Grade 500E bar set in Ramset Epcon C6+ chemical anchor, through Grade 350 hot-dip galvanised plates. The anchor carries a European Technical Assessment, so the project engineer designs the anchorage to AS 5216 and the reinforced wall to AS 3600 and AS/NZS 1170.0.

3.4 LIFTING AND PLACEMENT

Every block is cast with Reid foot anchors certified to AS 3850.1. The Interbloc® lifting arrangement, including the lifting kit, sling angle and minimum concrete strengths, is certified by Reid under REQ-1895 to AS 3850, AS 3600 and AS 1170. Blocks are handled and placed in accordance with AS 3850.3, the Envirocon® lifting guidelines and the work health and safety regulations of the state or territory.

WHAT STAYS WITH THE PROJECT ENGINEER

The Interbloc® system gives the engineer a certified block, a certified lifting arrangement and a transparent design tool. The engineer remains responsible for the site-specific inputs (geotechnical parameters, surcharge, importance level, horizontal acceleration and earth pressure choice), for global stability, drainage, serviceability and durability, for the design of any vertically reinforced wall or engineered foundation, and for signing off the design. Envirocon® recommends independent peer review of every design.

CONCRETE KEPT IN CIRCULATION

At Envirocon®, we lead the way in sustainable construction with our innovative precast concrete block system, transforming surplus concrete into durable, reusable building solutions.

As the country's first accredited construction product stewardship scheme, our buyback guarantee keeps concrete in circulation and out of landfills.

THE ENVIROCON® SYSTEM

INTERBLOC®	Interlocking precast concrete blocks for retaining walls, storage bays and push walls.
ENVIROBUILD®	3D design, visualisation and block quantification.
ENVIROCALC®	Cloud-based gravity retaining wall design verification.

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