DINCEL
STRUCTURAL WALLING

To What Extent Are Dincel Walls Waterproof?

To What Extent Are Dincel Products Waterproof?

Dincel products are waterproof only to the extent set out below.

The following Dincel products (Select Dincel Products):

(a) any Dincel Products detailed in the Dincel Construction Manual that incorporates the Dincel patented snap lock joint,

can satisfy the following requirements relevant to waterproofing

(Test Requirements):

(b) the BCA requirements in F3P1 and F2P2 (Volume 1 - Class 2 to Class 9 Buildings), as well as in H2P2 and H4P1 (Volume 2 - Class 1 and Class 10 Buildings);

(c) ASTM E 514-08 (Standard Test Method for Water Penetration and Leakage Through Masonry);

(d) AS/NZS 4347.1:1995 (Damp-proof courses and flashings - Methods of Test - Method 1: Determination of Water Permeability);

(e) ASTM E 96/M 96M-05 (Standard Test Method for Water Vapour Transmission of Materials); and

(f) the requirements of AS3735-2001 for liquid tightness (when a water tank is constructed using the Select Dincel Products and additionally waterproofed at the base of the walls, before being tested in the method in Clause 7.3 of AS3735),

per the testing, qualification and limitations set out in the following certificates (Certificates):

(g) https://www.dincel.com.au/resources/type/compliance/

provided that the Select Dincel Products are installed by a competent installation practitioner in accordance with the Dincel Construction Manual (Conditions) including by:

(h) using snap lock joints and concrete as specified in the Dincel Construction Manual; and

(i) ensuring that there are no concrete voids, that the earth side of all the Dincel Products is not pierced or compromised in any way, that any penetration (including for pipes or services) is appropriately waterproofed on the earth side, that any Select Dincel Products cut vertically or Dincel Products not incorporating a snap lock joint are sealed with a Dincel nominated waterproof bandage on the earth side, and that no Dincel Products are butt joined horizontally along the height of the wall,

and subject to the further qualifications that (Qualifications):

(j) only the Select Dincel Products have been tested to determine whether they satisfy the Test Requirements with respect to waterproofing. Dincel does not make any representation as to the waterproof qualities of products which are not Select Dincel Products;

(k) the interface between the Select Dincel Products and adjacent materials, surfaces or products will not satisfy the Test Requirements unless additional measures are taken (refer to the diagram at right for explanation);

(l) without limiting the foregoing, the joints between the floor and the Select Dincel Products, the roof slab and the Select Dincel Products, and any adjacent wall and the Select Dincel Products, will not be waterproof unless separate measures are taken to ensure that those joints are waterproof. You should consult appropriate design and building professionals in order to determine the waterproofing measures required in particular applications; and

(m) the wall must be adequately designed according to AS3600 taking into account all water pressure loads (both current and potential future), backfill loads and any other lateral loads that may cause deflection of the Select Dincel Products and compromise the Dincel snap lock joint.

In Summary.

A wall constructed using the Select Dincel Products will be waterproof (as set out in this document) provided that:

- the installation of the Select Dincel Products, the placement of the steel reinforcement and placement of concrete are undertaken by appropriately skilled personnel and in strict conformance with the Dincel Construction Manual; and

- the wall has been appropriately and adequately designed by a suitably qualified engineering professional, ensuring that lateral loads on the wall do not compromise the integrity of the snap lock joints, however, where that wall joins to or interfaces with another structure or product (including a floor slab, roof slab or adjacent wall, other than an adjacent wall also constructed using Select Dincel Products) then that interface point or joint will not be waterproof unless additional measures are taken to ensure that it is waterproof those measures need to be assessed by the appropriate design and building professionals).

B.2. WATERPROOFING

The permanent polymer skin of a Dincel wall along with the panel 'snap-lock' joints acts as a protective waterproof membrane for up to 6m of waterhead pressure. It is important to adequately waterproof all wall junctions and any Dincel walling connections which do not utilise the 'snap-lock' joint (such as where panels are cut and joined together). The below diagram provides an illustrative example of the key areas which must be additionally waterproofed in a below ground or submerged application.

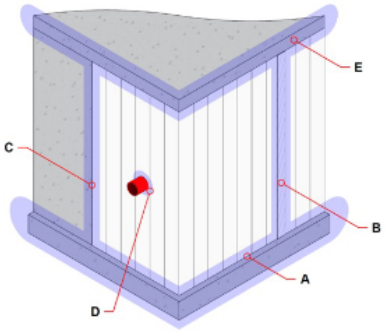
A - Wall to slab junction at base.

B - Any panel/accessory joints which do not utilise the 'snap-lock' connection (such as where a panel is cut and a P-WS accessory is used). Please refer to Section B.1.1. Option 2.

C - Junctions with other walling types.

D - Any wall opening or penetration.

E - Junctions with concrete slab above wall.
Note: an exposed slab edge is not recommended, please refer to Section B.3 for detailing.



AREAS HIGHLIGHTED MUST BE ADDITIONALLY WATERPROOFED

When waterproofing the above locations, best results will be achieved where the waterproofing is applied to the positive (exterior/wet) face. This way, water is prevented from entering into the system in the first instance. Compatible waterproofing membranes applied over these surfaces are usually the most reliable way to achieve this where sufficient access is provided.

Please refer to the Dincel Construction Manual for the most current version of the above diagram.

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