



TECH-DRY

Water Repellent Blocks

Tech-Dry water repellent concrete blocks are ideal for single leaf external, parapet, retainer, basement walls and anywhere a water repellent wall is required. The water-repellent aspect is an integral part of the entire Tech-Dry block as an active waterproofing emulsion is blended throughout the entire block and will not break down or wash out over time. Tech-Dry blocks can also be made to order with 40% recycled glass aggregates to provide sustainable Green Star compliant water-repellent blocks. The feature glass aggregate used in the blocks also results in a unique cost-effective surface finish for no additional cost.



- CSIRO tested in wind driven rain
- Huge range of colours & finishes available
- 190mm, 240mm & 290mm wide options
- Water repellent mortar additive
- Prevents efflorescence
- Sustainable certified alternative

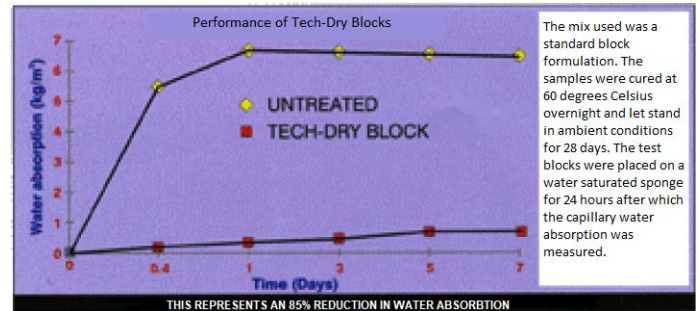


The Tech-Dry block is ideal for single leaf, parapet, retainer, basement walls and anywhere a water repellent wall is required.

A breakthrough in manufacturing technology means that the water repellence is an integral part of the entire Tech-Dry block and not just a surface effect as with surface sealers. The active admix is blended throughout the entire block and will not break down or wash out over time. A mortar additive is supplied to create water repellent mortar joints to establish a totally water repellent wall. The Tech-Dry blocks may be painted over and rendered finishes may be applied.

The advantages of the Tech-Dry block can be summarised as:

1. Dramatic reduction in efflorescence.
2. Resistance to biological growth as the block remains dry (mould and moss etc).
3. Higher 28 day compression strength.
4. Higher 28 day flexural strength .
5. Colour retention.
6. Properties close to natural stone can be produced.
7. The Tech-Dry block exhibits high resistance to salts as water containing salt cannot enter.
8. Half the cost of liquid sealers.
9. Eliminates rising damp, therefore eliminating problems with applied finishes delaminating at lower ground level.
10. Easier to wash down as dirt and grime does not penetrate.



Tech-Dry pavers, retaining walls and bricks are also available and provide the same advantages as summarised above.



TESTING

A Tech-Dry mortar additive is supplied to create water-repellent mortar joints to establish a totally water-repellent wall. Tech-Dry blocks are the only accepted industry product that is “waterproof against wind-driven rain” as per CSIRO Tech-Dry test results. Tech-Dry blocks have been successfully used in the building industry for over 25 years and comply with relevant Australian Standards. Testing includes CSIRO test to ASTM E514-90 “Standard Test Method for Water Penetration and Leakage Through Masonry” and an ABSAC (Australian Building Systems Appraisal Council) technical opinion no.231 is also available.

AVAILABLE IN BLOCK SIZES 90mm, 190mm, 240mm, 290mm

01. MATERIALS & COMPONENTS

01.01 WATER REPELLENT CONCRETE MASONRY BLOCKS

Standards:

AS 2758.1-1998	Aggregates and rock for engineering purposes	Concrete aggregates
AS 3700-2001	Masonry structures	
AS 3972-1997	Portland and blended cements	
AS/NZS 4455-1997	Masonry units and segmented pavers	
ASTM E514.90	Standard test method for water penetration and leakage through masonry	

Manufacturer:

Requirement: Obtain water repellent concrete masonry blocks from an approved manufacturer that has in place facilities for supplying water repellent blocks that meets this specification and supplies certification that blocks supplied for the project have been manufactured in the correct manner with the TECH-DRY water repellent admixture specified.

Water repellent admixture:

Proprietary item: TECH-DRY Block Emulsion, product code RPBE; being a silane/siloxane emulsion. Manufacture of blocks shall be in accordance with TECH-DRY specifications that includes the following requirements.

Dosage: Add one litre of TECH-DRY Block Emulsion to every 1000kg of mixed cement and aggregate.

Mixing: Pre-mix TECH-DRY Block Emulsion at the ratio of 1 part emulsion to 10 parts water, which is then incorporated into the water line as the water enters the production line mixer.

Drying: Manufacturers shall not use high pressure autoclaving when drying water repellent blocks. Use low-pressure steam curing using as little water as possible. Keep blocks away from water and sun for a period of at least 10 days after manufacture.

01.02 WATER REPELLENT MORTAR MIX

Mortar materials:

Sand: Fine aggregate with low clay content (Brickie Sand) and free from efflorescing salts, selected for colour and grading.

Colour: Sand shall be selected for colour where used in face work; obtained from the same pit.

Cement type to AS 3972: GP (Portland Cement).

Water: Clean and fresh.

Water repellent admixture: As specified below.

Mixing: For consistency of strength and colour batch mix mortar.

Water repellent admixture:

Proprietary item: TECH-DRY Techdryad Mortar Additive, product code RPTDADMA; being an approved water repellent admixture. Available from Island Block & Paving.

Description:

TECH-DRYAD MORTAR ADDITIVE is a water repellent admixture for cement/sand mortars. It not only makes the mortar water resistant and reduces the mortar efflorescing, but also improves the adhesion of the mortar to the water repellent blocks (or Tech-Dry Blocks) and improves the workability of the mortar mixture.

Recommended Uses: TECHDRYAD MORTAR ADDITIVE is recommended as a water repellent admixture for cement/sand mortar designed specifically for laying water repellent concrete blocks (or Tech-Dry Blocks) made with the addition of Tech-Dry Block Emulsion. It may also be used as a water-resistant admixture for other cement/sand mixtures such as cement/sand renders or concrete masonry.

Use Instructions: **Consumption rate**
The 20 litres of TECHDRYAD MORTAR ADDITIVE will lay approximately 1000 190mm Tech-Dry Blocks.

Dosage: Add 400mils of TECH-DRY Techdryad Mortar Additive with two shovels of cement (approximately 12 kg) and 10 shovels of sand (approximately 60kg); do not exceed cement to sand ratio of 1 part cement to 5 parts sand. Mix can be 1:4 if required.

Mixing: The mortar admixture improves workability of the mortar which may necessitate less water being added to the mix. Due to the variation of masonry materials, it is strongly recommended that a pilot test on a small scale on site should be conducted prior to application to find out the most suitable mixing ratio under different conditions.

02. EXECUTION

02.01 CONSTRUCTION OF WATER REPELLENT BLOCKWORK

Water repellent blockwork:

Standard: All water repellent blocks must be laid with TECH-DRY Mortar Additive at the correct dosage levels in accordance with AS 3700 and the manufacturer's recommendations.

Supervision: The Contractor must supervise the construction of water repellent blockwork to ensure correct procedures are followed.

Weep holes: Walls must incorporate horizontal weep holes at the floor joint in each block to drain away any water that may become trapped inside the blocks.

Drainage: Partially fill the bottom course block cores with clean 20mm crushed blue metal or other similar drainage material. This is to help prevent mortar from the following courses blocking the weep holes.

Movement joints: Ensure that control joints and articulated joints are designed to prevent water penetration.

Reinforcement: Partial reinforcement and core filling must be used in a single skin wall to control wall cracking. When core filling water repellent blocks some seepage will occur, make sure it is cleaned off before it dries.

Perpends: Ensure that perpends are buttered on each side with a void in the middle. The mortar joints shall be well ruled inside and outside to provide a tightly sealed joint.

Webs: Do not put mortar in the web of the blocks.

Cleaning blockwork: Clean masonry progressively as the work proceeds as recommended by the manufacturer. Clean face work to remove mortar smears, stains and discolouration. DO NOT USE ACID.

Retaining walls: When backfilling behind retaining walls it is essential to have a good draining system in place behind the wall in accordance with good building practice and standards.

CONTACTS

ISLAND BLOCK & PAVING
16525 Midland Highway,
Breadalbane,
Tasmania 7300

ISLAND BLOCK & PAVING
41 Howard Road,
Glenorchy,
Tasmania 7010

ISLAND BLOCK & PAVING
8 Metrolink Cct,
Campbellfield,
Victoria 3061

ISLAND BLOCK & PAVING
24/7 Display Only
16 River Road,
Wivenhoe, Tasmania 7320

TASMANIA

VICTORIA

SOUTH AUSTRALIA

NEW SOUTH WALES

QUEENSLAND

DISTRIBUTOR LIST: islandblock.com.au/distributors

FREECALL 1800 004 499

Email: sales@islandblock.com.au
islandblock.com.au



“No one know Bricks, Blocks and Pavers better”

