

VERSATILE DRAINAGE GEOCOMPOSITE

MacDrain® is the modern way of draining and consolidating soils. It replaces the gravel drains used in building and construction, reducing the environmental impact of quarrying and transporting aggregates.

Excess water weakens soils, leading to loss of strength, settlement and erosion.

MacDrain® is the solution: it can be laid vertically, horizontally, or anything in between. It offers 3x the drainage capacity* compared to traditional gravel drains yet takes up a fraction of the space.

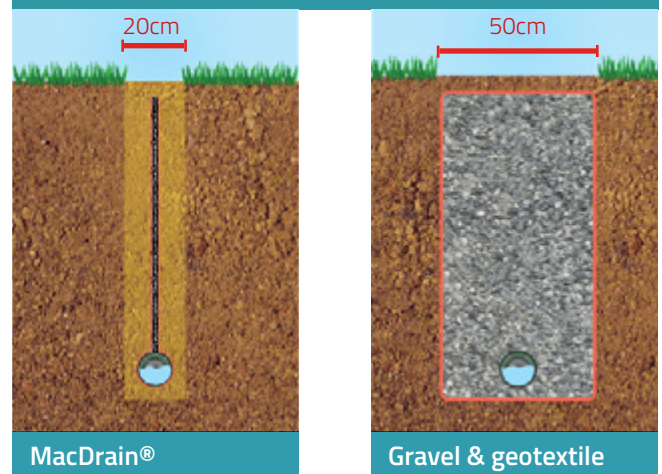


MacDrain®

Uses of MacDrain®

- M** Removing excess water from soils mitigating the problems caused
- M** Alleviating hydrostatic or pore-water pressure in soils, improving their geotechnical performance
- M** Collecting and draining gas, leachates and surface water in landfills and mines
- M** Consolidating embankments, earthworks and stockpiles made from marginal fills
- M** Findrains and trench drains along highways and railways
- M** Pitch drainage beneath artificial turf sports fields

Excavation reduction by 60% when using MacDrain®



MacDrain®

Gravel & geotextile

Benefits vs gravel drains

- M** Lightweight rolls are easy to handle and transport
- M** Easier, quicker and safer to install with less wastage
- M** Lab-tested reliable long term drainage performance
- M** Specific geotextile filters prevent clogging by fine particles in ground water
- M** Resistant to chemical and biological contaminants found in soils

Carbon footprint benefit

1 lorry load of MacDrain® delivers up to 11,600sqm of drainage. The equivalent in stone would require over 150 lorry loads. That provides a significant carbon footprint reduction and much less traffic on local roads.

* vs traditional gravel wrapped in geotextile to EN ISO 12958.
Gradient i=1 Pressure 10kPa

MACDRAIN®

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Environmental Product Declaration (EPD) in accordance with ISO 14025 and EN 15804:A1
 EPD reg no: EPD-Kiwa-EE-000377-EN
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www.kiwa.com

The basic components for successful drainage:

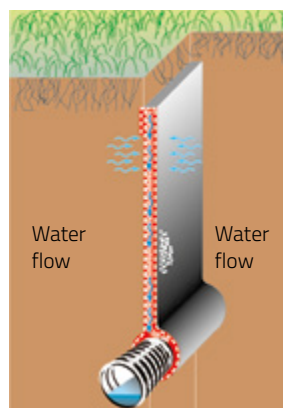
1. Capturing and conducting the free water or pore water pressure within the soil
2. Filtering the soil fine particles from the water to prevent clogging of the drainage core
3. Collecting the drained water and transporting it away

The range:

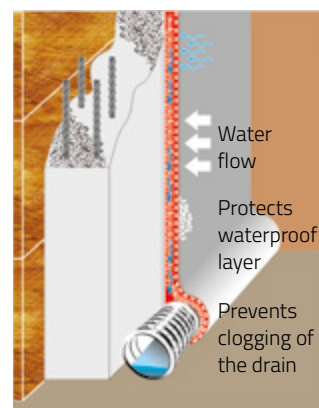
- M MacDrain M** – general purpose drainage applications
- M MacDrain W** – Ideal for up to 200kPa surcharge loads; landfill, beneath embankments and roads
- M MacDrain N** – Ideal for up to 400kPa surcharge loads; landfill, beneath embankments and roads
- M MacDrain TD** – For road/track-side drainage with an integral pocket for the drainage pipe



MacDrain® behind MacWall®



Trench drainage



Structural drainage



MacDrain® infrastructure drainage

Tried and tested:

MacDrain® is made in ISO9001 certified factories and lab tested to provide reassurance of long-term performance under load.

Customisable:

For specific project needs, **MacDrain®** can be customised to meet particular technical requirements by laminating different types of geotextiles or geomembranes to the selected drainage core.

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