



PERMA ROOF

Improved Ecotec Performance



IMPROVES THE PERFORMANCE OF GREEN-ECOTEC SOLUTIONS



SOIL
STRUCTURE



SOIL
HEALTH



MOISTURE
RETENTION



PLANT GROWTH
& NUTRIENTS

Green roof, green walls, eco-roofs, living roofs or horizontal vegetated partitions are all a form of green technology (green-ecotech).

They help mitigate many environmental challenges associated with city dwelling. Functionalities include assisting with stormwater management by acting as a buffer and reducing runoff while reducing surface temperature of the building due to the cooling effect of the evaporation. Furthermore, they provide good insulation, are aesthetically pleasing and provide a home for insects and other animal and bird life.

FEATURES:

- Permanent material for soil structure
- Improves utilisation of nutrients
- Improves water management
- Lightweight
- Easily blended



Key to the investment in green-ecotech is well performing materials that make the system function as intended.

Starting with a good waterproof membrane, root barrier and drainage, the sub structure is built up. The thickness can vary from shallow (20mm) to a more intensive roof of 100 - 150mm.

Unlike other lightweight aggregates such as perlite or pumice, **PERMAROOF™** offers good drainage characteristics, has the ability to store and supply plant nutrients and retain water, hence reducing stormwater impacts. This is where **PERMAROOF™** is the preferred material when mixed with the organic top layer at a rate of up to 30%.

PERMAROOF™ can also be used in a similar way for roof top planters and gardens.

Benefits

- Lightweight for roofing applications
- Mixed with the organic top layer to provide good soil structure
- Promotes strong root development and growth of the roof vegetation
- Retains and regulates moisture in the soil profile
- Reduces fertiliser use by retaining nutrients such as Ammonium (NH4) Nitrogen (N), Potassium (K), Calcium (Ca) and Magnesium (Mg) making them available to the plant
- Reduces nitrate leaching and adds to environmental protection
- Permanent addition to the soil profile, does not dissolve away
- Binds heavy metals
- Capital investment providing short, medium and long term benefits
- Biogro certified input for organics

USES FOR **PERMAROOF™**

Mix **PERMAROOF™** with the top layer of organic soil at a ratio of up to 30% volume for volume.

WHAT IS **PERMAROOF™**

Bulk density	450 - 620kg / Cu3
Porosity	60%
Slurry pH	8.65 (10% aq. suspension)
CEC	100 - 120meq / 100gm
Surface area	>200m ² / gm
Pore size	6 - 7 Angstroms
Colour	Off white
Absorbency	Water >80ml / 100gm
Hardness	~3 MOHs
Particle size	Can be adjusted to suit the blend. Typical grades 1 - 2, 1 - 4, 2 - 6mm

DOSAGE

	Dilution	Application
Agriculture	10:100	Varies by plant and soil type
Horticulture	10:100	Varies by plant and soil type

PACKAGING

20kg | Bulk

