

Fytogreen AUSTRALIA

Fytogreen Australia was established in Feb 2002.
Fytogreen supply a light weight, water efficient roof garden profile that has been used in Holland for over 20 years.

Since 1985, 2 million m² of roof gardens, podiums and planter boxes has been established in Europe using our Hydrocell profile.

Over the last five years we have created over 20 000m² of intensive roof gardens in Australia.

2007 saw the development our new extensive roof garden system.



Twice the green-half the water.

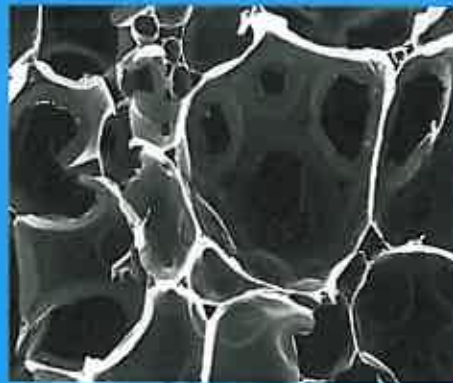
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Facts & Figures

By Volume Hydrocell has
3% dry matter
97% cavity

The cavity holds Air & water.
60% water holding (max)
37% air at saturation.

Roots hairs grow into and through the Hydrocell flake increasing the useable media volume.





Physical Properties

Urea Amino-plast resin foam

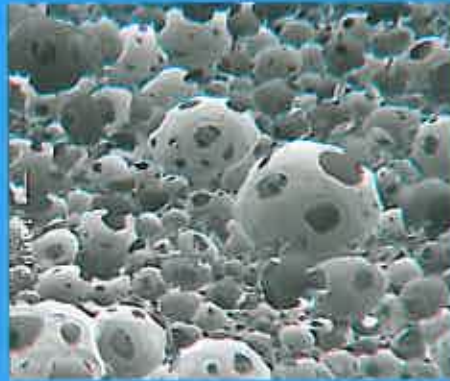
Environmentally safe

Biodegradable

Sterile /inert /water based

Light-weight

Non Hydrophobic



Products & General Applications

Hydrocell RG 30.

Solid hard foam, reservoir + filter layer for roof gardens and planter boxes:

Hydrocell.

Hard foam flakes soil amendment

For turf, tree and garden beds establishment.

Ideal for all Landscaping,

Potting Mix amendment- e.g.hanging baskets

Lightweight planter boxes and patio pots.





Products & General Applications

Fytofoam

Broad-acre application

Fytozell

Specialist hard foam for Hydroponics

Fytowall.

Vertical Growing Panels for living

Vertical Gardens

Modular Turf.

Turf modules for Vertical growing



Water Saving throughout Horticulture

Water Saving Soil amendment

50% reduction in water use

Faster establishment

Hydroponic growing media

improved growth rates & yields

Lightweight roof gardens

Intensive & Extensive types

Thinner profiles

Now in a modular system

Potting Mix amendments

Water, weight savings while improving growth rates



Fytogreen
AUSTRALIA

hydrocell
Roof Gardens:

Light weight
Reduces engineering costs
Enables roof gardens to be built where previously they could not.
Huge Water Holding Capacity
Less watering events
Holds enough water for up to 1 months watering yet saturated weight is lighter than traditional podium soil's dry weight.



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hydrocell
Roof Gardens:

Water efficient
Saves maintenance costs
50% less water used compared to traditional podium soils
Increase root growing volume
Enables thinner profiles
Allows plants to flourish



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hydrocell

Roof Gardens:

Low Organics to prevent slumping.

No need to top up soil levels.

Open free draining.

No staining of paving.

Stable Long life expected.

Examples show 20 years + life span.



Fytogreen
AUSTRALIA

hydrocell

Roof Gardens Types:

Extensive:

Shallow profiles 100mm, no maintenance, sedums, succulents & grasses. Non accessible areas.

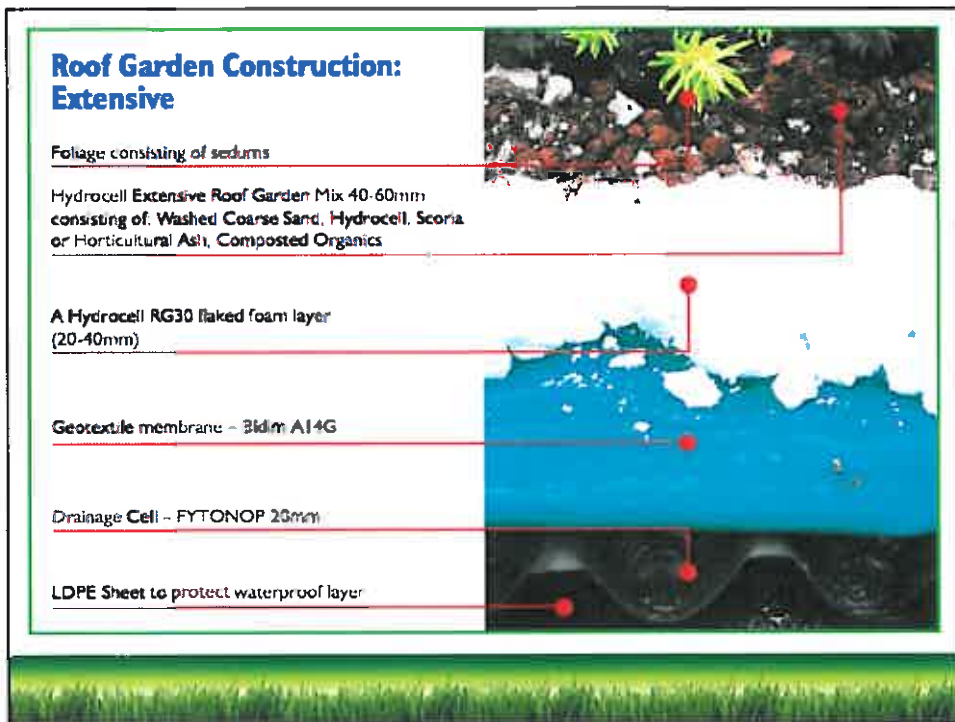
Semi Extensive.

Thin profile 100-200mm, little to no maintenance, turf, grasses and ground covers. Limited access.

Intensive.

Deep 200-1200mm, normal garden maintenance, full plant selection, recreational spaces.







Extensive Procedure:

Built on site by Fytogreen or overseen by Fytogreen.

- 1.) Understand Growing environment- aspect, pitch, edge, shading, available water
- 2.) Select low maintenance species - grasses, sedums & succulents
- 3.) Assemble plants- plugs 50/m² or tubes 25/m².
- 4.) Assemble layers on certified tanked roof with drip irrigation laid within Hydrocell RG30 layer.



Extensive Profile:

Built on site by Fytogreen or overseen by Fytogreen.

- Depth - 100mm from waterproofed layer to top.
Includes 1.6lt/hr drip irrigation.
Full Saturated weight / Static Load bearing - profile no plants
61kg ps/m. Add 15kg for plants.
Water Holding at Field Capacity
34.5lt ps/m.





RGM- Roof Garden Modules-Pre Grown:

Developed for instant visual effect and easy installation. Designed to survive Australian conditions.

Range of prostrate plants
Sedums & Succulents

Grasses & drought tolerant plants

Up to 25degree pitch.

Irrigated, pre grown up to 12 weeks.

81kg/m2 full saturated weight.



FreshWater Place Intensive Roof Garden - Case Study:

Built in 2004 by Multiplex for Australand
Landscape Architect: Laurence Blyton
10th Level, 1600m2, 400mm minimum profile.

Foaming equipment craned in.

Area prepared for foaming
base layer.

Applying Hydrocell RG-30
100mm deep

Hydrocell-40 Lightweight soil
ready for spreading over
Hydrocell-RG30.





FreshWater Place Intensive Roof Garden - Finished:

Extended to 2000m² in 2006
Tree mounds with stone mulch
Tall fescue turf, Deciduous trees, many ground covers

Level 10 at eye level

Tree mound 2 years on.

400m² added in 2006.

Nov 2006 making use of the space.



Condor Tower Semi Extensive Roof Garden: Case Study:

Built 2005 by Bovis Lend Lease.
Landscape Architect: Tract's Melissa Dunlop
4th level, 750m², Tall fescue turf.

175mm profile depth

95mm Hydrocell-40 Podium Soil

60mm Hydrocell RG30

2mm Geofabric

20mm Drain Layer -Fytonop

Allows 100mm step down to pavers.





Private Shed Extensive Roof Garden: Case Study!

Private garden shed
100mm profile depth
40mm Hydrocell-40 Podium Soil
40mm Hydrocell RG30
2mm Geofabric
20mm Drain Layer -Fytonop
Sedums, no maintenance, no access



Fytoroof's R&D 2008

Fytoroofs 25 degree pitch plot.
Comparing species for water needs and growth rates and planting densities.
Sedums & Succulents
4 months- single density
15 degree pitch native study.
All this plot are Australian native species.





Planter Box & Patio Pots Profile

Hydrocell-40 Podium mix:

50% sand, 40% Hydrocell, 10% Composted Organics

Hydrocell RG30 100mm thick layer

Below planter box water supply (optional) + tubes filled with Hydrocell to wick up the water



Modular Turf - Case Study:

Queensland's DPI (Dept. of Primary Industries) for New Ideas Festival, Brisbane's Southbank, 2006.

Turf Modules growing in with 30 varieties tested

Underneath the 120mm thick Modular Turf Panel

Grass topped bollards & Grass Staircase





SUMMARY

Roof Garden Profile

- 1.) Solves engineering issues.
- 2.) Easy to maintain.
- 3.) Long Life 20 years+.
- 4.) Efficient water use.
- 5.) Enables plants to flourish.

Turf Modules

Ultra thin, ultra light weight.
Only for light traffic areas

www.fytogreen.com.au

www.roofgarden.com.au

www.fytowall.com.au

www.livinglogo.com.au

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Why?

Triple Bottom Line Advantages

- Many Economic benefits
- Many Environmental benefits
- Many Community benefits

Marketing tool for Urban Developers to sell to tenants. Hire-out space.

Heat sinking, ecosystem creating, reducing storm water run off.

Creating communal spaces, vistas for neighbours, contemplative quiet zones, bring nature in to urban life.

Why not?



