

TECHNICAL SPECIFICATION FOR HYDROCELL RG30 ROOF GARDENS

HYDROCELL HARDFOAM RG30 WATER RESERVOIR LAYER

Product:	Melamine hardfoam: dry material content 30kg/m ³
Water absorption:	80% volume H ₂ O – 20% volume drains out
Pressure resistance:	1500 kg/m ² after 2 days. After curing and tested to ISO 844; final pressure resistance 23,000 kg/m ²
Product Life:	more than 150 years according TNO test report. Applied in roof garden with root activity; maximum 25 years without maintenance.
Shrinkage:	<12% during the first 30 days.

Hydrocell RG30 substrate layer at an average depth of 100mm

Weight of dry material (kg/m ³)	30 kg
Weight at manufacturing (kg/m ³)	115 kg
Water absorbing capacity max (vol.%)	80% of volume
Dry weight allowance: 10cm thick layer	4 kg/m ²
Wet weight allowance: filled with water	84 kg/m ²

Hydrocell RG30 substrate layer at an average depth of 60mm

Weight of dry material (kg/m ³)	30 kg
Weight at manufacturing (kg/m ³)	115 kg
Water absorbing capacity max (vol.%)	80% of volume
Dry weight allowance: 6cm thick layer	1.8 kg/m ²
Wet weight allowance: filled with water	50 kg/m ²

Hydrocell RG30 flakes for use with Bark blower units.

When using RG30 flakes as a filter and water reservoir layer for planter boxes and podium gardens where the material is blown into the site as a replacement for filter sand, it is important to increase the depth of the flake layer by 40% over solid foam to allow for particle integration.

A pre-fabricated 60mm sheet would equate to 80mm layer of RG30 flakes.

A pre-fabricated 100mm sheet would equate to a 140mm layer of RG30 flakes.

NB: when using this method, water must be applied and soil applied in the same day to prevent wind loss.

Root Anchorage Net

Product:	high density polyethylene, with net holes of 5 x 5 mm
Rupture resistance:	1400 N/20cm ²
Elongation:	25%
Water passage	100% / second.m ²
DIN 54307a:	1.5

Fytonop 20 Drainage Cell

Product:	High density polyethylene "egg cup type" drainage cell
Colour:	Black
HDPE Material Thickness:	Approx 1.0 mm
Single Sheet Dimensions:	2.5 x 1.2 m (3 m ²)
Dry Weight:	1kg/m ²
Sheet Depth:	20mm
Number of "nops":	Approx 400/m ²
Compressive Strength:	150 KN/m ² (15,000 kg/m ²)
Temperature Resistance:	-40°C to + 80°C
Use:	To move excess water quickly out of the system to drainage outlets.

Hydrocell 40 Lightweight Soil

Product: 50% sand	50% by volume washed sand with 10% by volume composted organic matter and 40% by volume Hydrocell flakes. Saturated weight 1200kg/m ³
Product: 30% sand	30% by volume washed sand with 30% by volume composted organic matter and 40% by volume Hydrocell flakes. Saturated weight 950kg/m ³

Blowable mix

Product: 40% sand	40% by volume coarse washed sand 40% by volume Hydrocell flakes 10% horticultural fly ash (NB: if not available, increase coarse washed sand) 10% by volume composted <10mm organics Saturated weight 1000kg/m ³
Product: 30% sand	30% by volume coarse washed sand 40% by volume Hydrocell flakes 30% by volume composted <10mm organics Saturated weight 900kg/m ³