

## PRODUCT TECHNICAL DATA SHEET

# AquaCell Geo-Cellular 30T

AQUACELL GEO-CELLULAR · 30 TONNE

**95-96%**  
 VOID RATIO

**300 kN/m<sup>2</sup>**  
 VERTICAL LOAD

**1000 × 500 × 500**  
**mm**  
 CELL SIZE

**Infl · Atten**  
 FUNCTIONS

NGS AquaCell Geo-Cellular is a high-capacity modular geo-cellular tank engineered for sub-surface stormwater storage by infiltration (soakaway) or attenuation. Interlocking 500 mm cells form a strong, flexible tank beneath trafficked and landscaped surfaces, replacing traditional aggregate with a 95%+ void ratio for maximum storage in minimum excavation.

## TECHNICAL DATA

SHORT-TERM COMPRESSIVE STRENGTH		
Vertical	kN/m <sup>2</sup>	<b>300</b>
Lateral (@ 23 °C)	kN/m <sup>2</sup>	<b>49.5</b>
SHORT-TERM DEFLECTION		
Vertical	kN/m <sup>2</sup> per mm	<b>86</b>
Lateral	kN/m <sup>2</sup> per mm	<b>20.4</b>
PHYSICAL & MATERIAL		
Dimensions (L × W × H)	mm	<b>1000 × 500 × 500</b>
Gross volume	m <sup>3</sup>	<b>0.25</b>
Effective storage	m <sup>3</sup>	<b>0.238</b>
Volumetric void ratio		<b>95-96%</b>
Unit weight		<b>11.3 kg</b>
Material		<b>Polypropylene (PP)</b>
Intrinsic permeability (k)		<b>≥ 1.0 × 10<sup>-5</sup> m/s</b>
Service temperature		<b>-30 °C to +120 °C</b>
Minimum cover		<b>0.5 m</b>
Maximum burial depth		<b>Non-trafficked 2.5 m</b>

## KEY BENEFITS

- ▶ High-capacity modular storage — aggregate sub-base replacement
- ▶ Soakaway (infiltration) and / or attenuation
- ▶ 95-96% void ratio for maximum storage in minimum excavation
- ▶ Load classes 30 / 45 / 60 tonne — non- to heavy-trafficked
- ▶ CIRIA C737 · 50-year design life · 100% recyclable

## APPLICATIONS

Car parks, highways and infrastructure, large attenuation tanks, deep soakaways, residential and commercial developments.

## STANDARDS & TESTING

Structural load-bearing capacity tested to BS 7533-13:2009; design-life expectancy based on creep-test data per CIRIA guidelines.

CIRIA C737

ISO 9001

ISO 14001

ISO 45001

Intertek / SGS tested

## PERFORMANCE & INSTALLATION

50 years (lightly loaded areas); typically 25 years under prolonged HGV loading, depending on pavement design. All calculations are based on site-specific load cases, pavement construction, soil cover and ground conditions; suitability must be approved for each project.

Frost-, hydrophobe-, acid- and hydrocarbon-resistant; inert; impervious to bacterial and fungal growth. 100% recyclable.