Technical Data Sheet

Wavin AquaCell NG

Product description

Wavin AquaCell NG is an advanced modular stormwater management system designed for efficient retention, attenuation, and infiltration. Engineered for sustainability and durability, it is made from 100% recycled and recyclable material and features a high-strength, interlocking design for easy installation. Its modular structure allows for flexible configurations, making it ideal for urban, commercial, and residential applications across various loads and depths. Further enhancing its eco-friendly credentials, its stackable design reduces transport and handling costs while optimizing on-site storage, making it a cost-effective and sustainable choice for stormwater management.

Key benefits

- 100% recycled and recyclable materials
- Independently tested and certified
- Open channels for inspection and maintenance
- Stackable for reduced transport, material handling and reduced site storage footprint
- 50 years minimum life expectancy
- Double stacking for deep / high load applications

Components

	Cat Code	Description	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Units per pallet
	3092874	AquaCell NG Unit	1200	600	400	11.4	28 ($8m^3$)
	3092875	AquaCell NG Base Plate	1200	600	35	3.6	56
	3092876	AquaCell NG Side Panel	1155	60	404	2.3	48
	3084337	AquaCell NG Pipe Connector	463	353	348	1.2	n/a
	3085857	AquaCell NG Shaft Connector	268	592	592	5.0	n/a

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Wavin AquaCell NG

Technical specification							
Configuration	**Length x width**	**Height**	**Volume**	**Void Ratio**	**Vertical loading**	**Lateral loading**	**Short-Term Vertical Elastic Deflection**
Standard	1200 x 600mm	425mm	0.306 m^3 (3)	94.6% (5)(6)	438 kN/m^2	111 kN/m^2	1mm per 37.7 kN/m^2
High Strength	1200 x 600mm	460mm	0.331 m^3 (4)	92.5% (5)(6)	621 kN/m^2	176 kN/m^2	1mm per 40.6 kN/m^2

Certifications	**BBA**	**Benor**	**KIWA**	**NSAI**
Cert No.	03/4018	BB-653-352-17152-4644-46966	K107798/06	Pending

Maximum installation depths (standard configuration only)					
Typical soil type	**Soil weight kN/m^3**	**Angle of internal friction φ (degrees) (8)(9)**	**Landscaped**	**Vehicle mass <9 tonnes (10) (11)**	**Vehicle mass >12 & <60 tonnes**
Over consolidated stiff clay	20	24	3.74	3.46	3.18
Silty Sandy Clay	19	26	4.23	3.93	3.64
Loose Sand and Gravel	18	30	5.18	4.87	4.56
Medium Dense Sand and Gravel	19	34	5.76	5.47	5.18
Dense Sand and Gravel	20	38	6.48	6.20	5.92

Minimum cover depths					
Minimum cover depth (m)	**Landscaped areas**	**Car parks with vehicle mass <3 tonnes (11)**	**Car parks with vehicle mass <9 tonnes**	**Car parks with vehicle mass <12 tonnes**	**Low speed roads with vehicle mass <60 tonnes**
	0.3	0.5	0.72	0.85	1.34 1.46 (44 tonne HGVs)

Notes

(1) Single layer, 400mm unit depth plus 25mm from base plate – subsequent layers increase tank height by 400mm per layer.

(2) Single layer in high strength configuration 400mm unit depth plus 60mm additional depth from second unit deck – subsequent layers increase tank height by 400mm in standard configuration and 460mm in high strength configuration.

(3) subsequent layers increase tanks volume by 0.288m^3 per layer per unit footprint (1200mm x 600mm).

(4) subsequent layers increase tanks volume by 0.288m^3 per layer per unit footprint (1200mm x 600mm) in standard configuration and 0.331m^3 per unit footprint in high strength.

(5) Minimum void ratio – void ratio increases as tank layers increase.

(6) Tank porosity can vary slightly dependent on tank layout including footprint and height.

(7) Without groundwater present below base of units – AquaCell Core-R may be used where groundwater is present, contact Wavin for technical advice.

(8) Loosening of dense sand or softening of clay by water can occur during installation. The designer should allow for any such likely effects when choosing an appropriate value of φ.

(9) The design is very sensitive to small changes in the assumed value of φ, therefore, it should be confirmed by a chartered geotechnical engineer. In clay soils, it may be possible to utilise cohesion in some cases.

(10) Applicable for car parks or other areas trafficked only by cars or occasional refuse collection trucks or similar vehicles (typically one per week).

(11) This category should be used when considering landscaped areas that may be trafficked by ride on mowers.
Assumptions made:
- Ground surface is horizontal
- Shear planes or other weaknesses are not present within the structure of the soil

Standard Configuration

Extra Strong Configuration

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