



## Civil Engineering Materials MACKA'S BIORETENTION SAND



Macka's Bioretention Sand has been tested for Particle Size and Hydraulic Conductivity. The results are below. Macka's Bioretention Sand is a suitable sand component to any retention basin and can have up to 30% green waste added to create the whole profile necessary for filtering and managing water flow on sensitive sites. Product can be mixed at Macka's site upon request.

Sieve Size (mm)	Description	% Retained	Target Range*
>3.35	Gravel	0	-
2.0 - 3.35	Fine Gravel	0.1	< 3.0%
1.0 - 2.0	Very Coarse Sand	0.3	7 - 10%
0.25 - 0.5	Medium to Coarse Sand	70.7	40 - 60%
0.15 - 0.25	Fine Sand	19.5	10 - 30%
0.05 - 0.15	Fine to Very Fine Sand	3.9	5 - 30 %
<0.05	Clay + Silt	5.4	< 3.0%
<b>Physical Performance</b>		<b>Unit</b>	<b>Result</b>
<b>Hydraulic Conductivity</b>			
Predicted based on PSA	mm/hr	648.0	
Actual to ASTM F 1815-06	mm/hr	309.0	> 100 mm/hr
<b>Soil Properties**</b>			
Organic Matter	% dry weight	0.5	>3.0%
pH in H <sub>2</sub> O (1:5)	pH unit	6.3	5.5 - 7.5
Electrical Conductivity (1:5)	dS/m	0.02	< 1.2 dS/m
Orthophosphate (Olsen)	mg/kg	12.9	< 80 mg/kg
Total Nitrogen	mg/kg	200.0	< 1000 mg/kg

*NB: The information provided in this product guide should be used as a guide only. For further details or for design and application support, please contact us.*

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