

## Carlisle Pacific/LAC Extensive Growth Media Analysis

Results on a dry weight basis unless specified otherwise

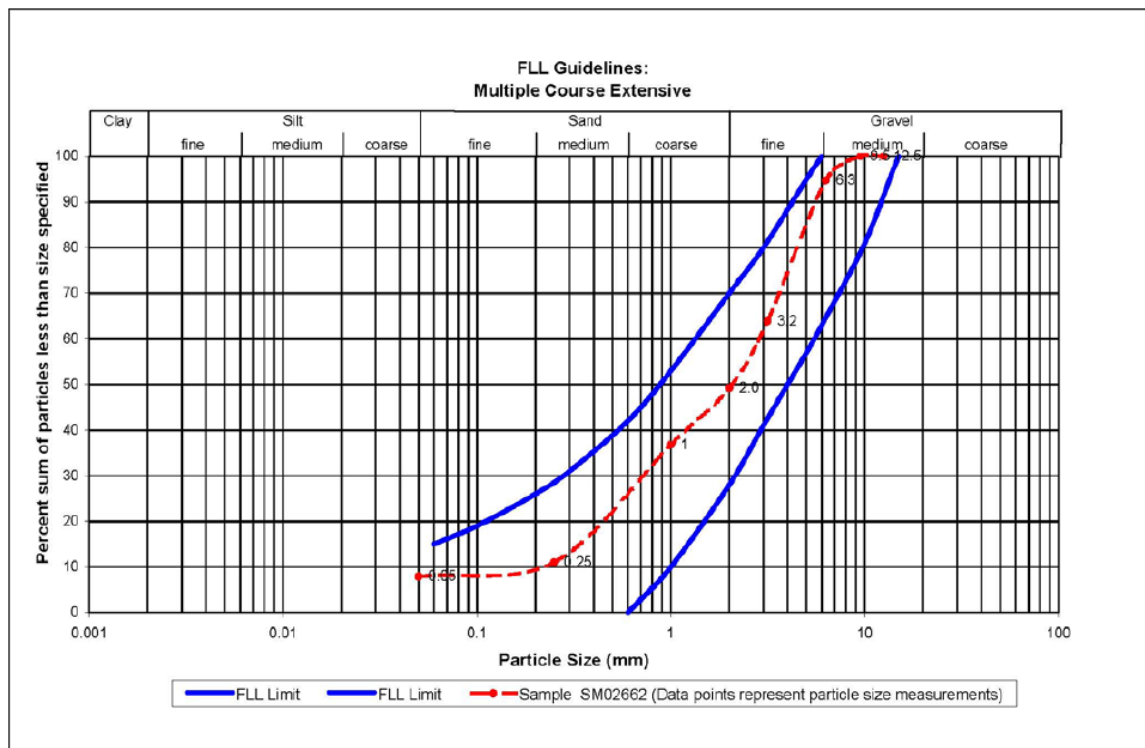
Analysis	Units	Result	FLL Reference Values
<b>Particle Size Distribution</b> (See accompanying report)			
< 0.05 mm (FLL <sup>1</sup> reference value based on < 0.06 mm)	mass %	7.9	< 15
<b>Density Measurements</b>			
Bulk Density (dry weight basis)	g/cm <sup>3</sup>	0.54	
Bulk Density (dry weight basis)	lb/ft <sup>3</sup>	34.02	
Bulk Density (at max. water-holding capacity)	g/cm <sup>3</sup>	1.11	
Bulk Density (at max. water-holding capacity)	lb/ft <sup>3</sup>	69.32	
<b>Water/Air Measurements</b>			
Moisture (as received basis)	mass %	32.2	
Total Pore Volume	Vol. %	73.4	
Maximum water-holding Capacity	Vol. %	57.4	> 35
Air-Filled Porosity (at max water-holding capacity)	Vol. %	16.0	> 10
Water permeability (saturated hydraulic conductivity)	cm/s	0.063	> 0.001
Water permeability (saturated hydraulic conductivity)	in/min	1.485	> 0.0236
<b>pH and Salt Content</b>			
pH (CaCl <sub>2</sub> )		6.7	6.5 - 8.0
Soluble salts (water, 1:10, m:v)	mmhos/cm	0.23	
Soluble salts (water, 1:10, m:v)	g (KCl)/L	0.96	< 3.5
<b>Organic Measurements</b>			
Organic matter content	mass %	7.2	< 8.0
<b>Nutrients</b>			
Phosphorus, P <sub>205</sub> (CAL)	mg/L	165.5	< 200
Potassium, K <sub>2</sub> O (CAL)	mg/L	532.1	< 700
Magnesium, Mg (CaCl <sub>2</sub> )	mg/L	79.8	< 160
Nitrate + Ammonium (CaCl <sub>2</sub> )	mg/L	7.4	< 80

<sup>1</sup> <sup>1</sup>Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau (FLL).  
Guidelines for the Planning, Execution and Upkeep of Green-Roof Sites

## Green Roof Media Particle Size Distribution

Particle Size Analysis		Sum of particles less than size specified			
Diameter -mm-	%	Diameter -mm-	Diameter -in-	Sieve size	% sum of particles
< 0.002	2.5	< 0.002	---	---	2.5
0.002-0.05	5.4	< 0.05	---	---	7.9
0.05-0.25	3.1	< 0.25	0.0098	60 mesh	11.0
0.25-1.0	25.8	< 1.0	0.0394	18 mesh	36.8
1.0-2.0	12.4	< 2.0	0.0787	10 mesh	49.2
2.0-3.2	14.7	< 3.2	0.125	1/8 inch	63.9
3.2-6.3	30.9	< 6.3	0.250	1/4 inch	94.8
6.3-9.5	5.2	< 9.5	0.375	3/8 inch	100.0
9.5-12.5	0.0	< 12.5	0.500	1/2 inch	100.0
> 12.5	0.0				

## FLL<sup>2</sup> Particle Size Distribution Graph for Extensive Systems



<sup>2</sup> Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau (FLL). 2007.  
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