The Hills Green Roof Mix*

The Hills Green Roof Mix has been developed to provide a stable substrate that can sustain plant life while maintaining volume over time. The Hills Bark Blower® has installed large trial plots and monitored them over a 6 year period to ensure the green roof media used is the best available. It is also tested independently. Not only that, but The Hills Bark Blower® Green Roof mix has been given a certificate of compliance with the requirements in the soil publication by Leake and Haege, no easy feat. Available upon request.

Tested for:
As there is no appropriate Australian Standard for Green roof media yet, The Hills Green Roof Mix is tested to the Australian Standard 3743 Potting Mix non specialist (Regular Grade). We also test the Bulk Density to the Australian Standard 4419: 2003 Soils for Landscaping and Garden Use – Organic Soil Analysis. It is also tested with the 6 Point Hydraulic Conductivity Test. We use the standards as a tool only. The mix is also tested against Specification E3 Low Density Container and Green Roof from the text Soil for Landscape Development by Leake and Haege. The Hills Bark Blower® staff add important nitrogen sources, plenty of calcium, micro and macro nutrients and pH adjusters if needed.

TEST RESULTS:

October 2021

Physical Properties	Unit	Target Range	Results	Comments
Texture	-	Gravelly loamy sand to organic sandy loam	Loamy Sand	Acceptable
Air-filled Porosity	%	≥ 10	11	Acceptable
Water Holding Capacity	%	≥ 40	55.6	Acceptable
Saturated Density	kg/L	<2.4	1.21	Acceptable
Large Particles: < 2 mm	% ww	30 - 70	-	-
Large Particles: 2 - 10 mm	% ww	10 - 20	40.8	High
Large Particles: 10 - 20 mm	% ww	5 - 10	10.9	Acceptable
Large Particles: 20 - 50 mm	% ww	< 5	1.31	Acceptable
Large Particles: > 50 mm	% ww	0	0	Acceptable
Organic matter content	% w/w	< 15	40	High (due to ash content)
Permeability	mm/h	> 100	1700	Acceptable-Rapid
Wettability (AS4419)	mins	≤ 5	.51	Acceptable
Dispersibility in water	Category	1 or 2 (AS 4419) category	4	High
Chemical Properties	**Unit**	**Target Range**	**Results**	**Comments**
pH in water (1:5)	pH units	5.4 - 6.8	7.15	Slightly High
Electrical conductivity (1:5)	dS/m	< 2.2	2.17	Acceptable
Chloride	mg/L	< 200	14	Acceptable
Ammonium-N (NH_4)	mg/L	< 100	128.1	High
Ammonium-N + Nitrate-N (NH_4+NO_3)	mg/L	> 50	11.1	Acceptable
Nitrogen draw-down index	-	> 0.7	0.77	Acceptable
Bioassay	mm	> 70	86	Acceptable
Phosphorus	mg/L	< 3 / 8 - 40	3.1	Acceptable for Exotics
Potassium	mg/L	50 - 250	173	Acceptable
Sulphate	mg/L	> 40	270	Acceptable
Calcium	mg/L	> 80	133	Acceptable
Magnesium	mg/L	> 15	36.7	Acceptable
Ca:Mg Ratio	Ratio	1.5 - 10	3.6	Acceptable
K:Mg Ratio	Ratio	1 - 7	4.7	Acceptable
Sodium	mg/L	< 130	73	Acceptable
Iron	mg/L	>35	29.5	Acceptable
Copper	mg/L	0.4 - 15	.944	Acceptable
Zinc	mg/L	0.3 - 10	3.7	Acceptable
Manganese	mg/L	1 - 15	7.79	Acceptable
Boron	mg/L	0.02 - 0.065	0.362	Acceptable

All laboratory testing is conducted by a National Association of Testing Authorities (NATA) certified laboratory - this certification is available on request.
Bulk Density = 0.55kg/L. Saturated Bulk Density = 1.21kg/L

*The Hills Bark Blower® staff add micro Nutrients and Ameliorants to provide those nutrients that test as mildly low. The Hills Bark Blower® mixes can have additions such as wetting agent and other fertilisers upon request. All actions recommended by the independent laboratory are carried out before installation.