

# The Hills B Horizon Mix

The Hills B Horizon Mix performs well as a lower profile substrate in contained environments, below the Lightweight Planter Box Mix. It has been developed to work as the stable drainage media layer of an engineered profile. It provides enough nutrition for continued root growth while creating a stable substrate for long term volume.

The Hills B Horizon Mix is tested to the Australian Standard 4419: 2018 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 and request extra Bulk density and environmental compliant testing.



## TEST RESULTS:

JUNE 2020

Physical Properties	Unit	Target Range	Results	Comments
Texture	-	Loamy sand - sandy loam	Loamy Sand	Acceptable
Air-filled Porosity	%	≥ 10	16	Acceptable
Water Holding Capacity	%	≥ 40	45.6	Acceptable
Permeability (@ 16 drops)	mm/hr	> 100	697	Acceptable - rapid
Organic Matter	% w/w	< 5	22	High - due to ash content
Wettability (AS4419)	min	≤ 5	1.73	Acceptable
Dispersibility	Category	1 or 2	2	Acceptable
Large Particles				
< 2 mm	% w/w	30 - 70	44.1	Acceptable
2 - 10 mm	% w/w	10 - 20	35.4	High
10 - 20 mm	% w/w	5 - 10	17.7	High
20 - 50 mm	% w/w	< 5	2.83	Acceptable
> 50 mm	% w/w	0	0	Acceptable
Saturated Density	kg/L	< 2.4	1.2	Acceptable
Chemical Properties	Unit	Target Range	Results	Comments
pH in water (1:1:5)	pH Units	5.4 - 6.8	6.82	Acceptable
Electrical Conductivity	dS/m	<2.2	2.34	High
Chloride	mg/L	≤ 200	428	High
Ammonium-N (NH4)	mg/L	≤ 100	32.8	Acceptable
Ammonium-N + Nitrate-N (NH4 + NO3)	mg/L	≥ 50	71.9	Acceptable
Nitrogen Draw-Down Index	-	≥ 0.7	0.59	Low
Bioassay	mg/L	≥ 70	75	Acceptable
Phosphorus	mg/L	8 - 40	5.9	Low
Low Phosphorus - P-Sensitive plant	mg/L	< 3	5.9	High
Potassium	mg/L	50 - 250	220	Acceptable
Sulphate (SO4)	mg/L	> 40	120	Acceptable
Calcium (Ca)	mg/L	≥ 80	127	Acceptable
Magnesium (Mg)	mg/L	≥ 15	48.1	Acceptable
Ca : Mg Ratio	Ratio	1.5 - 10	2.6	Acceptable
K : Mg Ratio	Ratio	1 - 7	4.6	Acceptable
Sodium (Na)	mg/L	≤ 130	186	High
Iron (Fe)	mg/L	≥ 35	45.3	Acceptable
Copper (Cu)	mg/L	0.4 - 15	0.657	Acceptable
Zinc (Zn)	mg/L	0.3 - 10	3.9	Acceptable
Manganese (Mn)	mg/L	1 - 15	10.3	Acceptable
Boron (B)	mg/L	0.02 - 0.65	0.326	Acceptable

**Hydraulic Conductivity – 32 drops (heavy compaction) – 948mm/hr**  
**Saturated bulk density = 1.2kg/L. Dry bulk density = 0.58kg/L.**



Laboratory recommendations are implemented when the B Horizon is the predominant growing media in the podium and where corrections need to be made. The Hills Bark Blower® staff add important nitrogen sources, plenty of calcium, micro and macro nutrients and pH adjusters if needed.