

# 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 3743 Potting Mix non specialist (Regular Grade). We 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. As the B Horizon Mix is a lower profile substrate, it doesn't fit into any one Australian Standard's requirements. We use the standards as a tool only.



## TEST RESULTS:

DECEMBER 2019

Physical Properties	Unit	Target Range	Results	Comments
Texture	-	Loamy sand - sandy loam	Loamy Sand	Acceptable
Air-filled Porosity	%	≥ 10	9.6	Acceptable
Water Holding Capacity	%	≥ 40	48.8	Acceptable
Permeability (@ 16 drops)	mm/hr	> 100	604	Acceptable
Organic Matter	% w/w	< 5	19	High (due to ash content)
Wettability (AS4419)	min	≤ 5	0.71	Acceptable
Dispersibility	Category	1 or 2	3	High (gypsum to be added)
Large Particles				
< 2 mm	% w/w	30 - 70	44.7	Acceptable
2 - 10 mm	% w/w	10 - 20	40.9	High
10 - 20 mm	% w/w	5 - 10	13.2	High
20 - 50 mm	% w/w	< 5	1.12	Acceptable
> 50 mm	% w/w	0	0	Acceptable
Saturated Density	kg/L	< 2.4	1.21	Acceptable
Chemical Properties	Unit	Target Range	Results	Comments
pH in water (1:1:5)	pH Units	5.4 - 6.8	7.06	Slightly Elevated
Electrical Conductivity	dS/m	<2.2	1.05	Acceptable
Chloride	mg/L	≤ 200	195	Acceptable
Ammonium-N (NH4)	mg/L	≤ 100	19	Acceptable
Ammonium-N + Nitrate-N (NH4 + NO3)	mg/L	≥ 50	24.2	Low
Nitrogen Draw-Down Index	-	≥ 0.7	0.82	Acceptable
Bioassay	mg/L	≥ 70	92	Acceptable
Phosphorus	mg/L	8 - 40	4	Low
Low Phosphorus - P-Sensitive plant	mg/L	< 3	4	Acceptable
Potassium	mg/L	50 - 250	108	Acceptable
Sulphate (SO4)	mg/L	> 40	50	Acceptable
Calcium (Ca)	mg/L	≥ 80	71	Low
Magnesium (Mg)	mg/L	≥ 15	22.8	Acceptable
Ca : Mg Ratio	Ratio	1.5 - 10	3.1	Acceptable
K : Mg Ratio	Ratio	1 - 7	4.7	Acceptable
Sodium (Na)	mg/L	≤ 130	80	Acceptable
Iron (Fe)	mg/L	≥ 35	12.1	Unacceptable
Copper (Cu)	mg/L	0.4 - 15	0.3	Unacceptable
Zinc (Zn)	mg/L	0.3 - 10	1.2	Acceptable
Manganese (Mn)	mg/L	1 - 15	1.57	Acceptable
Boron (B)	mg/L	0.02 - 0.65	0.154	Acceptable

**Hydraulic Conductivity – 32 drops (heavy compaction) – 948mm/hr**  
**Saturated bulk density = 1.21kg/L. Dry bulk density = 0.63kg/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.