

The Hills Turf Underlay

The Hills Turf Underlay is a superior mix that creates a thriving lawn environment. It is specially developed for the use in both residential and amenity turf areas. The mix contains minerals and inorganic components, as well as a percentage of organic product for better structure and nutrition. The Hills Turf Underlay has high permeability which creates a free draining environment to decrease the chance of fungal growth.

The Hills Turf Underlay is tested to **Australian Standard 3743** Potting Mix non specialist (Regular Grade) to provide enough information about the available nutrients. It is also tested to **Specification C1** – Passive Amenity Turf from the text Soil for Landscape Development by **Leake and Haege**.



TEST RESULTS:

MARCH 2020

Physical Properties	Unit	Target Range	Results		Comments
2.0 mm (fine gravel)	% retained by mass	< 10	12.3		High
1.0 mm (very coarse sand)	% retained by mass	< 10	9.26		Acceptable
0.5 mm (coarse sand)	% retained by mass	10 - 30	10.17		Acceptable
0.25 mm (medium sand)	% retained by mass	20 - 40	47.88		High
0.1 mm (fine sand)	% retained by mass	10 - 30	11.26		Acceptable
0.05 mm (very fine sand)	% retained by mass	5 - 15 (max 25% combined of vfs, si +cl)	1.26	9.13	Acceptable
0.002 mm (silt)	% retained by mass	5 - 10 (max 12% combined of si +cl)	6.82	7.87	Acceptable
<0.002 mm (clay)	% retained by mass	3 - 8	1.05		Low
Large Particles	% by mass	2 - 20mm = < 10% > 20mm = 0%	12.3 <0.01		High Acceptable
Organic matter content	% w/w	2 to 8	15		High (carbon due to ash)
Permeability	mm/h	> 30 (@ 16 Drops)	2343		Acceptable
Wettability (AS4419)	mm/min	> 5	24		Acceptable
Dispersibility in water	Category	1 or 2 (AS4419)	2		Acceptable
Chemical Properties	Unit	Target Range	Results		Comments
pH in water (1:5)	pH units	5.4 - 8.0	6.16		Acceptable
pH in CaCl2 (1:5)	dS/m	5.2 - 7.5	5.67		Acceptable
Electrical conductivity (1:5)	mg/L	< 0.5	1.07		High
Exchangeable Na percentage	mg/L	< 7	23.3		High
Exchangeable Ca:Mg ratio	mg/L	3 - 9	2.3		Low
Available phosphorus	-	50 - 150 20 - 50	19.7	-	Low
Available nitrogen (NO ₃)	mm	20 - 60	0.77		Low



Bulk Density 0.75kg/L. Saturated Bulk Density 1.3kg/L

"We consider the material fit for purpose as a turf underlay in all but high grade sportsfield situations provided the turf is fertilised once established as is normal practice" **SESL Australia**.