Turf Underlay

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

The Turf Underlay is tested to Specification C1 – Passive Amenity Turf from the text Soil for Landscape Development by Leake and Haege. It is also tested for Bulk Density, Saturated Bulk Density & Environmental Compliance as special requests outside the general Australian Standard suite.

Test Results:

May 2025

Physical Properties		Units	Target Range	Results
Particle Distribution	2 mm (Fine Gravel)	% Retained by Mass	< 10	**23.9**
	1.0 mm (Very Coarse Sand)		< 10	5.55
	0.5 mm (Coarse Sand)		10 - 30	17.6
	0.25 mm (Medium Sand)		20 - 40	32.9
	0.1 mm (Fine Sand)		10 – 30	**6.0**
	0.05 mm (Very Fine Sand)		5 – 15 (max 25% combined vfs, Si + Cl)	7.69
	0.002 mm (Silt)		< 12 (Si + Clay combined) 8–15	3.01
	< 0.002mm (Clay)		3 – 8	3.36
Large particles (naturally occurring)	2 – 20mm	% w/w by mass	<10	11.8
	>20 mm	% w/w by mass	0	0
Organic matter content		% w/w	2 to 8	14.8
Permeability (16 drops McIntyre Jakobsen)		mm/hr	>30	2579
Water Repellence*		S	≤ 60	30
Chemical Properties		**Unit**	**Target Range**	**Results**
pH in water (1:5)		pH units	5.4 – 8.0	6.82
Electrical Conductivity (1:5)		dS/m	< 0.5	0.68
Exchangeable Na percentage		% of ECEC	≤ 15	4
Exchangeable Ca:Mg ratio		Ratio	3-9	**2.7**
Available phosphorus 18E1		mg/kg	50 - 150	72
Available nitrogen (N as nitrate)		Mg/kg	20 - 60	1.12
Additional Testing		**Units**	**Target Range**	**Results**
Saturated Density		kg/L	No Requirement	1.35
Dry Bulk Density		Kg/L	No Requirement	0.66
Asbestos ** Polarized Light Microscope and dispersion staining method.			No Requirement	Not Detected

* Water repellence (AS4419 2018) supersedes wettability (AS4419 2003).
** Subcontracted - Polarized Light Microscope and dispersion staining method. SGS Laboratories SE269278.

Scapeworks Turf Underlay - The media comprises a loamy sand and will provide moderate resistance to compaction in public and other amenity turf areas subject to moderate levels of pedestrian traffic.
The Urban Soil Doctor (TUSD) was requested by Scapeworks Australia to conduct in-situ sample collection at Scapeworks Australia's yard, and oversees the analyses and reports on products collected.
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