

SECTION 02243

GEOTEXTILE

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

This specification covers the furnishing and installing of geotextile fabric.

1.2 SUBMITTALS

The Bidder shall furnish six (6) sets of manufacturer brochures, specifications and certificates prior to delivery to the project site.

1.3 WARRANTY

The Bidder shall provide the State of Hawaii with an one (1) year warranty against manufacturing defects, in accordance with this specification.

1.4 TEST REQUIREMENTS

The geotextile fabrics shall comply with all applicable American Society of Testing Materials (ASTM).

PART 2 - PRODUCTS

2.1 MATERIALS

- A. The fabric shall be inert to biological degradation.
- B. Acceptable geotextile fabrics are:
 - 1. For utility lines and wastewater infiltration systems: non-woven polypropylene geotextile fabric (Mirafi 170N or approved equal);
 - 2. For roadways, parking lot areas, driveways, and walkways: woven geotextile fabric (Mirafi HP570 or approved equal).
- C. The geotextile fabric shall be 12.0 to 12.5 feet wide.

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2.2 PHYSICAL PROPERTY REQUIREMENTS

Geotextile fabrics shall meet or exceed the following property criteria:

Fabric Property	Test Method	Unit	Woven Fabric	Non-Woven Fabric
Grab Tensile Strength	ASTM D4632	lbs	500	180
Grab Tensile Strength Elongation, MD / CD	ASTM D4632	%	11 / 4	50
Trapezoid Tear Strength	ASTM D4533	lbs	180	75
CBR Puncture Strength	ASTM D6241	lbs	2000	450
Apparent Opening Size (U.S. Standard Sieve)	ASTM D4751	U.S. Standard Sieve	30	70
Permittivity	ASTM D4491	sec ⁻¹	0.5	1.4
Flow Rate	ASTM D4491	gal/min/ft ²	35	105
UV Resistance (@ 500 hours)	ASTM D4355	% strength retained	80	70

PART 3 - EXECUTION

3.1 DELIVERY

The geotextile fabric shall be delivered in a protective wrapping which shall protect the fabric from ultraviolet radiation and from abrasion during shipping and handling.

Any damaged geotextile fabric that does not meet the required physical property requirements in this specification shall be immediately replaced by the Contractor.

3.2 INSTALLATION

The geotextile fabric shall be installed in accordance with the manufacturer's specifications.

END OF SECTION

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