STANDARD CRITERIA

| TYPE | APPLICATION I DESCRIPTION | INDEX NO. | PERMITTIVITY SEC [™] | AOS SIEVE# | MIN. GRAB TENSILE STRENGTH Ib. | MIN. SEWN STRENGTH Ib./in. | MIN. PUNCTURE Ib. | MIN. TRAPEZOIDAL TEAR Ib. | WIDE WIDTH | UV RESISTANCE (Min. Allowed) | | COMMENTS |
|------|--|---|--|---|--|--|--|--|--|---|---|--|
| | | | | | | | | | | % | (Hrs.) | |
| D-1 | Revetment (Special) | | (See D-2) | (See D-2) | 315 | 7.2 | 113 | 113 | | 50 | 500 | Woven Monofilament Geotextiles only (Elongation <50%) Provide 12" thick bedding stone layer. |
| | Revetment (Standard) | | - % SOIL PASSING No. 200 SIEVE - <15% 0.7 15% to 50% 0.2 - >50% 0.1 | % SOIL PASSING No. 200 SIEVE <15% 40 15% to 50% 60 >50% 70* | Woven Monofilament 248 Other Geotextiles: Elongation <50% 315 ≥50% 203 | Woven Monofilament 5.7 Other Geotextiles: Elongation <50% 6.9 ≥50% 4.7 | Woven | Woven | 50 | | | Woven Geotextiles only. No Slit Film Geotextiles allowed. Provide 12" thick bedding stone layer for revetment (standard). The bedding layer may be omitted if a D-1 fabric is used with revetment (standard). ****Bedding Stone not required for Articulating Block. *For cohesive soils with a plasticity index >7, maximum average role value for AOS is number 50 sieve. |
| D-2 | Articulating Block**** | | | | | | 90 | 57 | | 50 | | |
| | Gabions | 281 | | | | | Elongation <50% 113 | Elongation <50% 113 | | | | |
| | Rock, Rubble, Broken Concrete | | | | | | ≥50% 79 | ≥50% 79 | | | | |
| | Underdrain *** | 286 | % SOIL PASSING No. 200 SIEVE <15% 0.5 15% to 50% 0.2 >50% 0.1 | % SOIL PASSING No. 200 SIEVE <15% 40 15% to 50% 60 >50% 70* | Elongation | Elongation | Elongation | Elongation | 50 | 50 | 500 | No woven slit film fabrics allowed. |
| | French Drain | 285 | | | | | | | | | | *For cohesive soils with a plasticity index >7, maximum |
| D-3 | Sheet Piling Filter | | | | <50% 248 ≥50% 158 | <50% 5.7 ≥50% 3.6 | <50% 90 ≥50% 57 | <50% 90** ≥50% 57 | | | | average role value for AOS is number 50 sieve. **Required Trapezoidal tear for woven monofilament is 250. |
| | Filter Fabric Jacket (Culvert) | 280 | | | | | | | | | | ***See Index No. 286 for the permittivity and AOS values |
| | Concrete Pavement Subdrainage | 287 | | | | | | | | | of the internal filter fabric of Type V Underdrain. | |
| | 7 | | 0.5 | 40 | 180 | 4.2 | 50 | 35 | 50 | | 500 | Non-woven, needle-punch only. |
| D-4 | Ditch Pavement (Sand-Cement) | 281 | | | | | | | | 500 | Elongation ≥50% | |
| | Mechanical Stabilized Retaining Wall | | 0.5 | 40 | 90 | 2.1 | 50 | 40 | | 50 | 500 | |
| D-5 | Cast-In-Place Retaining Wall | | | | | | | | | | | |
| 5.6 | Slope Pavement (Concrete) | | 0.5 | 40 | 180 | 4.2 | 50 | 35 | 50 | | 500 | Non-woven, needle-punch only. |
| D-6 | Ditch Pavement (Concrete) | 281 | | | | | | | | 50 | 500 | Elongation ≥50% |
| E-1 | Staked Silt Fence | 102 | 0.05 | NA | 90 | 2.1 | NA | 35 | | 80 | 500 | Min. Filtration Efficiency of 75% & min. flow rate of 0.3 gal. |
| E-2 | Wind Screen | | 0.05 | NA | 90 | 2.1 | NA | NA | | 80 | 150 | |
| E-3 | Plastic Erosion Mat (Turf Reinforcement Mat)(Type 1) | NA | NA | NA | NA | NA | NA | NA | 12 x 6 | 80 | 500 | Use where design shear stress is ≤2.1 psf |
| E-4 | Plastic Erosion Mat (Turf Reinforcement Mat)(Type 2) | NA | NA | NA | NA | NA | NA | NA | 23 x 12 | 80 | 500 | Use where design shear stress is ≤3.6 psf |
| E-5 | Plastic Erosion Mat (Turf Reinforcement Mat) (Type 3) | NA | NA | NA | NA | NA | NA | NA | 46 x 23 | 80 | 500 | Use where design shear stress is ≤5.0 psf |
| | D-1 D-2 D-3 D-4 D-5 D-6 E-1 E-2 E-3 E-4 | D-1 Revetment (Special) Revetment (Standard) Articulating Block**** Gabions Rock, Rubble, Broken Concrete Underdrain *** French Drain D-3 Sheet Piling Filter Filter Fabric Jacket (Culvert) Concrete Pavement Subdrainage D-4 Ditch Pavement (Sand-Cement) Ditch Pavement (Sand-Cement) Cast-In-Place Retaining Wall Cast-In-Place Retaining Wall D-6 Ditch Pavement (Concrete) Ditch Pavement (Concrete) E-1 Staked Silt Fence E-2 Wind Screen E-3 Plastic Erosion Mat (Turf Reinforcement Mat) (Type 1) E-4 Plastic Erosion Mat (Turf Reinforcement Mat) (Type 2) | D-1 Revetment (Special) Revetment (Standard) Articulating Block**** Gabions 281 Rock, Rubble, Broken Concrete Underdrain *** 286 French Drain 285 Sheet Piling Filter Filter Fabric Jacket (Culvert) 280 Concrete Pavement Subdrainage 287 D-4 Slope Pavement (Sand-Cement) Ditch Pavement (Sand-Cement) 281 D-5 Mechanical Stabilized Retaining Wall Cast-In-Place Retaining Wall Cast-In-Place Retaining Wall Slope Pavement (Concrete) Ditch Pavement (Concrete) Ditch Pavement (Concrete) E-1 Staked Silt Fence 102 E-2 Wind Screen E-3 Plastic Erosion Mat (Turf Reinforcement Mat) (Type 1) F-4 Plastic Erosion Mat (Turf Reinforcement Mat) (Type 2) F-5 Plastic Erosion Mat The Plastic Erosion Mat (Turf Reinforcement Mat) (Type 2) | D-1 Revetment (Special) (See D-2) | D-1 Revetment (Special) (See D-2) (See D-2) | D=1 Revetment (Special) (See D-2) (See D-2) 315 | APPLICATION DESCRIPTION No. PERMITTIVITY SECT SIEVE # THISILE STRENGTH Ib./in. | APPLICATION MO. PERMITTIVITY SEC* SIEVE# TENSILE STRENGTH Ib. MIN. PUNCTURE STRENGTH Ib. MIN. MIN. | APPLICATION DESCRIPTION No. PERMITTIVITY SECT SIEVE# STENGTH STENGTH D./.m. MIN. PUNCTURE TEAR TEARS SEWN STENGTH D./.m. No. TRAPEZODAL TEAR TEA | ## APPLICATION INDEX PERMITTIVITY ADS TENSILE STRENGTH SENT SENTENCTH STRENGTH Ib./in. III. III. | APPLICATION DOES (RIPTION NO. SEC* SIEVE# SIEVE# STRENGTH Ib. TRAFECIONAL TEAR TEAR SEW MIN. TEAR STRENGTH Ib. TRAFECIONAL TEAR TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR STRENGTH Ib. TEAR TEAR | ## APPLICATION NO. PERMITTIVITY SIEVE# STREWTH STREWTH STREWTH D. TRAPEZIOLAL FIRST STREWTH D. TRAPEZIOLAL TRAPEZIOL |

(1) Type refers to FDOT class and application.

TABLE I

| Test | Unit | Test Method |
|---|--|---|
| Permittivity AOS Elongation | sec ⁻¹ US Sieve No. % | ASTM-D-4491 ASTM-D-4751 ASTM-D-4632 |
| Grab Tensile Strength Wide Width Tensile Strength Maximum Design Velocity | lb. Ib./in. ft/sec | ASTM-D-4632 ASTM-D-4595 See Design Note 3 |
| Sewn Strength Puncture | lb./in. lb. | ASTM-D-4884 ASTM-D-4833 |
| Trapezoidal Tear Ultraviolet Resistance | lb. % Retained In Strength | ASTM-D-4533 ASTM-D-4355 |
| Filtration Efficiency | % | ASTM-D-5141 |
| Flow Rate | gal³/min. | ASTM-D-5141 |

GENERAL NOTES

- 1. Specifications for geotextiles are in Section 985. Physical criteria for each application is provided by this standard, in conjunction with those sections.
- 2. All values except AOS are MINIMUM AVERAGE ROLL values in the weakest principal direction. Values for AOS are MAXIMUM AVERAGE ROLL values.
- 3. Test soil or fill material adjacent to the geotextile for gradation to select values for permittivity and AOS.
- 4. Unless specifically restricted in COMMENTS column, any type of material meeting specification 985 may be used.
- 5. Wide width tensile strength is expressed in units of measure of Ib./in., in machine direction and cross direction, as MD x CD.
- 6. The Manufacturer shall provide results in English Units.

DESIGN NOTES

- 1. The Designer shall review this criteria and adjust the values as necessary to satisfy project requirements. These adjustments shall be called for in the plans or contained in the project special provisions.
- 2. UV Resistance: The value represents the percent minimum textile strength retained (ASTM-D-4632) after weathering per ASTM-D-4355 for the test period (hours).
- 3. Shear stress limits for plastic erosion mats determined by 30 minutes sustained flow in unvegetated state as determined by tests performed by Utah State University, Texas Transportation Institute or an independent testing laboratory approved by the State Drainage Engineer.

≥ DESCRIPTION: