

- B. **Vinyl Monofilament Mat.** Material shall meet Section 856.03 A except that the mat shall be constructed of entangled vinyl monofilaments. The minimum thickness shall be 0.25 inches.

856.04 STAPLES.

Staples for erosion control blankets shall be constructed of 11 gauge or heavier steel wire and shall be either U-shaped measuring at least 1 inch across the top and at least 6 inches along each leg, or shall be T-shaped measuring at least 4 inches across the top and at least 8 inches in length.

856.05 FABRIC FORMED SLOPE PROTECTION.

Fabric forming material shall consist of specially woven, double-layer, open salvage fabric joined in a mat configuration. The fabric shall consist of uncoated synthetic yarns with sufficient tensile strength and porosity to withstand the pressure of the grout injection pump without breaking the layers of fabric.

Spacer threads capable of a tensile strength of at least 8.0 psi of surface area shall be woven between the layers at the required distance to control the mat thickness.

**SECTION 858
GEOTEXTILE FABRICS**

858.01 GENERAL.

Geotextile fabric shall be a fabric consisting of polymeric filament or yarns such as polypropylene, polyethylene, polyester, polyamide, or polyvinylidene chloride. The filaments or yarns shall be formed into a stable network so they retain their relative position to each other. The geotextile shall be inert to commonly encountered chemicals and meet the properties in the following table:

A. Geotextile Fabrics.

		GEOTEXTILE FABRIC TYPE								
Geotextile Property	Test Method	Separation ⁽²⁾		Drains				Riprap	Reinforcement	
		S1	S2	D1	D2	D3 ⁽³⁾	D4 ⁽³⁾	RR	R1	R2 ⁽⁴⁾
Grab Tensile Strength ⁽¹⁾ , lbs., min.	ASTM D-4632	180	180	180	80	100	N/A	200	N/A	–
Grab Tensile Elongation, %, min.	ASTM D-4632	N/A	N/A	N/A	N/A	N/A	N/A	15	N/A	–
Grab Tensile Strength ⁽¹⁾ , lbs./in., min., Wide-Width Method	ASTM D-4595	N/A	N/A	N/A	N/A	N/A	N/A	N/A	270	–
Grab Tensile Elongation, % max.	ASTM D-4595	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	–
Trapezoid Tear Strength, lbs., min. (any direction)	ASTM D-4533	50	50	50	25	N/A	N/A	50	100	–
Puncture Strength lbs., min.	ASTM D-4833	75	75	80	25	N/A	N/A	80	100	–
AOS less than mm. (greater than US STD. Sieve)	ASTM D-4751	0.212 (70)	0.150 (100)	0.300 (50)	0.150 (100)	0.125-0.425 (40–120)	0.125-0.425 (40–120)	0.300 (50)	0.600 (30)	–
Permittivity, sec. ⁻¹ , min.	ASTM D-4491	0.10	0.05	0.50	.05	0.70	1.0 relaxed	0.20	0.05	–
UV Resistance (After 150 hrs.) % Strength Retained	ASTM D-4355	70	70	70	70	70	N/A	70	70	–
Weight oz/sy		N/A	N/A	N/A	N/A	N/A	3.5	N/A	N/A	–
Swen-Seam Strength, lbs.	ASTM D-4632	160	160	160	70	90	N/A	180	N/A	–
Sewn-Seam Strength, lbs/in.	ASTM D-4884	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	–

(All values represent minimum roll values. Test results from any sample shall meet or exceed the minimum values listed.)

(1) Weakest principal direction.

(2) Separation Fabrics shall be nonwoven fabrics.

(3) Type D3 and D4 fabric will only be used as a geotextile fabric sock. The type D4 fabric will be knit of 150 denier (min.) polyester yarn, exhibit minimum snag or "run" potential, be factory-applied to maintain a uniform installed weight, and conform to the outside diameter of the pipe with a snug fit throughout.

(4) Properties will be specified by Plan Note.

B. Concrete Curing Fabric. The concrete curing fabric shall be a highly absorbent fabric made from a light colored nonwoven material that weighs a minimum of eight ounces per square yard.