

Uniform Standard Specifications and Details for Public Works Construction

Maricopa Association of Governments

Specification dated: January 2014

		Class A	Class B
Table 796-1	Pavement	MPV500	MPV400 ¹

TABLE 796-1 PAVEMENT GEOSYNTHETIC PROPERTIES			
Property	Class A	Class B	Test Method
Weight: oz/yd ²	4.1 min.	4.0 min.	ASTM D3776
Grab tensile strength: lbs.	100 min.	90 min.	ASTM D4632
Elongation at break: %	50 min.	50 min.	ASTM D4632
Melting point: degree F	300 min.	300 min.	ASTM D276
Asphalt retention: gal/yd ²	0.25 min. ⁽¹⁾	0.20 min.	ASTM D6140

(1) May be reduced within street intersections, on steep grades or in other zones where vehicle braking is common, but not less than 0.20 gal/yd², when approved by the Engineer.

Table 796.2	Filtration and Drainage	170N ³	135N ³
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TABLE 796-2 FILTRATION & DRAINAGE GEOSYNTHETIC PROPERTIES			
Property	Class A ⁽¹⁾	Class B ⁽²⁾	Test Method
Grab tensile strength: lbs.	180 min.	80 min.	ASTM D4632
Seam strength: lbs.	160 min.	70 min.	ASTM D4632
Puncture strength: lbs.	80 min.	25 min.	ASTM D4833
Trapezoidal tear: lbs	50 min.	25 min.	ASTM D4533
Apparent opening size: US Standard sieve size	>50	>50	ASTM D4751
Ultraviolet Stability: %	50 min.	50 min.	ASTM D4355

- (1) Class A - Use where installation stresses are more severe than for Class B application (i.e. very coarse sharp angular aggregate or high compaction requirements).
 (2) Class B - Use with smooth graded surface having no sharp angular projections and sharp angular aggregate.

Table 796.3	Erosion Control ²	1120N ^{3, 4}	180N ^{3, 4} / FW404 ³
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TABLE 796-3 EROSION CONTROL GEOSYNTHETIC PROPERTIES			
Property	Class A	Class B	Test Method
Grab tensile strength: lbs.	270 min.	200 min.	ASTM D4632
Elongation at break: %	45 min., 115 max.	15 min., 115 max.	ASTM D4632
Puncture strength: lbs.	110 min.	75 min.	ASTM D4833
Burst strength: psi	430 min.	320 min.	ASTM D3786
Trapezoidal tear: lbs	75 min.	50 min.	ASTM D4533
Permittivity: second ⁻¹	0.07 min.	0.07 min.	ARIZ-730 ⁽¹⁾
Apparent opening size: US Standard sieve size	30 - 140	30 - 140	ASTM D4751
Ultraviolet Stability: %	70 min.	70 min.	ASTM D4355

(1) Arizona Department of Transportation test method.

		Type 1	Type 2
Table 796.4	Reinforcement Geogrid	BXG110	BXG120

TABLE 796-4 REINFORCEMENT GEOGRID PROPERTIES			
Property	Type 1	Type 2	Test Method
Aperture size: inches	1 min.	1-3/8 min.	ID callipered
Ultimate Tensile Strength: lb/ft	850 min.	1300 min.	ASTM D4945
Flexural Rigidity: Mg-cm	250,000 min.	750,000 min.	ASTM D1388
Tensile Strength @ 2% Strain: lb/ft MD ⁽¹⁾	270 min.	410 min.	ASTM D6637
Tensile Strength @ 2% Strain: lb/ft CMD ⁽²⁾	380 min.	620 min.	ASTM D6637
Tensile Strength @ 5% Strain: lb/ft MD ⁽¹⁾	550 min.	810 min.	ASTM D6637
Tensile Strength @ 5% Strain: lb/ft CMD ⁽²⁾	720 min.	1340 min.	ASTM D6637
Junction Efficiency: % Ultimate Tensile Strength	75 min.		GRI-GG2 ⁽³⁾
Ultraviolet Stability: % Retained Strength	70 min.		ASTM D4355

- (1) MD = Test in the machine direction along roll length
 (2) CMD = Test in the cross-machine (transverse) direction across roll width
 (3) Geosynthetic Research Institute test method

¹ Asphalt Retention requires Engineer's approval

² Permittivity tested according to ASTM D4491

³ Burst Strength and Puncture not recognized by AASHTO M288, replaced with CBR Puncture Strength, ASTM D6241

⁴ Elongation may exceed 115%