

Evaluation Table:

PEP ID:	
Manufacturer:	
Product Name:	

1014 Geosynthetics
 1014-7 Geocomposite Edge Drain System
 ADOT Specifications: 1014-1, 1014-7, 1014-9

Product Property	Specification/ Test Method	Requirement	Results	Pass/ Fail
General Requirements:	1014-1	Fibers, yarns, and filaments used in the manufacture of geotextile fabric, and the threads used in joining by sewing, shall consist of long-chain synthetic polymers, composed at least 95 percent, by weight, of polyolefins or polyesters. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other, including selvages.		
General Requirements:	1014-1	Geosynthetic materials shall be furnished in protective covers capable of protecting the materials from harmful environmental conditions such as ultraviolet rays, abrasion, extreme heat, and water.		
General Requirements:	1014-1	Geotextile fabric shall be resistant to chemical attack, rot, and mildew, and shall have no tears or defects which will adversely alter its physical properties.		
Geocomposite Edge Drain System:	1014-7	The geocomposite edge drain system shall be of composite construction, consisting of a supporting rectangular structure of draining core material wrapped with a geotextile fabric. The fabric shall surround and be attached to the core material in a manner which does not restrict the flow capacity of the core material.		

Product Property	Specification/ Test Method	Requirement	Results	Pass/ Fail
Geocomposite Edge Drain System:	1014-7	The geocomposite edge drain system shall be resistant to commonly encountered chemicals and hydrocarbons, and resistant to ultraviolet exposure.		
Geocomposite Edge Drain Core:	1014-7.01	The geocomposite edge drain core material shall consist of a preformed, stable, polymer plastic material with a cusped, nipped, ridged, slotted, and/or perforated structure.		
Geocomposite Edge Drain Core:	1014-7.01	The drainage core shall provide support for and may be bonded to the geotextile filter fabric. Its preformed structure shall be perforated to allow water to flow freely to the weep hole and drainage outlets.		
Geocomposite Edge Drain Core:	1014-7.01	The core shall have at least 14 square inches of flat area in contact with the geotextile fabric to support the fabric per square foot.		
Geocomposite Edge Drain Core:	1014-7.01	The core material shall conform to the following physical requirements:		
Thickness Wrapped with Fabric	ASTM D1777	0.75 inches min.		
Compressive Strength	ASTM D1621	6,000 psf min.		
Transmissivity; Fabric Wrapped Core, Gradient = 0.1, Normal Stress = 1440 psf	ASTM D4716	4.0 gpm/ft min. (Use a full width panel, if possible, testing flow on the side which may be placed against the soil to be drained.)		
Width	Measured	1.0 ft min.		
Geocomposite Edge Drain Fabric:	1014-7.02	The geocomposite edge drain fabric shall completely wrap around the drainage core material in a snug manner and may be permanently bonded to the core.		
Outlet Pipes:	1014-7.03	The outlet pipe for the edge drain outlet lateral shall be rigid, 4-inch in diameter, Schedule 40 PVC pipe conforming to the requirements of ASTM D1785.		

Product Property	Specification/ Test Method	Requirement	Results	Pass/ Fail
Drainage Fabric	1014-9	Drainage fabric shall meet the following requirements (Non-woven, elongation $\geq 50\%$, as measured in accordance with ASTM D4632):		
Grab Strength	ASTM D4632	157 lbs. min.		
Tear Strength	ASTM D4533	56 lbs. min.		
Puncture Strength	ASTM D6241	309 lbs. min.		
Ultraviolet stability (retained strength)	ASTM D4355	$\geq 50\%$ after 500 hours exposure		
Permittivity	ASTM D4491	0.5 sec ⁻¹		
Apparent opening size	ASTM D4751	No. 70 U.S. Standard sieve size		