

# GSE RoaDrain 7-RD Geocomposite

GSE RoaDrain 7 geocomposite consists of a tri-planar geonet heat-laminated on both sides with an 8 oz. nonwoven needle-punched geotextile. This product quickly removes subsurface water from pavement base and sub-base layers, while providing a void-maintaining system to work as a capillary break. RoaDrain 7 also works as a separation layer, as well as a replacement of natural stone drainage layers directly under highway pavements.



## AT THE CORE:

A tri-planar geonet heat-laminated on both sides with a nonwoven needlepunched geotextile.

## Product Specifications

Tested Property	Test Method	Value	Qualifier <sup>(1)</sup>
<b>Tri-Planar Core<sup>(2)</sup></b>			
Density, g/cm <sup>3</sup>	ASTM D 792	0.94 - 0.96	Range
Carbon Black, %	ASTM D 4218	2-3	Range
Rib Spacing (top & bottom), in (mm)	Calipered	0.4 (10)	Typical
Central Rib Spacing, in (mm)	Calipered	0.5 (12.5)	Typical
Unsupported Aperture Area, in <sup>2</sup> (mm <sup>2</sup> )	Calipered	0.3 (195)	Max
Thickness, mil (mm)	ASTM D 5199	300 (7.6)	±10%
<b>Geotextile<sup>(2)</sup></b>			
Strength	AASHTO M 288	Exceeds Class 1	
UV Resistance (500 hrs), %	ASTM D 4355	70	MARV
AOS, US Sieve (mm)	ASTM D 4751	80 (0.15)	MaxARV
Permittivity, sec <sup>-1</sup>	ASTM D 4491	1.1	MARV
Water Flow Rate, gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	ASTM D 4491	90 (3675)	MARV
<b>SSDL Performance</b>			
Pavement Fatigue, cycles before cracks progogate		3000	Notes <sup>(3)</sup>
Capillary Barrier	ASTM 5918	Effective	Notes <sup>(4)</sup>
Coefficient of Permeability <sup>(6)</sup> , ft/day	ASTM D 4716	56,700	Notes <sup>(5)</sup>
<b>Flow Orientation</b>			
Direction of Primary Flow		Across the roll width @ approximately 45°	
<b>NOMINAL ROLL DIMENSIONS</b>			
Roll Width, ft (m)		12.75 (3.89)	
Roll Length, ft (m)		152 (46.3)	
Roll Area, ft <sup>2</sup> (m <sup>2</sup> )		1,938 (180)	

NOTES:

- <sup>(1)</sup> Qualifiers: MARV=Minimum Average Roll Value, MAV=Minimum Average Value, MAX=Maximum Value, MaxARV = Maximum Average Roll Value
- <sup>(2)</sup> Geotextile and core properties listed are prior to lamination.
- <sup>(3)</sup> Cyclic Fatigue Test was performed at the University of Illinois, Advanced Transportation Research and Engineering Laboratory. The test was performed on a concrete beam supported by the SSDL overlying a clay subgrade. The Stress Ratio defined as: Load Stress/Flexural Strength of the Concrete Beam = 0.83.
- <sup>(4)</sup> As tested by the USACE Cold Regions Research and Engineering Laboratory (CRREL).
- <sup>(5)</sup> Coefficient of permeability is calculated with the measured SSDL transmissivity and the nominal core thickness. SSDL transmissivity is tested along the primary flow direction with the boundary conditions as follows: steel plate/Ottawa sand/SSDL/Ottawa sand/steel plate, one hour seating period @ 15,000 psf and gradient 2%.
- <sup>(6)</sup> Direction of primary flow - across the roll width at approximately 45°.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



**[ DURABILITY RUNS DEEP ]** For more information on this product and others, please visit us at [GSEworld.com](http://GSEworld.com), call 800.435.2008 or contact your local sales office.