



The Pioneer Of Geosynthetics  
S I N C E 1 9 7 2

## GSE Nonwoven Geotextile

GSE Nonwoven Geotextile is a family of staple fiber needlepunched geotextiles. The geotextile is manufactured using an advanced manufacturing and quality system, to produce the most uniform and consistent nonwoven needlepunched geotextile currently available in the industry. GSE combines a fiber selection and approval system with in-line quality control and a state-of-the-art laboratory to ensure that every roll shipped meets customer specifications and for various applications.

### Product Specifications

These product specifications meet or exceed GRI GT12, GRI GT13 and AASHTO M288.

TESTED PROPERTY	TEST METHOD	FREQUENCY	MINIMUM AVERAGE VALUE					
			NW4	NW6	NW8	NW10	NW12	NW16
AASHTO M288 Class			3	2	1	>1	>>1	>>>1
Mass per Unit Area, oz/yd <sup>2</sup> (g/m <sup>2</sup> )	ASTM D 5261	90,000 ft <sup>2</sup>	4 (135)	6 (200)	8 (270)	10 (335)	12 (405)	16 (540)
Grab Tensile Strength, lb (N)	ASTM D 4632	90,000 ft <sup>2</sup>	120 (530)	160 (710)	220 (975)	260 (1,155)	320 (1,420)	390 (1,735)
Grab Elongation, %	ASTM D 4632	90,000 ft <sup>2</sup>	50	50	50	50	50	50
Puncture Strength, lb (N)	ASTM D 4833	90,000 ft <sup>2</sup>	60 (265)	90 (395)	120 (525)	165 (725)	190 (835)	240 (1,055)
Trapezoidal Tear Strength, lb (N)	ASTM D 4533	90,000 ft <sup>2</sup>	50 (220)	65 (290)	90 (395)	100 (445)	125 (555)	150 (665)
Apparent Opening Size, Sieve No. (mm)	ASTM D 4751	540,000 ft <sup>2</sup>	70 (0.212)	70 (0.212)	80 (0.180)	100 (0.150)	100 (0.150)	100 (0.150)
Permittivity, sec <sup>-1</sup>	ASTM D 4491	540,000 ft <sup>2</sup>	1.80	1.50	1.30	1.00	0.80	0.60
Water Flow Rate, gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	ASTM D 4491	540,000 ft <sup>2</sup>	135 (5,495)	110 (4,480)	95 (3,865)	75 (3,050)	60 (2,440)	45 (1,830)
UV Resistance (% retained after 500 hours)	ASTM D 4355	per formulation	70	70	70	70	70	70
NOMINAL ROLL DIMENSIONS								
Roll Length <sup>(1)</sup> , ft (m)			850 (259)	850 (259)	600 (182)	500 (152)	400 (122)	300 (91)
Roll Width <sup>(1)</sup> , ft (m)			15 (4.5)	15 (4.5)	15 (4.5)	15 (4.5)	15 (4.5)	15 (4.5)
Roll Area, ft <sup>2</sup> (m <sup>2</sup> )			12,750 (1,185)	12,750 (1,185)	9,000 (836)	7,500 (698)	6,000 (557)	4,500 (418)

#### NOTES:

- The property values listed are in weaker principal direction. All values listed are Minimum Average Values except apparent opening size in mm and UV resistance. Apparent opening size (mm) is a Maximum Value. UV is a typical value.
- <sup>(1)</sup>Roll lengths and widths have a tolerance of ±1%.