



Mirafi® N-Series Nonwoven Polypropylene Geotextiles

For Soil Separation, Filtration and Protection



Ten Cate Nicolon

PRODUCT DESCRIPTION

Mirafi N-Series products are nonwoven geotextiles comprised of polypropylene staple fibers. Mirafi N-Series Nonwoven Polypropylene Geotextiles provide excellent physical and hydraulic properties in addition to high tensile strengths.

FEATURES AND BENEFITS

- **Construction.** Mirafi N-Series geotextiles easily conform to the ground or trench surface for trouble-free installation.
- **Strength.** Mirafi N-Series geotextiles withstand severe installation stresses with high puncture and burst resistance.
- **Filtration.** High permeability properties provide high water flow rates while providing excellent filtration properties.
- **Environmental.** Mirafi N-Series geotextiles are chemically stable in a wide range of aggressive environments.
- **Cost effective.** Mirafi N-Series geotextiles provide economical solutions to many civil engineering applications including a cost-effective alternative to graded-aggregate filters.

APPLICATIONS

Mirafi N-Series Nonwovens are used in a wide variety of applications including separation, filtration, and protection applications.

Lightweight nonwovens are predominantly used for subsurface drainage applications along highways, within embankments, under airfields, and athletic fields. For these drainage structures to be effective, they must have a properly designed protective filter. Mirafi N-Series Nonwoven Geotextiles eliminate the problems of determining the aggregate gradation required to match soil conditions, finding a convenient and economical source of a specific aggregate gradation, transporting and placing graded aggregate, and assuring that the in-place aggregate gradation provides effective filter performance.

Heavyweight nonwovens are used in critical subsurface drainage systems, soil separation, permanent erosion control, and geomembrane liner protection within landfills. These geotextiles provide the required strength and abrasion resistance to withstand installation and application stresses to create an effective, long-term solution.

DESCRIPTION

Drainfield 3' x 360' (1,080 sq-ft.)

Drainfield 4' x 360' (1,440 sq-ft.)

135N – 3' x 360' (1,080 sq-ft.) - 3 oz.

140NL – 12.5' x 360' (4,500 sq-ft.) - 3.8 oz.

157-140NL125

140NL – 15' x 360' (5,400 sq-ft.) - 3.8 oz.

157-140NL15

140NC – 12.5' x 360' (4,500 sq-ft.) - 4 oz.

157-140NC125

140NC – 15' x 360' (5,400 sq-ft.) - 4 oz.

157-140NC15

140N – 12.5' x 360' (4,500 sq-ft.) - 4.5 oz.

157-140N125

140N – 15' x 360' (5,400 sq-ft.) - 4.5 oz.

157-140N15

160N – 15' x 300' (4,500 sq-ft.) - 6 oz.

157-160N15

170N – 15' x 300' (4,500 sq-ft.) - 7 oz.

157-170N15

180N – 15' x 300' (4,500 sq-ft.) - 8 oz.

157-180N15

1100N – 15' x 300' (4,500 sq-ft.) - 10 oz.

157-1100N15

1120N – 15' x 300' (4,500 sq-ft.) - 12 oz.

157-1120N

1160N – 15' x 150' (2,250 sq-ft.) - 16 oz.

157-1160N

CUSTOM SIZES AVAILABLE BY SPECIAL ORDER

			CALTRANS				CALTRANS			
PROPERTY / TEST METHOD	UNITS	140NL	140NC	140N	160N	170N	180N	1100N	1120N	1160N
MECHANICAL PROPERTIES										
Grab Tensile Strength										
ASTM D 4632										
–Strength @ Ultimate	kN (lbs)	0.40 (90)	0.45 (100)	0.53 (120)	0.71 (160)	0.80 (180)	0.9 (205)	1.11 (250)	1.34 (300)	1.69 (380)
–Elongation @ Ultimate	%	50	50	50	50	50	50	50	50	50
Mullen Burst Strength	kPa	1205	1447	1550	2100	2273	2618	3445	4030	5098
ASTM D 3786	(p.s.i.)	(175)	(210)	(225)	(305)	(330)	(380)	(500)	(585)	(740)
Trapezoidal Tear Strength	kN	0.16	0.20	0.22	0.27	0.33	0.36	0.45	0.51	0.62
ASTM D 4355	(lbs)	(35)	(45)	(50)	(60)	(75)	(80)	(100)	(115)	(140)
Puncture Strength	kN	0.24	0.30	0.30	0.42	0.46	0.58	0.69	0.78	1.05
ASTM D 4833	(lbs)	(55)	(65)	(65)	(95)	(105)	(130)	(155)	(175)	(235)
UV Resistance after 500 hrs.	% strength	70	70	70	70	70	70	70	70	70
ASTM D 4355										
HYDRAULIC PROPERTIES										
Apparent Opening Size (AOS)	US Sieve	60	70	70	70	80	80	100	100	100
ASTM D 4751	mm	0.25	0.212	0.212	0.212	0.180	0.180	0.150	0.150	0.150
Permittivity	sec-1	2.0	1.9	1.8	1.4	1.4	1.2	1.0	0.8	0.7
ASTM D 4491										
Flow Rate	l/min/m²	5907	5698	5500	4477	4278	3866	3056	2648	2037
ASTM D 4491	(gal/min/ft²)	(145)	(140)	(135)	(110)	(105)	(95)	(75)	(65)	(50)

NOTE: All Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV).