



Mirafi[®] 140NL/O

Mirafi[®] 140NL/O is an orange nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi[®] 140NL/O is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

TenCate Geosynthetics Americas Laboratories are accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program ([GAI-LAP](#)).

Mechanical Properties	Test Method	Unit	Typical Value ¹	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	100 (445)	100 (445)
Grab Tensile Elongation	ASTM D4632	%	75	75
Trapezoid Tear Strength	ASTM D4533	lbs (N)	50 (223)	50 (223)
CBR Puncture Strength	ASTM D6241	lbs (N)	310 (1380)	
Permittivity	ASTM D4491	sec ⁻¹	2.4	
Flow Rate	ASTM D4491	gal/min/ft ² (l/min/m ²)	175 (7130)	
UV Resistance (at 500 hours) ¹	ASTM D4355	% strength retained	70	

Physical Properties	Unit	Typical Value ²
Weight (ASTM D5161)	oz/yd ² (g/m ²)	3.8 (129)
Thickness (ASTM D5199)	mils (mm)	35 (0.9)
Roll Dimensions (width x length)	ft (m)	15 x 360 (4.5 x 110)
Roll Area	yd ² (m ²)	600 (502)
Estimated Roll Weight	lb (kg)	157 (71)

Mirafi[®] 140NL/O orange polypropylene nonwoven is not manufactured with any heavy metals contents. The regulated metals – lead, mercury, cadmium, and hexavalent chromium are not intentionally added to any component in this product during the manufacturing process.

² ASTM D4439 Standard Terminology for Geosynthetics: typical value, *n*—for *geosynthetics*, the mean value calculated from documented manufacturing quality control test results for a defined population obtained from one test method associated with on specific property.

Disclaimer: TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi[®] is a registered trademark of Nicolon Corporation.

Copyright © 2014 Nicolon Corporation. All Rights Reserved

365 South Holland Drive
Pendergrass, GA 30567

Tel 706 693 2226
Tel 888 795 0808

Fax 706 693 4400
www.tencate.com



FGS000664
ETQR10

GAI-LAP-25-97



Mirafi® 160N/O

Mirafi® 160N/O is an orange nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi® 160N/O is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

TenCate Geosynthetics Americas Laboratories are accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program ([GAI-LAP](#)).

Mechanical Properties	Test Method	Unit	Typical Value ²	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	175 (779)	175 (779)
Grab Tensile Elongation	ASTM D4632	%	75	75
Trapezoid Tear Strength	ASTM D4533	lbs (N)	85 (378)	85 (378)
CBR Puncture Strength	ASTM D6241	lbs (N)	480 (2136)	
Permittivity	ASTM D4491	sec ⁻¹	1.5	
Flow Rate	ASTM D4491	gal/min/ft ² (l/min/m ²)	105 (4278)	
UV Resistance (at 500 hours) ¹	ASTM D4355	% strength retained	80	

Physical Properties	Unit	Typical Value ²
Weight (ASTM D5161)	oz/yd ² (g/m ²)	6.5 (220)
Thickness (ASTM D5199)	mils (mm)	65 (1.7)
Roll Dimensions (width x length)	ft (m)	15 x 300 (4.5 x 91)
Roll Area	yd ² (m ²)	500 (418)
Estimated Roll Weight	lb (kg)	220 (100)

Mirafi® 160N/O orange polypropylene nonwoven is not manufactured with any heavy metals contents. The regulated metals – lead, mercury, cadmium, and hexavalent chromium are not intentionally added to any component in this product during the manufacturing process.

² ASTM D4439 Standard Terminology for Geosynthetics: typical value, *n—for geosynthetics*, the mean value calculated from documented manufacturing quality control test results for a defined population obtained from one test method associated with on specific property.

Mirafi® is a registered trademark of Nicolon Corporation. Copyright © 2014 Nicolon Corporation. All Rights Reserved.

Disclaimer: TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.



Mirafi[®] 180N/O



Mirafi[®] 180N/O is an orange nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi[®] 180N/O is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

TenCate Geosynthetics Americas Laboratories are accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program ([GAI-LAP](#)).

Mechanical Properties	Test Method	Unit	Typical Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	240 (1068)	240 (1068)
Grab Tensile Elongation	ASTM D4632	%	70	70
Trapezoid Tear Strength	ASTM D4533	lbs (N)	90 (400)	90 (400)
CBR Puncture Strength	ASTM D6241	lbs (N)	630 (2802)	
Permittivity	ASTM D4491	sec ⁻¹	1.5	
Flow Rate	ASTM D4491	gal/min/ft ² (l/min/m ²)	95 (3870)	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	80	

Physical Properties	Unit	Typical Value ²
Weight (ASTM D5161)	oz/yd ² (g/m ²)	8.0 (271)
Thickness (ASTM D5199)	mils (mm)	70 (1.8)
Roll Dimensions (width x length)	ft (m)	15 x 300 (4.5 x 91)
Roll Area	yd ² (m ²)	500 (418)
Estimated Roll Weight	lb (kg)	271 (122)

Mirafi[®] 180N/O orange polypropylene nonwoven is not manufactured with any heavy metals contents. The regulated metals – lead, mercury, cadmium, and hexavalent chromium are not intentionally added to any component in this product during the manufacturing process.

Disclaimer: TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi[®] is a registered trademark of Nicolon Corporation.

Copyright © 2014 Nicolon Corporation. All Rights Reserved.