

### Geolon® HP370

Geolon® HP370 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP370 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	47.3 (3240)	39.4 (2700)
Tensile Strength (at 2% strain)	ASTM D 4595	kN/m (lbs/ft)	7.9 (540)	7.9 (540)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	19.8 (1356)	19.8 (1356)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	35.0 (2400)	35.0 (2400)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	24.6 (1688)	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	1629 (40)	
Permeability	ASTM D 4491	cm/sec	0.050	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.52	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.600 (30)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 1,356/0.05 = 27,120 lbs/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	284 (8.5)
Roll Dimensions (width x length)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	121 (266)

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### Geolon® HP670

Geolon® HP670 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP670 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	91.1 (6420)	70.0 (4800)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	39.4 (2700)	39.4 (2700)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	78.8 (5400)	70.0 (4800)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	43.8 (3000)	
Flow Rate	ASTM D 4491	L/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	1548 (38)	
Permeability	ASTM D 4491	cm/sec	0.076	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.50	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.850 (20)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 2700/0.05 = 54000 lb/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	530 (15.7)
Roll Dimensions (length x width)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	230 (508)

**DISCLAIMER:** Ten Cate Nicolon warrants our products to be free from defects in material and workmanship when delivered to Ten Cate Nicolon's customers and that our products meet our published specifications. Contact your local Ten Cate Nicolon Representative for detailed product specification.

### Geolon® HP665

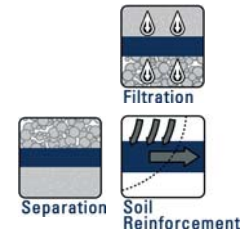
Geolon® HP665 is composed of high-tenacity polypropylene yarns, which are woven into a network network such that the yarns retain their relative position. HP665 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	70.0 (4800)	96.3 (6600)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	17.5 (1200)	61.3 (4200)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	43.8 (3000)	96.4 (6600)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	52.5 (3600)	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	813 (20)	
Permeability	ASTM D 4491	cm/sec	0.040	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.26	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.425 (40)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 1,200/0.05 = 24,000 lbs/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	585 (17.3)
Roll Dimensions (width x length)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	253 (558)

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# Geolon<sup>®</sup> HP570

Geolon<sup>®</sup> HP570 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP570 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	70.0 (4800)	70.0 (4800)
Tensile Strength (at 2% strain)	ASTM D 4595	kN/m (lbs/ft)	14.0 (960)	19.3 (1320)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	35.0 (2400)	38.0 (2604)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	70.0 (4800)	70.0 (4800)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	43.8 (3000)	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	1222 (30)	
Permeability	ASTM D 4491	cm/sec	0.050	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.40	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.600 (30)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 2400/0.05 = 48000 lb/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	490 (14.5)
Roll Dimensions (length x width)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	215 (475)

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### Geolon® HP565

Geolon® HP565 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP565 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	61.3 (4200)	70.0 (4800)
Tensile Strength (at 2% strain)	ASTM D 4595	kN/m (lbs/ft)	7.9 (540)	19.3 (1320)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	22.8 (1560)	35.0 (2400)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	61.3 (4200)	70.0 (4800)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	35.0 (2400)	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	81 (2)	
Permeability	ASTM D 4491	cm/sec	0.001	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.025	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.425 (40)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 1,560/0.05 = 31,200 lbs/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	463 (13.7)
Roll Dimensions (width x length)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	202 (445)

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### Geolon® HP465

Geolon® HP465 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP465 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595-86	kN/m (lbs/ft)	52.5 (3600)	47.3 (3240)
Tensile Strength (at 2% strain)	ASTM D 4595-86	kN/m (lbs/ft)	8.8 (600)	8.8 (600)
Tensile Strength (at 5% strain)	ASTM D 4595-86	kN/m (lbs/ft)	21.9 (1500)	21.9 (1500)
Tensile Strength (at 10% strain)	ASTM D 4595-86	kN/m (lbs/ft)	52.5 (3600)	47.3 (3240)
Factory Seam Strength	ASTM D 4884-96	kN/m (lbs/ft)	26.3 (1800)	
Flow Rate	ASTM D 4491-99A	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	815 (20)	
Permeability	ASTM D 4491-99A	cm/sec	0.025	
Permittivity	ASTM D 4491-99A	sec <sup>-1</sup>	0.26	
Apparent Opening Size (AOS)	ASTM D 4751-00	mm (U.S. Sieve)	0.425 (40)	
UV Resistance (at 500 hours)	ASTM D 4355-02	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 1,500/0.05 = 30,000 lbs/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261-92	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	321 (9.5)
Roll Dimensions (width x length)	--	m (ft)	4.5 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	156 (344)

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Ten Cate Nicolon



Filtration

Separation

Soil Reinforcement

# Geolon<sup>®</sup> HP770

Geolon<sup>®</sup> HP770 is composed of high-tenacity polypropylene yarns, which are woven into a network such that the yarns retain their relative position. HP770 is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Tensile Strength (at ultimate)	ASTM D 4595	kN/m (lbs/ft)	105.1 (7200)	70.1 (4800)
Tensile Strength (at 2% strain)	ASTM D 4595	kN/m (lbs/ft)	11.4 (780)	19.3 (1320)
Tensile Strength (at 5% strain)	ASTM D 4595	kN/m (lbs/ft)	52.5 (3600)	52.5 (3600)
Tensile Strength (at 10% strain)	ASTM D 4595	kN/m (lbs/ft)	96.4 (6600)	70.1 (4800)
Factory Seam Strength	ASTM D 4884	kN/m (lbs/ft)	43.8 (3000)	
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	610 (15)	
Permeability	ASTM D 4491	cm/sec	0.038	
Permittivity	ASTM D 4491	sec <sup>-1</sup>	0.23	
Apparent Opening Size (AOS)	ASTM D 4751	mm (U.S. Sieve)	0.600 (30)	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	70	

NOTE: To obtain Secant Modulus, divide tensile strength by the appropriate strain level (i.e. Secant Modulus at 5% = 3000/0.05 = 60000 lb/ft)

Physical Properties	Test Method	Unit	Typical Value
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	578 (17.1)
Roll Dimensions (length x width)	--	m (ft)	4.8 (15) x 91 (300)
Roll Area	--	m <sup>2</sup> (yd <sup>2</sup> )	418 (500)
Estimated Roll Weight	---	kg (lbs)	242 (534)

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