

PRODUCT GUIDE: GEOTEXTILE & GEOGRID

SOLUTIONS FOR STABILITY



geotextile
& geogrid



GEOTEXTILE & GEOGRID: SOLUTIONS FOR STABILITY

Preserving and protecting the environment while expanding or repairing the world's infrastructure has never been a higher priority. Developers are looking for new ways to stabilize earthen areas and prevent harmful erosion. Performance Fibers' geotextile and geogrid products provide solutions to maintain sensitive environments prior to, during and after construction.

Applications include:

retaining walls; shoreline protection; road construction; residential and commercial construction; sludge containment; landscaping; and drainage and erosion control.

FEATURES AND BENEFITS:

- Low hydrolytic degradation of our geotextile and geogrid products make them well suited for outdoor environments
- Ultraviolet-resistant black spundyed yarns help make for a longer lasting product that is meant specifically for the stress of outdoor applications
- High tenacity, high modulus and low creep properties make for strong, durable products that stand up to the challenge of soil environments, keeping soil and rock in their place

(architectural design)

(commercial&industrial)

(energy)

(environment)

(lifestyle&leisure)

(safety&security)

(transportation)

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Geotextile & Geogrid (Part 1)																								
Product	Features/ Benefits	Color	North America	Europe	Asia	Denier	Dtex	Filament Count	Intermingled	Twisted	Breaking Strength			Tenacity		Elongation @ 54cN/tex	Elongation @ 45N (10 LBS)	Elongation @ break	Thermal Shrinkage 177°C-0.05gpd-2min	Thermal Shrinkage 190°C-0.01gpd-15min	Hot Air Shrinkage 180°C-0.01gpd-15min	Free Shrinkage 177°C-0.01gpd-2min	Hot Air Shrinkage 177°C-zero load-30min	Shrinkage Force 180°C
									(V0)	(T/m)	(lbs)	(kg)	(N)	(g/d)	(cN/dtex)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
730				X		600	660	200	V0		10.8	4.9	48	8.2	7.2	8.0		15.5			13.0			
						750	830	200	V0		13.4	6.1	60	8.0	7.1	8.0		15.0			13.0			
						850	940	200	V0		15.3	6.9	68	8.0	7.1	9.0		15.0			13.0			
						1000	1100	200	V0	VZS100	18.5	8.4	83	8.3	7.4	8.5		14.0			18.0			
						1500	1670	200	V0	VZ60,100	27.2	12.3	121	8.1	7.2	9.0		14.5			18.0			
734				X		500	550	96	V0	VZ60,100,130	8.2	3.7	37	7.4	6.5	5.0		10.5			15.5			
						1000	1100	200	V0	On Request	20.2	9.2	90	9.1	8.0	5.8		11.0			11.0			
						1500	1670	200	V0	On Request	30.3	13.8	135	9.1	8.0	6.7		12.0			11.0			
736		Black		X				1000	1100	64	V0	VZ60,100	18.0	8.2	81	8.0	7.2	8.0			13.5			
785				X		1000	1110	118	V0		20.3	9.2	91	9.0	7.9			13.0	7.0				11.3	
						1100	1220	140	V0		22.3	10.1	99	9.0	7.9			13.0	7.0				11.3	
						1300	1440	100	V0		25.5	11.6	113	8.9	7.8			13.8	5.7				9.5	
						1500	1670	192	V0		29.1	13.2	129	8.8	7.8			15.0	5.5				9.3	
						2000	2220	236	V0		39.4	17.9	175	8.9	7.9			15.3	7.0				11.3	
						2600	2890	384	V0		52.3	23.7	233	9.0	7.9			13.2	8.4				13.2	
789				X		1000	1110	140	V0		22.7	10.3	101	10.0	8.8			10.5	5.3				9.0	
800				X		1000	1100	192	V0		20.0	9.1	89	9.0	7.9		4.9	12.8	8.4				13.2	
1H75	High Tenacity HMLS			X	X	1500	1670	391	V0		29.0	13.2	129	8.6	7.6		4.0	11.0	4.5					
1W78				X	X	1000	1100	192	V0		20.4	9.3	91	9.2	8.1			10.6	4.5	9.1	8.8	7.0		
						2000	2200	384	V0		40.9	18.5	182	9.2	8.1	7.9		10.6	4.5	8.1	8.8	6.2		
						3000	3340	500	V0		61.0	27.7	271	9.2	8.1			10.6	4.5	8.8	8.8	6.9		

V0 = intermingling with no twist

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Geotextile & Geogrid (Part 2)																													
Product	Features/ Benefits	Color	North America	Europe	Asia	Denier	Dtex	Filament Count	Intermingled	Twisted	Breaking Strength			Tenacity		Elongation @ 54cN/tex	Elongation @ 45N (10 LBS)	Elongation @ break	Thermal Shrinkage 177°C-0.05gpd-2min	Thermal Shrinkage 190°C-0.01gpd-15min	Hot Air Shrinkage 180°C-0.01gpd-15min	Free Shrinkage 177°C-0.01gpd-2min	Hot Air Shrinkage 177°C-zero load-30min	Shrinkage Force 180°C					
									(V0)	(T/m)	(lbs)	(kg)	(N)	(g/d)	(cN/dtex)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(cN)				
1P70 (Non-AA)/ 1P73 (AA)	PenTec® Fiber			X		500	550	70	T0		10.1	4.6	45	9.1	8.0	3.5		6.0	6.5		7.0			300					
						1000	1100	140	T0		20.2	9.2	90	9.1	8.0	3.5		6.0	6.5		7.0					560			
						1300	1440	140	T0		26.3	11.9	117	9.1	8.0	3.9		6.0	6.5		7.0							600	
						1500	1670	210	T0		30.3	13.8	135	9.1	8.0	3.5		6.0	6.5		7.0								840
						2000	2200	210	T0		40.5	18.4	180	9.1	8.0	3.9		6.0	6.5		7.0								
1W70 (Non-AA)/ 1W73 (AA)	High Tenacity Standard Yarn			X		2000	2200	192	V0		41.2	18.8	185	9.4	8.3			15.0	8.0										
						1000	1100	192	V0		20.9	9.5	93	9.4	8.3			13.5	8.0										
						X	1300	1440	200	V0		26.9	12.2	120	9.3	8.2			14.0	7.0	17.0	14.8	15.0						
							1500	1670	200	V0		31.3	14.2	139	9.3	8.2			14.0	7.0		14.8							
							2600	2880	400	V0		53.1	24.1	236	9.2	8.1			15.0	6.5	17.0		14.5						
							3000	3340	400	V0		62.1	28.2	276	9.2	8.1			15.0	6.5	17.0		14.5						
							1000	1100	200	V0		21.2	9.6	94	9.4	8.3			14.0	7.0	16.5	14.8	14.5						
2000	2200	400	V0		41.8	19.0	186	9.3	8.2			14.0	7.0	17.0	14.8	15.0													
1X30 (Non-AA)/ 1X33 (AA)	HMLS for Dimensional Stability		X	X	X	1000	1100	300	V0		17.3	7.8	77	7.8	6.9		5.3	10.5	5.0										
						1300	1440	391	V0		22.4	10.2	100	7.8	6.9		4.5	11.0	4.5										
						1500	1670	446	V0		25.3	11.5	113	7.6	6.7		3.9	11.0	5.0										
						2000	2200	600	V0		34.4	15.6	153	7.8	6.9		3.4	11.0	5.0										
1X50 (Non-AA)/ 1X53 (AA)	HMLS for Dimensional Stability		X	X	X	1000	1100	300/391	V0		17.4	7.9	78	7.8	6.9		5.1	10.0	3.0-4.6										
						1300	1440	391	V0		22.4	10.2	100	7.8	6.9		4.3	10.0	2.8-4.5										
						1500	1670	446/546	V0		26.3	11.9	117	7.8	6.9		3.9	10.0	3.0-4.5										
						2000	2200	546/600	V0		34.8	15.8	155	7.8	6.9		3.2	10.3	2.8-4.0										
						3000	3340	892/1092	V0		52.1	23.6	232	7.8	6.9		1.9	10.7	3.0-4.0										

AA = adhesive activated; V0 = intermingling with no twist; T0 = no twist, no intermingling

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