

CIVIL NONWOVEN GEOTEXTILES - C SERIES



Texel's C Series needled nonwoven geotextiles are specifically designed for civil engineering applications that require maximum mechanical resistance as well as an excellent control of hydraulic properties. These geotextiles were developed expressly for specialized roads and transportation applications.

Manufactured from 100% short polypropylene fibers, the geotextiles of the **C series** offer excellent resistance to UV rays, to natural decomposition, as well as to chemical and biological elements generally found in the soil. The choice of raw materials and quality control upon receipt, before manufacturing, guarantee a lifespan exceeding industry standards. Modern manufacturing processes and the quality assurance program implemented in our production facilities guarantee the uniformity, the dimensional stability, and the performance of the product in the most demanding applications.

PROPERTY	UNIT	TEST METHOD	TEXEL031C	TEXEL035C	TEXEL038C	TEXEL040C	TEXEL045C	TEXEL055C	TEXEL060C	TEXEL070C	TEXEL080C	TEXEL100C	TEXEL120C	TEXEL160C													
MECHANICAL																											
Tensile Strength	lbs (N)	ASTM D4632	80	350	90	401	95	420	100	445	120	533	135	600	160	712	180	800	205	911	250	1110	300	1330	380	1690	
Trapezoid Tear	lbs (N)	ASTM D4533	30	130	38	170	40	180	45	200	50	222	55	245	60	267	75	333	80	356	100	444	115	511	145	644	
Elongation	%	ASTM D4632	50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-150		
CBR Puncture	lbs (N)	ASTM D6241	175	934	265	1180	270	1200	300	1320	340	1510	380	1690	410	1820	475	2110	535	2380	700	3110	850	3780	1080	4820	
U.V. Resistance	% retained / h	ASTM D4355	70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		
HYDRAULIC																											
Permittivity*	sec ⁻¹	ASTM D4491	2,20		2,00		2,00		2,00		1,70		1,60		1,50		1,40		1,35		1,20		1,0		0,70		
Water Flow Rate*	Gpm / ft ² (l / min / m ²)	ASTM D4491	150	6095	150	6095	142	5800	140	5689	120	4885	115	4600	110	4480	100	4074	90	3657	80	3251	75	3055	50	2035	
Apparent Opening Size (AOS)*	U.S. Sieve (mm)	ASTM D4751	50	0,300	50	0,300	50	0,300	70	0,212	70	0,212	70	0,212	70	0,212	70	0,212	80	0,180	100	0,150	100	0,150	100	0,150	
TYPICAL ROLLS DIMENSIONS AND PACKAGING																											
Roll Dimensions (width)	Ft (m)		12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25	12.5/15/17.2 3.81/4.57/5.25		
Roll Dimensions (length)	Ft (m)		300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4	300/300/300 91,4/91,4/91,4		
Roll Area	yd ² (m ²)		417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480	417/500/573 348/418/480		
Estimated Roll Weight	Lb (kg)		Refer to loading chart for estimated roll weight																								
Estimated Diameter	In (cm)		Refer to loading chart for estimated roll diameter																								
3 Pack			yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / yes	yes / yes / no	yes / yes / no	yes / yes / no	yes / yes / no	yes / yes / no	yes / yes / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no

NOTES

- Physical and hydraulic properties reported as minimum average roll values (MARV).
- Property values are subject to change without notice.
- * At the time of manufacturing, handling may change these properties.
- AOS reported as maximum average roll value.
- Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics.
- Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241.

ENVIRONMENTAL NONWOVEN GEOTEXTILES - E SERIES



Texel's E Series needled non-woven geotextiles are specifically designed for civil engineering applications that require maximum protection performance as well as an excellent control of mechanical properties. These geotextiles were developed expressly for specialized environmental and geomembrane protection applications.

Manufactured from 100% short polypropylene fibers, the geotextiles of the **E series** offer excellent resistance to UV rays, to natural decomposition, as well as to chemical and biological elements generally found in the soil. The choice of raw materials and quality control upon receipt, before manufacturing, guarantee a lifespan exceeding industry standards. Modern manufacturing processes and the quality assurance program implemented in our production facilities guarantee the uniformity, the dimensional stability, and the performance of the product in the most demanding applications.

PROPERTY	UNIT	ASTM TEST METHOD	TEXEL060E	TEXEL080E	TEXEL100E	TEXEL120E	TEXEL140E	TEXEL160E	TEXEL200E	TEXEL240E	TEXEL280E	TEXEL320E	TEXEL430E													
PHYSICAL																										
Minimum Weight	oz/yd ² (g/m ²)	ASTM D5261	6	203	8	271	10	339	12	407	14	475	16	542	20	675	24	810	28	950	32	1080	43	1460		
Thickness*	mils (mm)	ASTM D5199	65	1,70	90	2,3	105	2,70	120	3,00	135	3,40	160	4,00	150	3,80	165	4,20	181	4,60	197	5,00	217	5,50		
MECHANICAL																										
Tensile Strength	lbs (N)	ASTM D4632	160	712	220	979	270	1200	330	1470	390	1730	425	1891	445	1980	495	2225	544	2420	593	2640	742	3300		
Trapezoid Tear	lbs (N)	ASTM D4533	65	289	90	400	100	444	125	556	135	600	150	667	180	800	205	910	227	1010	247	1100	303	1350		
Elongation	%	ASTM D4632	50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105		50-105			
CBR Puncture	lbs (N)	ASTM D6241	450	2000	600	2670	725	3220	900	4000	1045	4650	1200	5340	1394	6200	1607	7150	1798	8000	1978	8800	2136	9500		
U.V. Resistance	% retained / h	ASTM D4355	70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500		70/500			
HYDRAULIC																										
Permittivity*	sec ⁻¹	ASTM D4491	1,60		1,26		0,94		0,90		0,64		0,57		N.A.		0,40		N.A.		N.A.		N.A.			
Permeability*	cm / sec	ASTM D4491	0,30		0,30		0,30		0,30		0,25		0,25		N.A.		N.A.		N.A.		N.A.		N.A.			
Water Flow Rate*	Gpm / ft ² (l / min / m ²)	ASTM D4491	125	5080	100	4074	75	3055	60	2544	50	2037	45	1833	N.A.	N.A.	25	1019	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
Apparent Opening Size (AOS)*	U.S. Sieve (mm)	ASTM D4751	70	0,212	80	0,180	100	0,150	100	0,150	100	0,150	100	0,150	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.		
TYPICAL ROLLS DIMENSIONS AND PACKAGING																										
Roll Dimensions (width)	Ft (m)		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25		12.5/15/17.2 3.81/4.57/5.25			
Roll Dimensions (length)	Ft (m)		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4		300/300/300 91,4/91,4/91,4	
Roll Area	yd ² (m ²)		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480		417/500/573 348/418/480	
Estimated Roll Weight	Lb (kg)		Refer to loading chart for estimated roll weight																							
Estimated Diameter	In (cm)		Refer to loading chart for estimated roll diameter																							
3 Pack			no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	no / no / no	
NOTES																										
<ol style="list-style-type: none"> 1. Physical and hydraulic properties reported as minimum average roll values (MARV). 2. Property values are subject to change without notice. 3. * At the time of manufacturing, handling may change these properties. 4. AOS reported as maximum average roll value. 5. Mullen Burst ASTM D3786 removed. Not recognized by ASTM D35 on Geosynthetics. 6. Puncture ASTM D4833 is not recognized by AASHTO M288 and has been replaced with CBR Puncture ASTM D6241. 																										
Texel reserves the right to modify existing properties contingent on the evolution of technical knowledge. Each user is invited to verify if this document represents the most recent update.														REVISION: 2014-07-01												