

# TECHNICAL DATA SHEET

## TEXEL GEO-9 R1 / TEXEL GEO-9 R2

<b>Product</b>	Reinforced needlepunched nonwoven
<b>Composition</b>	Polypropylene / Polyester
<b>Main function</b>	(R) Reinforcement

Property	Test Method	CVMS <sup>(1)</sup>	SYM <sup>(2)</sup>	Texel GEO-9 R1	Texel GEO-9 R2
MTQ / BNQ grade				R1	R2
<b>Physical</b>					
Thickness	ASTM D5261	-	-	250 g/m <sup>2</sup>   7.4 oz/yd <sup>2</sup>	325 g/m <sup>2</sup>   10 oz/yd <sup>2</sup>
Weight	ASTM D5199	-	-	-	1.50 mm   60 mils
<b>Durability</b>					
UV resistance (500 hours)	ASTM D4355	-	≥	50%	
<b>Mechanical</b>					
Wide width tensile strength	ASTM D4595	<5%	≥	13 kN/m   890 lb/ft	
		5-10%	≥	13.65 kN/m   935 lb/ft	
		10-15%	≥	14.3 kNm   980 lb/ft	
Wide width tensile strength @ 5%	ASTM D4595	< 5%	≥	5 kN/m   343 lb/ft	
		5-10%	≥	5.78 kN/m   396 lb/ft	
		10-15%	≥	6.05 kN/m   415 lb/ft	
Wide width tensile strength @ 10% <sup>(3)</sup>	ASTM D4595	-	-	-	10 kN/m   685 lb/ft
Elongation at break	ASTM D4595	-	<	30%	
CBR puncture	ASTM D6241	-	≥	2300 N   517 lb	
<b>Hydraulic</b>					
Transmissivity	ASTM D6574	-	≥	10-7 m <sup>2</sup> /s	
Permittivity	ASTM D4491	-	2	0.05 s-1	
FOS	CAN 148.1 No.10	-	(4)	45 - 150 μm	45 - 70 μm
<b>Dimensions</b>					
Width <sup>(3)</sup>	-	-	-	3.81 m - 4 m   12.5 ft - 13.1 ft	
Length <sup>(3)</sup>	-	-	-	100 m   328.1 ft	

The Texel Geo-9 R1 and Geo-9 R2 meet MTQ requirements and are certified by the BNQ according to BNQ7009-210 for grade R1 (Geo-9 R1) and R2 (Geo-9 R2) referred to in Table 1 - Geotextile Characteristics. Note that for optimized performance, some mechanical and hydraulic values of Geo-9 are more severe than the MTQ/BNQ requirements. \*Geo-9 R2 also meets the requirements associated with standard geotextile grade R1. For other MTQ/BNQ grades, consult the data sheet for the 76 and 900 series.

**Please note that this technical data sheet is updated to take into account the new MTQ/BNQ requirements and the transfer of test methods to ASTM** (American Society for Testing and Materials) standards instead of CGSB (Canadian General Standards Board) standards.

With the exception of the FOS test method (CAN 148.1 No.10), ASTM test methods are now used, as the CGSB no longer provides updates for these standards.

Our quality management system is certified by the ISO-9001 standard.

Our internal laboratory is certified by the Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP).

Properties are based on the minimum average value per roll (MARV) except for MTQ/BNQ products which are minimums, maximums or intervals.

1- The required wide width tensile strength and wide width tensile strength at 5% of elongation varies according to the established CVMS (Coefficient of Variation of Mass per Unit Area) range. When the CVMS is between 5 and 10%, the tensile strength value must be increased by at least 5% and when the CVMS is between 10 and 15% it is increased by at least 10%. / 2 - Symbol for the MTQ/BNQ / 3 - Properties not included in the certification to the BNQ 7009-210 specification. / 4 - Interval

Informative values for Geo-9 R2: Friction efficiency at the GEO-9/MG-20 interface: 95%. Delamination resistance of the geocomposite: >500 N/m machine direction according to ASTM D7005. Particular attention must be given to storage conditions and handling to avoid any alteration of certain properties.

Geo-9 R1 and Geo-9 R2, are manufactured by Texel Matériaux Techniques Inc.

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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. Texel offers no guarantee and assumes no responsibility regarding usage, installation and/or convenience of usage. Texel must be informed of all product nonconformity prior to installation. Responsibility is limited to replacement of non-compliant or defective product.