



CSI N40

PRODUCT DATA SHEET

CSI N40 is a needle-punched nonwoven geotextile made of polypropylene staple fibers, and will meet the following Minimum Average Roll Values when tested in accordance with the methods listed below. The fibers are needed to form a stable network for dimensional stability. The geotextile resists ultraviolet deterioration, rotting, biological degradation, naturally encountered alkalis and acids.

Specifications for CSI N40 Non-woven conforms to the following property values:

Mechanical Properties	TEST METHOD	UNIT	Minimum Average Roll value
Grab Tensile Strength (MD) / (CD)	ASTM D-4632	kN (lbs)	0.62 (140) / 0.70 (159)
Grab Elongation (MD) / (CD)	ASTM D-4632	%	60% / 60%
Trapezoid Tear Strength (MD) / (CD)	ASTM D-4533	kN (lbs)	0.25 (56) / 0.29 (65)
Mullen Burst Strength	ASTM D-3786	kPa(psi)	1850 (268)
Puncture strength	ASTM D-4833	kN (lbs)	0.34 (77)
Apparent Opening Size(AOS)	ASTM 0-4751	mm (US Sieve)	0.212 (70)
Permittivity	ASTM D-4491	sec ⁻¹	2
Permeability	ASTM D-4491	cm/sec	0.1
Flow Rate	ASTM D-4491	1/min/m ² (gal/min/ft ²)	100 (22)
UV Resistance (at 500 hours)	ASTM D-4355	% strength retained	70

Physical Properties	Test method	Unit	Typical Value
Weight	ASTM D-5261	g/m ² (oz/yd ²)	179 (5.2)
Thickness	ASTM D-5199	mm(miles)	1.2 (48)
Roll Dimension(width x length)		m (ft)	4.57x109.7 (15x360)
Roll Area	..	m ² (yd ²)	501 (600)
Estimated Roll Weight	..	kg (lb)	90.18 (198.75)

The above values are effective 02/11/2011. All values have -10% tolerances except elongations, water permeability and AOS which are +/-30% tolerances. The information given in this data sheet is based on tests conducted at Essen Polymer, Inc's in-house laboratory and independent accredited laboratories. While the information is presented as a true and accurate representation of the attributes of the products to the best of our knowledge, no expressed or implied warranties are made and Essen Polymers, Inc. assumes no responsibility or liability with regard to the use of this information. The right to make periodic revisions of the specifications without prior notice is reserved.

Note: CSI fabrics are manufactured and imported for CSI Geosynthetics by Essen Polymer, Inc., Carson, Ca. CSI N40 is a trade name of CSI Geosynthetics, and any use of this name without the expressed written consent for CSI Geosynthetics is strictly prohibited. The property values listed above are effective 02/10/2011 and subject to change without notice.

This publication should not be construed as engineering advice. While information contained in this publication is accurate to the best of our knowledge, CSI Geosynthetics does not warrant its accuracy or completeness. The ultimate customer and user of the products should assume sole responsibility for the final determination of the suitability of the information and the products for the contemplated and actual use. The only warranty made by CSI Geosynthetics for its products is set forth in our product data sheets for the product, or such other written warranty as may be agreed by CSI Geosynthetics and individual customers. CSI Geosynthetics specifically disclaims all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or arising from provision of samples, a course of dealing or usage of trade.