

**Geosin**<sup>®</sup>

The present standard establishes the technical conditions, environmental requirements, sampling conditions, storage conditions, as well as other explanation necessary for the realization of **Geosin** nonwoven geotextiles obtained from polypropilene fibers.



## **APLICATION DOMAIN**

The product has aplication in the domain of civil and industrial engineering, construction of roads and other trafficked areas, earthworks, foundations and retaining structures, erosion control works (coastal protections, bank revetments), constructions of canals, solid waste disposal, construction of railways, drainage systems, construction of reservoires and dams, construction of tunnels and underground structures, liquid waste cantainment projects.

## SHIPPING AND STORAGE REQUIREMENTS

The material shall be transported by clean, covered means of transportation, protected from moisture and dirt. The material shall be stored in closed spaces, protected from UV, away from water, steam and other types of pipes. **TECHNICAL QUALITY CONDITIONS** 

GEOSIN deptextiles must accomplish the quality conditions from the table below:

Properties	Unit	Standard	Scheduled values and accepted tolerances											
Mass	gr/m <sup>2</sup>	EN 965:1995	100 <sup>±10%</sup>	130 <sup>±10%</sup>	150 <sup>±10%</sup>	200 <sup>±10%</sup>	250 <sup>±10%</sup>	300 <sup>±10%</sup>	400 <sup>±10%</sup>	500 <sup>±10%</sup>	600 <sup>±10%</sup>	800 <sup><u>+</u>10%</sup>	1000 <sup>±10%</sup>	1100 <sup>±10%</sup>
Thickness under the load of 2 kN/m <sup>2</sup>	mm	EN 964-1:1995	2.1 <sup>±0.2</sup>	2.3 <sup>±0.2</sup>	2.4 <sup>±0.2</sup>	2.8 <sup>±0.2</sup>	3.2 <sup><u>+</u>0.3</sup>	4.8 <sup>±0.4</sup>	5.0 <sup><u>+</u>0.4</sup>	5.8 <sup>±0.5</sup>	6.0 <sup>±0.6</sup>	7.0 <sup>±07</sup>	7.8 <sup>±0.7</sup>	8.1 <sup><u>+</u>0.8</sup>
Thickness under the load of 20 kN/m <sup>2</sup>	mm	EN 964-1:1995	1.1 <sup>±0.2</sup>	1.2 <sup>±0.2</sup>	1.4 <sup>±0.2</sup>	1.6 <sup>±0.2</sup>	2.0 <sup>±0.3</sup>	3.2 <sup><u>+</u>0.4</sup>	4.0 <sup>±0.4</sup>	4.9 <sup>±0.5</sup>	5.0 <sup><u>+</u>0.6</sup>	6.0 <sup>±0.7</sup>	6.8 <sup>±0.7</sup>	7.1 <sup>±0.8</sup>
Tensile strength, longitudinal min.	kN/m	SR ISO 10319:1997	3 <sup>-1</sup>	5 <sup>-1</sup>	7 <sup>-1</sup>	10 <sup>-1</sup>	12 <sup>-2</sup>	16 <sup>-2</sup>	20 <sup>-2</sup>	25 <sup>-3</sup>	31 <sup>-3</sup>	40 <sup>-3</sup>	45 <sup>-3</sup>	50 <sup>-5</sup>
Tensile strength, transversal min.	kN/m	SR ISO 10319:1997	6 <sup>-1</sup>	12 <sup>-1</sup>	15 <sup>-1</sup>	22 <sup>-2</sup>	26 <sup>-3</sup>	31 <sup>-3</sup>	40 <sup>-4</sup>	47 <sup>-5</sup>	55 <sup>-6</sup>	75 <sup>-6</sup>	90 <sup>-6</sup>	100 <sup>-10</sup>
Elongation at break, longitudinal	%	SR ISO 10319:1997	100 <sup><u>+</u>20</sup>	80 <sup><u>+</u>20</sup>	80 <sup>±20</sup>	80 <sup>±20</sup>	80 <sup><u>+</u>20</sup>	80 <sup><u>+</u>20</sup>	80 <sup>±20</sup>	80 <sup>±20</sup>	80 <sup><u>+</u>20</sup>	80 <sup><u>+</u>20</sup>	80 <sup><u>+</u>20</sup>	100 <sup><u>+</u>20</sup>
Elongation at break, transversal	%	SR ISO 10319:1997	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup>±20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup>±20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>	60 <sup><u>+</u>20</sup>
CBR puncture rezistance	N	SR EN ISO 12236:07	900 <sup>-200</sup>	1300 <sup>-130</sup>	1600 <sup>-170</sup>	2300 <sup>-230</sup>	2800 <sup>-300</sup>	3500 <sup>-300</sup>	4700 <sup>-500</sup>	5700 <sup>-600</sup>	6500 <sup>-700</sup>	8500 <sup>-800</sup>	10000 <sup>-800</sup>	13000-1300
Hydric properties														
Properties	Unitate	Standard	Scheduled values and accepted tolerances											
V-Index at 20°C	mm/s	SR EN ISO 11058: 02	170 <sup><u>+</u>20</sup>	115 <sup><u>+</u>20</sup>	105 <sup><u>+</u>20</sup>	100 <sup><u>+</u>20</sup>	90 <sup>±20</sup>	75 <sup><u>+</u>20</sup>	60 <sup>±10</sup>	45 <sup>±10</sup>	40 <sup>±10</sup>	28 <sup>±5</sup>	22 <sup><u>+</u>5</sup>	18 <sup>±5</sup>
Water flow rate normal to plane	l/m² s	SR EN ISO 11058: 02	170 <sup><u>+</u>20</sup>	115 <sup><u>+</u>20</sup>	105 <sup><u>+</u>20</sup>	100 <sup><u>+</u>20</sup>	90 <sup>±20</sup>	75 <sup><u>+</u>20</sup>	60 <sup>±10</sup>	45 <sup>±10</sup>	40 <sup>±10</sup>	28 <sup><u>+</u>5</sup>	22 <sup><u>+</u>5</sup>	18 <sup>±5</sup>
Opening size Φ90	microns	EN ISO 12956:1999	250 <sup>±20</sup>	250 <sup>±20</sup>	200 <sup><u>+</u>20</sup>	180 <sup><u>+</u>20</sup>	150 <sup><u>+</u>20</sup>	120 <sup><u>+</u>20</sup>	90 <sup>±10</sup>	80 <sup>±20</sup>	70 <sup><u>+</u>20</sup>	70 <sup>±20</sup>	70 <sup><u>+</u>20</sup>	70 <sup>±20</sup>
Permeability k-Index at 20°C	m x10 <sup>-3</sup> /s	SR EN ISO 11058: 02	9.0 <sup>-0.8</sup>	7.9 <sup>-0.7</sup>	7.4 <sup>-0.7</sup>	8.0 <sup>-0.7</sup>	7.7 <sup>-0.7</sup>	7.1 <sup>-0.7</sup>	6.4 <sup>-0.6</sup>	5.8 <sup>-0.6</sup>	5.2 <sup>-0.5</sup>	4.6 <sup>-0.4</sup>	4.0 <sup>-0.4</sup>	<b>3</b> .4 <sup>-0.4</sup>
Permeability k-Index at 10°C	m x10 <sup>-3</sup> /s	SR EN ISO 11058: 02	6.9 <sup>-0.8</sup>	6.1 <sup>-0.7</sup>	5.7 <sup>-0.7</sup>	6.2 <sup>-0.7</sup>	5.9 <sup>-0.7</sup>	5.5 <sup>-0.7</sup>	5.0 <sup>-0.6</sup>	4.5 <sup>-0.6</sup>	4.0 <sup>-0.5</sup>	3.5 <sup>-0.4</sup>	3.1 <sup>-0.4</sup>	<b>2.6</b> <sup>-0.4</sup>
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## SAMPLING, PACKAGING, STORAGE AND DELIVERY PACKAGE

Each lot shall contain a declaration of conformity and other documents, according to the laws in force. Each roll shall be sampled in a visible place with a label containing: the name of the provider, article name, product width (m), roll length (m), operator number, shift, technical control quality visa (QC visa), production date, weight (kg). Given the way in which it was obtained and in which it is used, this article does not affect life protection, work protection, and security. Therefore, a certificate issued by a neuter institution authorized in the domain is not necessary. ENVIROMENTAL AND INSTALLING RECUIREMENTS

To be covered within 24 hours from instalation. The supposed durability is of minimum 20 years, for other aplications except reinforcement, in natural soils with 4<pH<9 and a temperature of <25<sup>o</sup> C. **PRODUCT RECEIPT** 

The term of acceptance and of formulating eventual complaints is within 5 days after receipt of the wares.

We are not liable for eventual damages caused by the incorect putting into work of the geotextile or if the beneficiary uses a geotextile inadequate for the purpose of the work. We reserve the right to modify the technical data without prior notice.

## www.geotextile.ro

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