Terram – Thermally Bonded Nonwovens

TERRAM
Geosynthetics

data

Product Grades		500	700	900	1000	1300	1500	2000	3000	4000
Mechanical Properties – control										
Wide width strip tensile										
EN ISO 10319										
- Mean peak strength	kN/m	3.0	6.0	7.5	8.0	10.5	12.5	14.5	18.0	22.0
- Elongation										
at peak strength	%	35	25	28	28	28	30	30	33	33
CBR puncture resistance										
EN ISO 12236										
- Mean peak strength	N	525	1050	1350	1500	2000	2250	2750	3250	4300
Trapezoidal tear resistance										
ASTM D4533										
- Mean peak strength	N	175	225	275	300	425	475	575	700	900
Mechanical Properties - consequential										
Wide width strip tensile										
EN ISO 10319										
- strength at 5% strain	kN/m	1.3	2.6	3.2	3.4	4.3	4.7	5.5	6.3	7.5
Hydraulic Properties - consequential										
Pore size										
EN ISO 12956										
- Mean AOS O_{90}	μm	300	180	160	150	130	125	110	100	85
Permeability										
EN ISO 11058										
- VI_{H50}										
- 5cm head	$10^{-3}m.s^{-1}(l/m^2.s)$	150	130	105	100	80	75	65	55	45
Physical Properties - typical										
Mass per unit area EN 965	g/m^2	65	90	115	125	160	180	215	260	335
Roll width	m	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Roll length	m	200	150	150	100	100	100	100	100	50
Roll weight	kg	65	65	85	65	80	90	105	125	80

Terram Ltd
Mamhilad, Pontypool
Gwent NP4 0YR, United Kingdom
Tel: +44 (0) 1495 757 722
Fax: +44 (0) 1495 762 393
Email: info@terram.co.uk
Web: www.terram.com

Certificate No: FM 22730

Property Description

Control Properties

Control properties are those properties that are statistically controlled during manufacture of the product. The results quoted are the family means of the appropriate tests derived over periods of time. Other statistical parameters are available on request.

Consequential Properties

Consequential properties are those properties which arise as a consequence of the manufacturing process. Furthermore, the test methods used to evaluate these properties do not have the required level of reproducibility to be used as control tests. The result quoted are the family means of the appropriate tests derived over periods of time.

Typical Properties

Typical properties are family means of the appropriate tests derived over periods of time.

Composition and Environmental Behaviour

Composition

70% polypropylene / 30% polyethylene.

Chemical Resistance

Alkali - Resistant to all naturally occurring soil alkalis.
Acid - Resistant to all naturally occurring soil acids, (i.e. to acids of pH≥ 2).

Biological Resistance

Terram is unaffected by bacteria, fungi, etc. Since it is not a source of nourishment, rats and termites will not eat the product as food.

Reaction to Temperature

The tensile strength of Terram decreases with increase in temperature, but recovers fully when the geotextile is returned to normal ambient temperature.

Exposure to Sunlight

Terram is delivered in coloured polyethylene wrappers to protect it from the harmful effects of ultra-violet rays: it is recommended that it remains wrapped until it is to be used.

In most applications geotextiles are exposed to direct sunlight for only short periods during installation; the degree to which they resist the effects of UV light is, therefore, of no significance.

For projects where prolonged exposure is inevitable Terram Ltd offers special Terram grades with UV resistance to match the requirement. In these grades the UV light resistance is enhanced by appropriate stabilisers in the polymers, so that they retain over 50% of their original strength after exposure to 70,000 Langleys of solar radiation. All other properties are identical to the corresponding standard series Terram presented in the data sheet. Terram products with enhanced UV resistance carry the suffix UV (e.g. Terram 1000 UV).

Notes

1 The mean tensile strength and tear resistance values quoted are the mean values of either the length or cross directions, whichever is the lower.

2 For a full description of the test procedures quoted please refer to the specific methods of test.

3 Where widths or lengths greater than those supplied on one roll are required, jointing is normally effected by simple overlapping. However, depending upon application, subgrade conditions, material loading, convenience and cost, alternative methods (pegging, sewing, stapling or gluing) may be used. Please refer to the Terram Jointing Methods leaflet for more details.

4 As part of its continual improvement process Terram Ltd reserve the right to change the properties listed on this data sheet without prior notice.