IMPERIAL OVERSEAS
AN ISO 9001: 2008 COMPANY

NON WOVEN GEO TEXTILE

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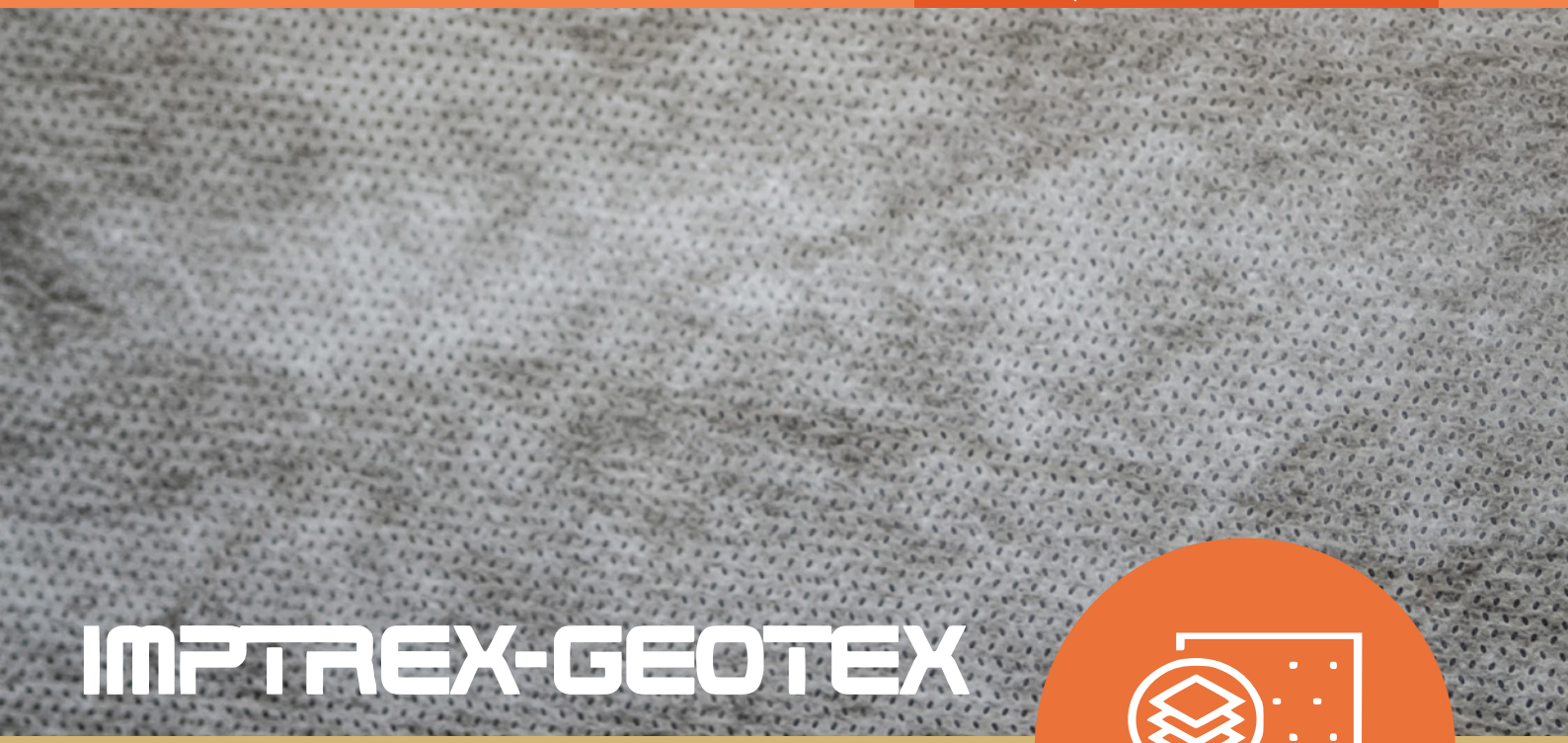

IMPTREX-GEOTEX

PRODUCT NAME
SUPERIOR NEEDLE PUNCHED NONWOVEN GEOTEXTILES

DESCRIPTION
IMPTREX GEOTEX Geotextile made from staple fibres that are mechanically bonded by a needle punching process to produce a dimensionally stable network. The fibres used are 100% virgin white Polypropylene, ultra-violet resistant with 165°C melting point.

APPLICATIONS
IMPTREX GEOTEX Geotextiles are used in road and railway soil stabilization, waterways and seashore erosion control, asphalt pavement overlay crack relief, subsurface drainage systems, waterproofing membrane protection, landfill, landscaping etc.

- Separation between two dissimilar materials so that the integrity and functioning of both materials can remain intact or be improved.
- Filtration by permitting water flow across the plane of the geotextile while retaining fine soil particles.
- Transmission by providing water drainage and gas venting within the plane of the geotextile.
- Sealing when impregnated with asphalt or resin to act as a moisture barrier.
- Stress Absorption in pavement overlay when impregnated with asphalt.
- Protection of geo-membrane against puncture by absorbing the point stresses.

FEATURES

1. Hydraulic Properties include opening size, permeability and transmissivity. For optimum filtration, the geotextile is required to meet two seemingly conflicting requirements: the geotextile pore spaces must be small enough to retain soil particles while also being large enough to permit relatively impeded water flow.

IMPTREX Geotextiles meet this requirement and have exceptionally high filtration properties due to the needle punching process, which produces a large number of small holes in the fabric structure. This process provides IMPTREX with superior filtration properties, offering a unique combination of high permeability that allows unimpeded flow of water across the fabric whilst maintaining a low opening size to retain the finest soil particles without becoming clogged over time.

2. Survivability Properties refer to the ability of the geotextile to withstand the installation stresses and to perform as intended in the design. The survivability properties include puncture resistance, dynamic puncture, CBR puncture and Mullen burst strengths. IMPTREX Geotextile, due to their high elongation property, is inherently more resistant to installation damage than stiff low elongation fabrics.

The high elongation property of IMPTREX Geotextile allows the fabric to adapt to the uneven contour of the matrix and absorb the installation stresses, unlike stiff geotextile fabrics with low elongation that tend to carry the installation loads and hence are required to meet a set of higher strength values compared to high elongation geotextiles. The geotextile fabric, in the tensile, grab and trapezoidal tear tests, is stressed in a linear direction along its plane, and hence these index test values need necessarily be considered in conjunction with elongation values.

IMPTREX GEOTEX Geotextiles are non-biodegradable, and have excellent resistance to chemicals and salts normally present in the soil.

EXPOSURE TO SUNLIGHT

Test Method	AASHTO Specification	IMPTREX
ASTM D 4355	>50% strength at 500 hours	>60% strength at 500 hours

PRODUCT RANGE

IMPTREX GEOTEX standard Polypropylene Geotextiles products indicated in this data sheet comes with a variety of grades between 100 g/m2 and 1000 g/m2. IMPTREX Geotextile rolls are delivered in PE wrap for protection against ultra-violet rays during transit and storage.

TECHNICAL RANGE

Test	Standard	Unit	IG 100	IG 120	IG 140	IG 180	IG 200	IG 300	IG 400	IG500	IG 600
Tensile Strength MD/CD	EN ISO 10319	kN/m	6	8	9.4	12.5	14	22	30	37	42
Elongation MD/CD	EN ISO 10319	%	40/55	40/55	40/55	45/55	45/55	50/55	50/55	60/65	60/65
CBR Puncture	EN ISO 12236	N	1085	1400	1630	2100	2500	4000	5000	5200	7000
Dynamic cone drop	EN ISO 13433	mm	30	28	24	20	18	12	9	5	4
Grab strength MD/CD	ASTM D 4632	N	400	500	590	760	960	1400	1800	2300	2600
Grab Elongation MD/CD	ASTM D 4632	%	70/75	70/75	70/75	70/75	70/75	70/75	70/75	70/75	70/75
Puncture strength	ASTM D 4833	N	220	270	320	450	500	750	900	1000	1075
Mullen Burst	ASTM D 3786	Psi	170	210	255	325	375	580	700	800	865
Trapezoidal tear strength	ASTM D 4533	N	200	265	290	370	475	600	650	850	1020
Permeability	EN ISO 11058	$m/s.10^{-3}$	116	110	102	95	80	60	50	40	33
Water flow in plane 20kpa	EN ISO 12958	m^2/s	1x10 -7	1x10 -7	1x10 -7	1x10 -7	2x10-7	3x10-6	1x10 -5	6x10-6	7x10-6
Apparent Opening size	EN ISO 12956	µ	125	120	115	100	100	90	80	72	68
Permeability	ASTM D 4491	l/m^2s	135	130	120	100	85	75	50	40	33
Apparent Opening size	ASTM D 4751	µ	190	180	170	140	110	80	65	60	60
Thickness under 2kpa	EN ISO 9863	mm	1	1.2	1.4	1.65	1.8	2.4	3	3.5	4
Thickness under 2kpa	ASTM D 5199	mm	1	1.2	1.4	1.65	1.8	2.4	3	3.5	4
Natural UV	ASTM D 4355	%	75	75	75	75	75	75	75	75	75
Roll Size		sqm	2x200m	2x200m	2x200m	2x100m	2x100m	2x100m	2x50m	2x50m	2x50m

Durability	
Chemical Resistance	100%
Oxidation Resistance	>90%
Microbiological Resistance	100%
Hydrolysis	100%

Product Description	
Polymer	100% Polypropylene
Density	0.91 kg/dm^3
Melting Point	165 °C
Fiber Bonding	Mechanical

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