

TUSCO'S POLYESTER SPUNBOND

A leading spunbond manufacturer in Thailand



TUSCO

TEIJIN UNITIKA SPUNBOND (THAILAND) CO.,LTD.

The Characteristics of TUSCO's Spunbond for Geotextile

TUSCO's spunbond is a nonwoven made of polyester countinuous filaments which utilized proprietary technology developed by UNITIKA, biggest Japan-based spunbonded polyester manufacturer. TUSCO's spunbond has a high mechanical strength, excellent durability, and good separation effect between soil and water. The characteristics come from unique structure of spunbonded nonwoven made of continuous filaments. We can offer the width of geotextiles up to 4.2 meters, appropriate roll length.

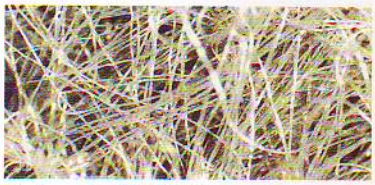
Effects of TUSCO's Polyester Spunbond

1. **Separation** : Entire separation between upper and lower layer in installing our spunbond.
2. **Drainage** : Excellent drainage of water in both horizontal and vertical direction, due to the unique characteristics of TUSCO's spunbond.
3. **Filtration** : Water permeability (more than 10^{-2}) equivalant to sand in both horizontal and vertical direction. No clogging under the normal conditions.
4. **Reinforcement** : Construction of stable soil structure due to its flexibility and a high abrasion coefficient.

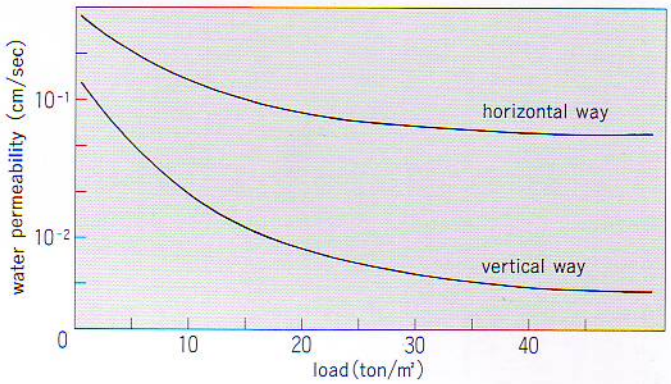
Some Technical Data

1. Filtration

Filtration characteristics to drain water only with the employment of filtering effect of TUSCO's spunbond, which filaments are dispersed at random.

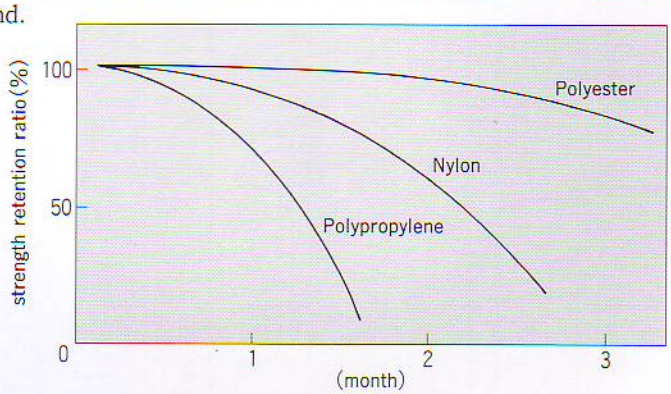


Photograph of TUSCO's spunbond through an electron microscope.



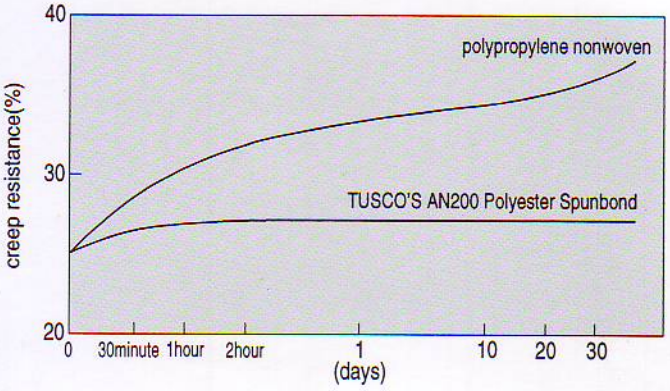
2. Durability

Good durability against weather and temperature variations, compared with other materials. Good stability under the various circumstances both in the water and in the ground.



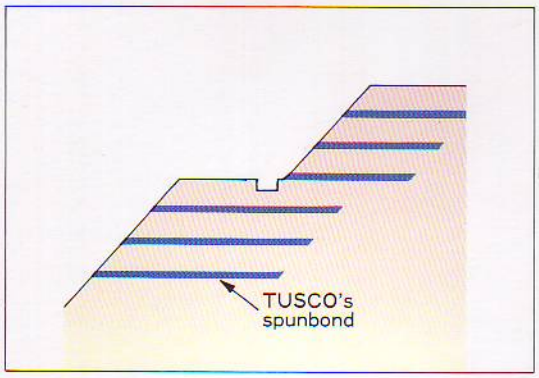
3. Creep Resistance

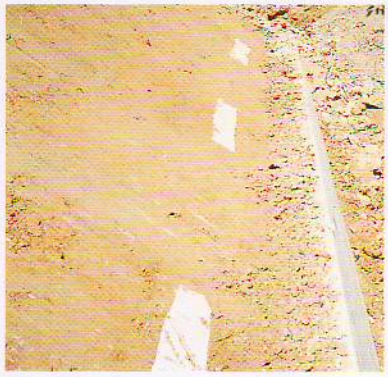
High creep resistance under a certain load and period, compared with other materials.



Horizontal Drainage

With the special water permeability peculiar to continuous filament structure, it can drain water only in both horizontal and vertical direction. It is the drainage material which has filtration effect to separate fine soil.



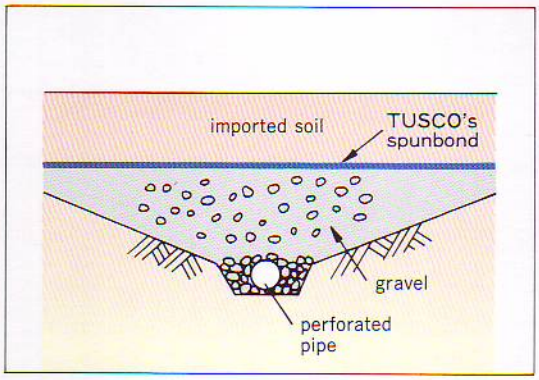


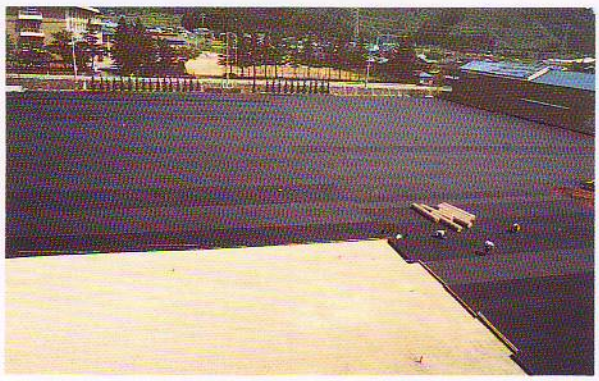


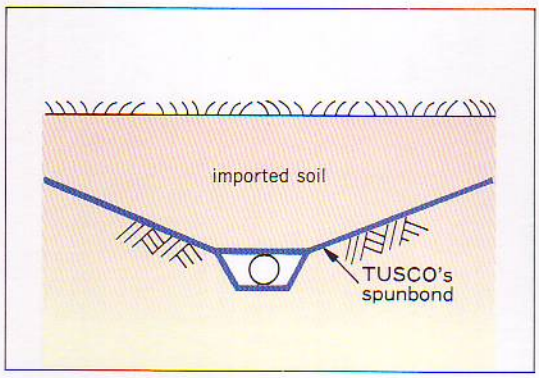
Application :

(1) Prompt drainage of aperture water flow and penetration water flow inside embankment.

(2) Improvement of stress distribution and reinforcement of slope as a result of installation of geotextiles.





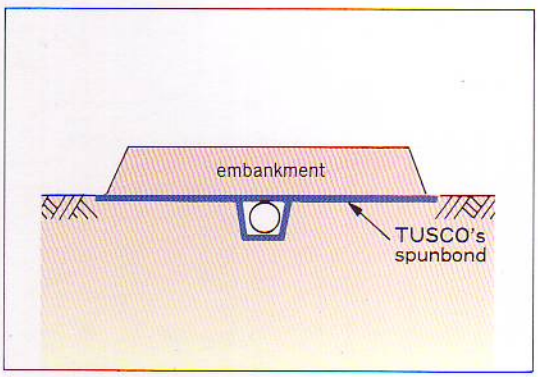




Application :

(1) Stabilization of imported soil as a result of separating soil layers.

(2) Prompt drainage of water flow in horizontal direction.



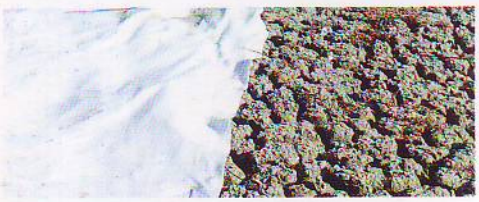


Application :

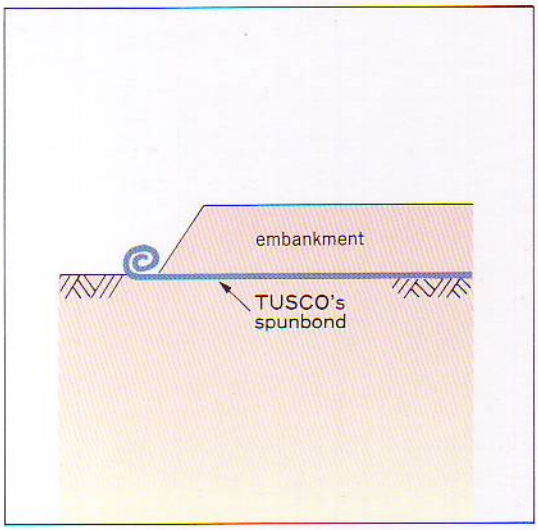
(1) Drainage without water flow into embankment from soft ground.

Stabilization of Soft Ground

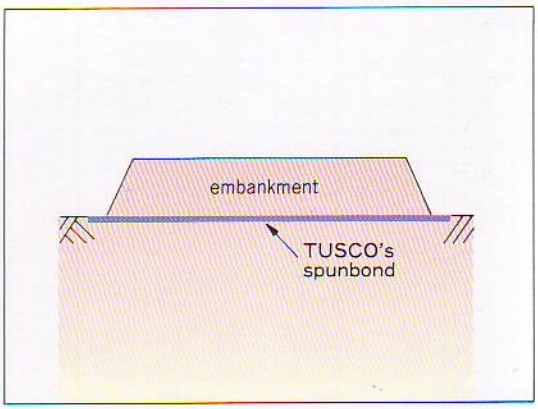
TUSCO's spunbond, which is difficult to be broken due to high strength as well as good elongation, can sustain the load of embankment, and makes soft ground well-stabilized.











Application :

(1) Improvement of trafficability of heavy building machinery.

(2) Soil layer separation between soft ground and embankment.

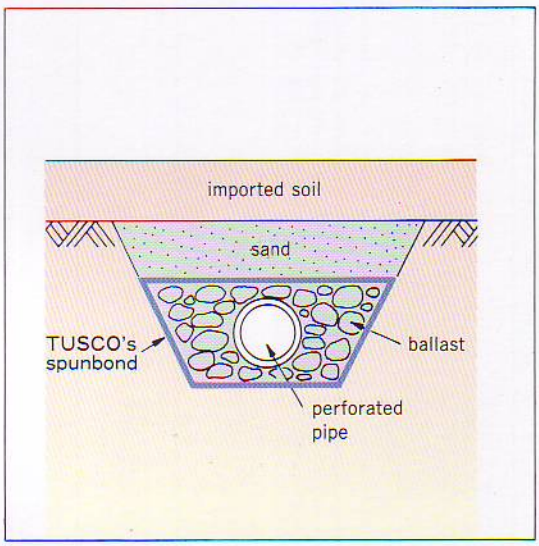
(3) Drainage of consolidated ground water flow and rain water flow.

Drainage Filter

TUSCO's spunbond effectively resists clogging, and has water permeability equivalant to sand as well as good draining effect for a long time.







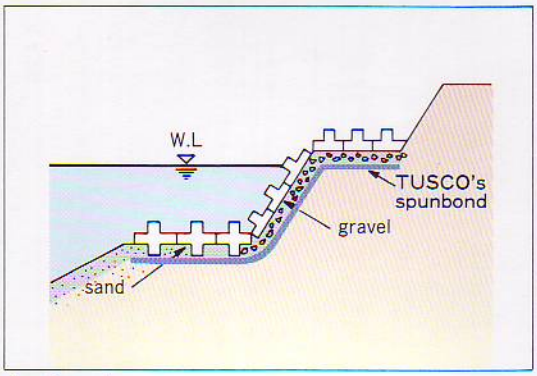
Application :

(1) Prevention of clogging.

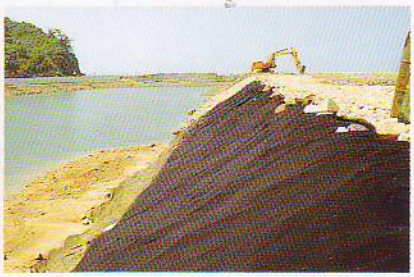
(2) Improvement of draining effect.

Erosion Control

TUSCO's spunbond can drain water only and prevent sand and soil from erosion. Wide width is economical and effective in installation.

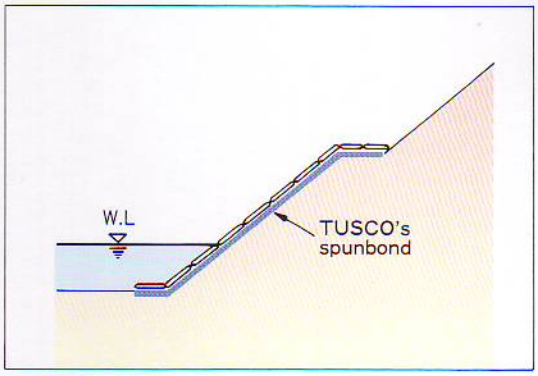






Application :

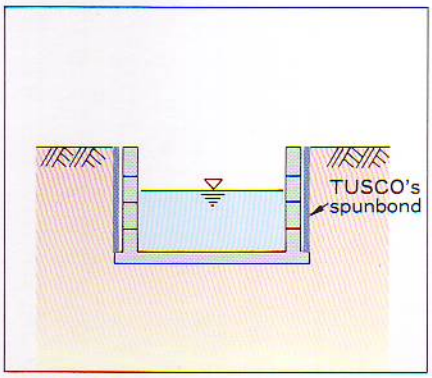
TUSCO's spunbond is utilized as the backing of port reclamation. It prevents sand and soil from erosion.

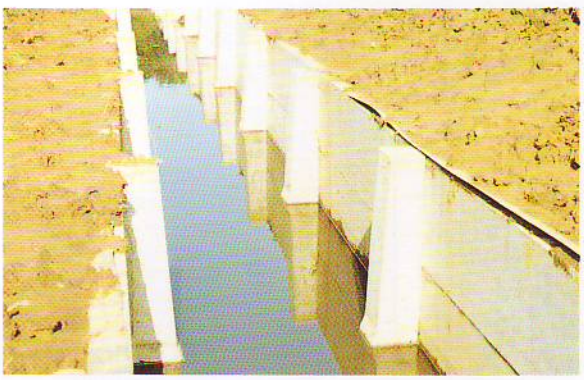




Application :

Erosion control of river banks in installing TUSCO's spunbond underneath of joint blocks.

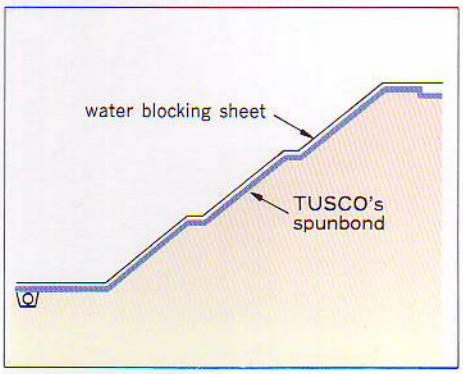


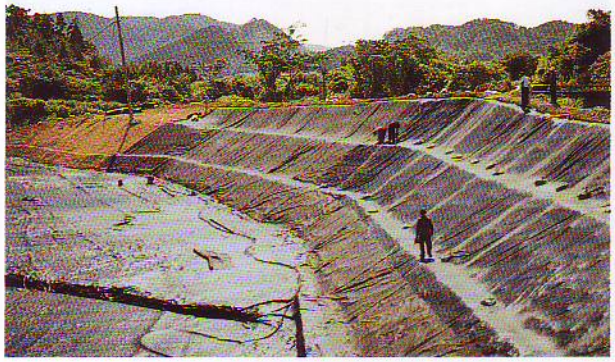


Application :

Erosion control of assembling conduit for agricultural irrigation canal.

Surface Protection



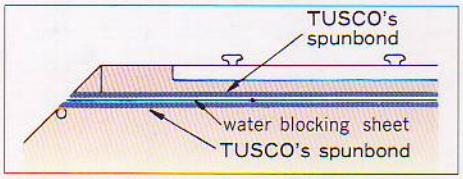


Application :

(1) Reinforcement of water blocking sheets.

(2) Cushioning and drainage effect.

Separation



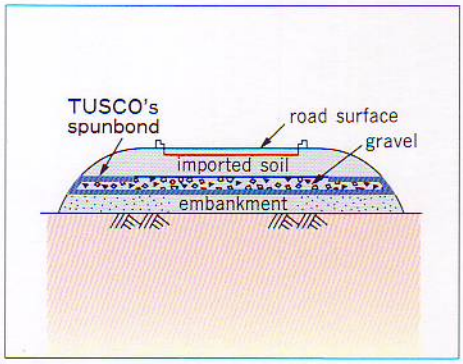




Application :

Prevention of mixture between ballast and soil in installing TUSCO's spunbond underneath of ballast.





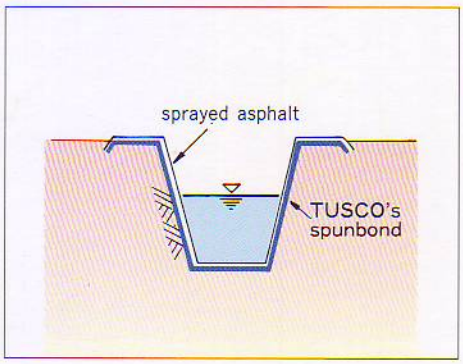
Application :

(1) Separation in installing TUSCO's spunbond between soft road floors and road beds.

(2) Ensuring the strength of road beds.

Temporary Drainage Ditch



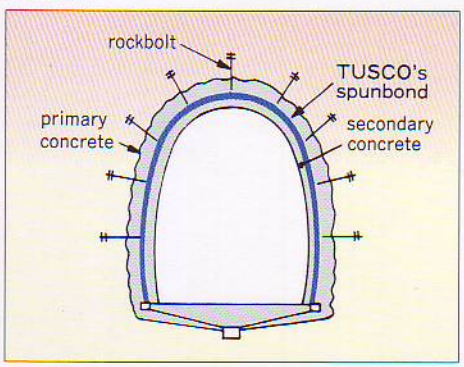


Application :

Prevention of erosion due to rain falls after ground improvement.

Back Side Drainage Methods of Tunnel





Application :

TUSCO's spunbond as drainage sheet for NATM(New Austrian Tunnel Methods) with the excellent function to drain spring water.

TUSCO

TEIJIN UNITIKA SPUNBOND (THAILAND) CO.,LTD.

Providing goods and services for customer's satisfaction

บริษัท ยูเอชเอ็ม จำกัด
UHM CO., LTD.

185/3 ถนนราชดำริ แขวงลุมพินี เขตปทุมวัน กรุงเทพมหานคร 10330
185/3 Rachdamri Road, Lumphini, Patumwan, Bangkok 10330, Thailand
Tel. 0-2651-9111 (20 Lines) Fax. 0-2255-4357-9 http://www.uhm.co.th e-mail:info@uhm.co.th

Distributed by:

บริษัท ยูเอชเอ็ม จำกัด
185/3 ถนนราชดำริ แขวงลุมพินี เขตปทุมวัน กรุงเทพฯ 10330
โทร : 0-2651-9111 (อัตโนมัติ 20 สาย) แฟกซ์ : 0-2255-4357-9
http://www.uhm.co.th e-mail : info@uhm.co.th

" นำเสนอสินค้าและบริการที่ลูกค้าพึงพอใจ "

คุณสมบัติของเส้นใยสังเคราะห์ TUSCO

ข้อมูลทางด้านเทคนิค **Polyester Spunbond Continuous Fiber Needle Punched Nonwoven Geotextile**

PROPERTIES	TEST METHOD	UNIT		AN100 BKE	AN150 BKE	AN200 BKE	AN250 BKE	AN300 BKE	AN350 BKE	AN400 BKE
WEIGHT	ASTM D3776	g/m^2		100	150	200	250	300	350	400
THICKNESS ($2kN/m^2$)	ASTM D5199	mm.		1.0	1.5	2.1	2.3	2.8	3.1	3.6
TENSILE STRENGTH	ASTM D4595	kN/m	MD	9.7	16.3	20.5	26.2	30.0	35.0	41.0
			CD	7.1	12.5	17.4	20.6	26.6	30.0	33.4
GRAB STRENGTH	ASTM D4632	N	MD	450	850	1,050	1,420	1,740	1,890	2,320
			CD	380	710	1,030	1,220	1,600	1,700	2,210
ELONGATION	ASTM D4632	%	MD	75	75	68	75	75	75	80
			CD	75	75	80	80	80	80	90
TEAR STRENGTH	ASTM D4533	N	MD	290	450	520	640	750	890	1,070
			CD	220	370	470	550	650	780	920
CBR PUNCTURE	BS6906 (PART 4)	N		1,200	2,160	2,700	3,410	4,250	4,600	5,550
PUNCTURE STRENGTH	ASTM D4833	N		230	360	450	520	680	700	740
BURST STRENGTH	ASTM D3786	kPa.		990	>1,382	>1,382	>1,382	>1,382	>1,382	>1,382
WATER PERMEABILITY	ASTM D4491	cm/sec		$2.5x10^{-1}$	$2.5x10^{-1}$	$2.5x10^{-1}$	$2.5x10^{-1}$	$2.5x10^{-1}$	$2.5x10^{-1}$	$2.5x10^{-1}$
		$l/m^2/sec$		250	167	119	109	89	80	69
PORE SIZE (O_{95})	ASTM D4751	mm		0.14	<0.075	<0.075	<0.075	<0.075	<0.075	<0.075
UV RESISTANCE	ASTM D4355	Retain >90% of original tensile strength after 3 month exposure to UV								
CHEMICAL RESISTANCE	INDEPENDENT TESTING	No change of being more than + 15%								
BIOLOGICAL RTESISTANCE	STANDARD ASSESSMENT	No effect								

- ข้อมูลในใบแนะนำสินค้านี้ เป็นข้อมูลที่ได้จากการทดสอบจากสถาบันที่ได้รับการรับรอง
ข้อมูลอาจมีการเปลี่ยนแปลงได้โดยไม่ต้องแจ้งให้ทราบล่วงหน้า
- MD = MACHINE DIRECTION, CD = CROSS MACHINE DIRETION

ขนาดมาตรฐานของสินค้า

คุณลักษณะต่อม้วน	หน่วย	AN100 BKE	AN150 BKE	AN200 BKE	AN250 BKE	AN300 BKE	AN350 BKE	AN400 BKE
ความยาว	m	200	200	100	50	50	50	50
ความกว้าง	m	4.0	4.0	4.0	4.0	4.0	4.0	4.0
พื้นที่	m^2	800	800	400	200	200	200	200
น้ำหนัก	kg	80	120	80	50	60	70	80