What time is your Fashion?

Ecoyaa

Ecoyaa

Blue jeans, a favorite of people around the world, are one of the products that most produce environmentally harmful substances during the production process. Blue jeans are made from white denim cloth, which is dyed blue using an indigo dye and bleached using various chemicals including sodium hypochlorite to lend an air.

Such chemicals run off during the washing and then cleaning processes, during which the polluted water mixed with dyes would flow without filtration into rivers around the factory. Furthermore, some of the toxic chemicals have been delivered to consumers smeared in blue jeans without complete removal even in the washing process, which can cause skin trouble. The amount of water consumed in production of a pair of jeans is about 10,000 liters; in other words, a pair of the trousers we now wear uses water much enough to afford 2,200 African residents a day's drinking need.

Ecoyaa is a company specializing in the research and manufacture of eco-friendly products since its foundation in 2003. The Company has been making efforts to develop technology for humankind and the environment. It has continuously endeavored to mass produce products based on Korean traditional techniques under a strict quality control system. It has received many patents and is willing to share its world-patented technologies for all human beings.

Ecoyaa's mission is to remove elements that may be harmful to the human body during the production process and, further, fundamentally get rid to environmental pollutants generated in the production process. To put it into practice, it has gotten all products tested and verified by KOTITI (the Korean Textile Development Institute) and SGS (Soiete Generate de Surveillance).

全世界で愛されているデニムはその生産過程で環境汚染が非常に多い品目の一つである。 デニムはその素材である白い綿にインディゴ染料を使用して青く染める。 その後、塩素酸ナトリウムなど多量の化学薬品を使い、漂白処理を通じて色具合を整える。 生産時に使われた化学薬品はワッシング過程や洗濯過程を通して仕上がる。 この際、工場周辺の河川には染料が溶けた汚染水がそのまま流れ込んで行く。 それだけではなく、洗濯過程を通じても除去できず、布に残されていた化学薬品は消費者のもとにそのまま販売され、大きな肌荒れやトラブルの原因となっている。 デニム1枚の生産には約1万リトルの水が使われると言われている。 これはアフリカの人々2200人が1日に使用できる水の量である。

2003年に設立したＥｃｏｙａａは環境にやさしい製品の開発及び生産の専門研究機関である。 人間、または環境のため、技術開発に継続的な努力をしている。 韓国伝統の技法を基に品質管理や大量生産が出来るように持続的な研究活動の末、多くの特許が取得できる。 当社はこの特許を通じて、人間のための技術を分け合おうとしている。 生産段階から人間への有害要素を除去するだけではなく、その段階で発生している環境汚染要素を根本的に遮断することがEcoyaaの理念である。 このため、Ecoyaaの全ての生産品はKOTITI (the Korean Textile Development Institute) や SGS (Soiete Generate de Surveillance)を通じて品質の検証をうけている。 当社は持続的な革新や人間への愛を本に新しい染色市場開拓のために最善をつくすつもりである。

Wine-texの長所の一つは抗菌率である。 生産過程で使われている沢山の有害化学薬品の中でも塩素酸ナトリウムは最も我々の体に深刻な影響を与えている。 しかし、当社のワインデニムは塩素酸ナトリウムの変わりにワインと共に漢方の薬剤を染色補助剤として使用している。

One of the best features of Wine–Tex is antibacterial action. The use of various chemicals, including sodium hypochlorite that causes skin trouble and atopic dermatitis, used during the processing of normal jeans has done serious effects on our bodies. On the other hand, Wine–Tex jeans use, instead, wine along with Oriental medicinal herbs as its ancillary dye–ing agents.

Another merit is no use of harmful substances. Prior–art blue jeans contain multiple toxic substances such as formalde–hyde, toluidines, P–Chloroaniline, P–Kresidine, and Trimeth–ylaniline that can cause health problems. On the other hand, the Wine–Tex jeans exclude sodium hypochlorite used in the washing process and the sulfurization used in the dyeing process, producing no toxic wastes thanks to Ecoyaa's proprietary eco–friendly technology. Absence of all such toxic substances was confirmed by test results conducted by the KOTITI in conformity with the European Standards. In spite of that, they have received grades 4~5 in most fastness tests.

Fabric–printing pigments: to add natural binders or natural pastes to a pigment solution prepared and adjust its viscos–ity, so as to apply the pigment solution on fabrics to create specific patterns.
Printing dyes: to add natural binders or natural pastes to a pigment solution prepared, control the viscosity, and apply it.
Oil and water paints: to add water–soluble, plant–based binders in a pigment solution prepared, agitate it and regulate the viscosity, draw desired pictures or paint, and let it dry up naturally or by heating. In addition to the methods described above, a variety of combinations can be made during the production process, achieving the optimization of high quality.

もう一つの特徴は有害物質を使用しないということである。 既存デニムには加工後、体に大きな影響を及ぼすformaldehyde, toluidines, P-Chloroaniline, P-Kresidine、Trimethylanilineなど沢山の有害物質が布に残留していた。 しかし、ワインデニムはワッシング過程で使われてる塩素酸ナトリウムや硫黄処理をせず、Ｅｃｏｙａａ独自の親環境技術を使用、有害成分が全く残らない。 これはヨーロッパ基準検査をKOTITIから依頼し、判明されている。クロックメーター検査では４－５の結果を獲得。

織物印刷用顔料：上記の製造された顔料液に天然バインダー又は天然ペーストを添加し、粘度を整える。 調節後の顔料を織物に塗り付けることで特定した模様が表現できる。
押し染め用染料：上記の製造された顔料液に水性植物性天然バインダーを添加し、粘度を整える。
ペイント及び絵の具：上記の製造された顔料液に水性植物性天然バインダーを添加、拡販によって粘度を整える。調節後、望んでる絵を描いて自然乾燥又は熱で乾燥する。 この他にも生産過程で様々な組み合わせにより品質の最適化を導く。

Denim by Premiere Vision
WINE-TEX DENIM

Ecoyaa of Korea, which owns the worldwide patent for the eco–friendly, natural dying technology called “Wine–Tex”, announced strategic business cooperation agreements with INVISTA, a high quality fabric maker, and ITV of Italy, a premium denim producer, at a press meeting held in the “Denim by Premiere Vision” in Paris, France.

The interest that premium denim producers and reporters from all over the world showed at the official press conference held in the VIP/Press Lounge on November 28th was the reflection of a genuine expectation about this new denim production technology.

The technology has given much consideration to and concern for the environment and humans in the selection of raw materials and the production process and also earned a high degree of likability in proof of its cost reduction in the process. Other remarkable advantages of the Wine–Tex technology include the achievement of price competitiveness and product marketability despite eco–friendly products

These Wine–Tex products have now drawn much interest as futuristic and humane goods, presenting a new world of denim.

韓国企業Ecoyaaは親環境天然染色技術であるWINE-TEXを全世界特許を通じて、ハイ・クオリティー原糸企業INVISTA,プレミアム・デニム生産企業であるイタリアITVとパリで開かれたDinim by Premiere Visionで記者会見　兼、戦略的な契約締結を発表した。 2012年11月28日、VIP/Press Loungeで開かれた公式記者会見でプレミアム・デニム企業達と全世界の記者達の関心は新たなデニム生産技法に対しての期待を表した証だったと思っている 材料だけではなく生産過程で環境と人間に対しての配慮や工程上の費用削減を証明した部分が高く評価された理由の一つだったと思ってる。 親環境製品であると共に価額競争力や商品性まで備えてるのはWINE-TEXの注目すべき長所である。 結果から申し出すとWINE-TEXはデニムの新たな世界を取広げた未来志向的、親人間商品であるのを認めてもらったと言える。

PRESS

http://lx.168tex.com

2014秋冬巴黎Premiere Vision牛仔面料展

[来源:流行面料网 | 作者:本网报道 | 时间:2013-6-14 11:07:12]

关于展会

95家参展商（相比2012年5月增加15%），来自20个国家，包括土耳其、意大利和巴基斯坦。观众人数达到历史新高，相比2012年5月增长超过20% ，参展牛仔品牌包括Arvind， Bossa，Cone Denim， Denim Valley， Kuroki 和 Orta 。

产品特色包括魔皮涂层、弹性创新和舒适的冬季纹理。展会亮点包括Cotton Incorporated就最新牛仔装科技和处理概念举行的研讨会。

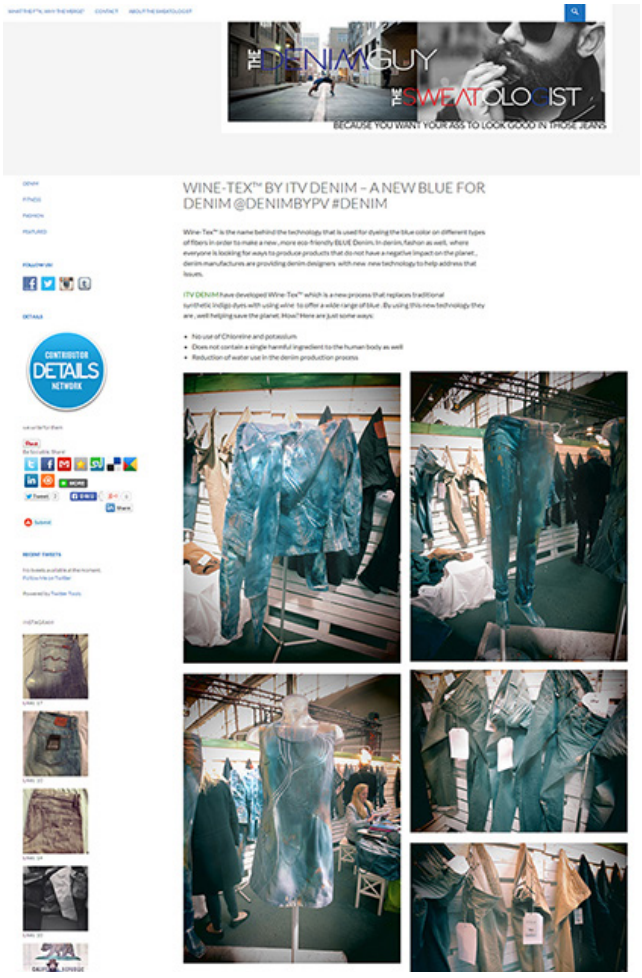
在Up to Denim区域，Isko举行了一场会议，关注弹性牛仔的发展，推出利用INVISTA→为德国品牌Esprit打造的"24小时牛仔"。

Prosperity Textile就其生态友好产品系列举行了一场新闻发布会。

I.T.V.和ECoyaa组织绘画"活动"，展示用葡萄酒产品制成的全新Wine - Tex→色彩。

地点：巴黎，Halle Freyssinet

http://thedenimguy.com



YOUTUBE

http://youtu.be/CnsR6wt-OTw
http://youtu.be/SZDvNGhWFg4
http://www.youtube.com/watch?v=L3bNJila2k4
http://www.youtube.com/watch?v=eLOs-K8J--M&feature=youtu.be

ARTICLE

http://www.denimblog.com/2012/12/itv-denim-uses-wine-to-dye-jeans/
http://textilesupdate.com/denim-by-premiere-vision-success-dynamism-and-creativity
http://editd.com/blog/2013/05/aw14-denim-trends/
http://www.ktnews.com/news/news_content.asp?countnum=76259
http://www.fibre2fashion.com/news/apparel-news/newsdetails.aspx?news_id=118305

HISTORY

2006 PARIS who is next

2007 LA textile show, PARIS who is next

2008 06 S/S Seoul Collection, PARIS who is next

2009 08-09 F/W Seoul Collection, 09 S/S Hong Kong fashionweek
PARIS S/S pret-a-porter, who is next

2010 PARIS S/S, F/W Denim by PV, Seoul Collection

2011 PARIS S/S, F/W Denim by PV

2012 premium denim with the conclusion of strategic ties with ITV of Italy

2013 Denim by PV / WINE-TEX Live Painting Show


PANTS	SYSTEM001	CO 100%
T-SHIRTS	not for sale	


PANTS	SYSTEM002	CO 91.8%,T400 6.6%, EA 1.6%
T-SHIRTS	DRAWING002	TENCEL 66.5%, CO 28.5%, PU 5%


PANTS	SYSTEM003	CO 97%, EA 3%
T-SHIRTS	not for sale	


PANTS	SYSTEM003	CO 97%, EA 3%
T-SHIRTS	not for sale	

PANTS	SYSTEM004	CO 98%, EA 2%
T-SHIRTS	GWT004	CO 100%

PANTS	SYSTEM005	CO 72%, T400 28%
T-SHIRTS	not for sale	

PANTS	SYSTEM006	CO 97%, EA 3%
T-SHIRTS	GWT005	CO 100%

PANTS	WT001	CO 72%, T400 28%
T-SHIRTS	OVERLAP004	CO 100%


PANTS	WT005	CO 93.4%, T400 6.6%
JACKET	OVERLAP001	CO 89.3%, PO 8.4% / LIN 100%


PANTS	WT005	CO 93.4%, T400 6.6%
T-SHIRTS	BRUSH003	CO 100%


PANTS	WT006	CO 91.8%, T400 6.6%, EA 1.6%
T-SHIRTS	not for sale	


PANTS	WT007	CO 93.4%, T400 6.6%
T-SHIRTS	OVERLAP003	CO 100% / PO 100%




SKIRT	WT002	CO 97%, EA 3%
JACKET	OVERLAP006	CO 97%, EA 3% / LIN 100%

PANTS	WT008	CO 93.4%, T400 6.6%
JACKET	OVERLAP007	CO 100% / LIN 100%




PANTS	WT009	CO 72%, T400 28%
JACKET	BREEZE002	LIN 100%

PANTS	WT010	CO 93.4%, 6.6%
T-SHIRTS	not for sale	CO 100%

PANTS	WT011	CO 72%, T400 28%
T-SHIRTS	GWT009	CO 100%

PANTS	WT003	CO 72%, T400 28%
SHIRTS	GWT012	CO 100%

PANTS	WT004	CO 93.4%, T400 6.6%
T-SHIRTS	OVERLAP011	MODAL 90%, SILK 10% / CO 100%

PANTS	GWT001	CO 100%
JACKET	BRUSH001	LIN 100% / PE 42%, CO 38%, NY 17.5%, SP 2.5%

PANTS	GWT002	CO 100%
SHIRTS	GWT003	CO 98%, EL 2%

PANTS	GWT006	CO 98%, EA 2%
SHIRTS	BRUSH006	CO 100%

PANTS	GWT007	CO 89.3%, PO 8.4%
T-SHIRTS	not for sale	

PANTS	GWT008	CO 100%
VEST	BREEZE003	NY 50%, CO 50%


PANTS	GWT010	CO 93%, PL 5%, EA 2%
T-SHIRTS	GWT011	CO 100%


PANTS	BRUSH004	CO 98%, EA 2%
T-SHIRTS	OLERLAP002	CO 100% / LIN 100%


PANTS	BRUSH005	CO 98%, ELASTANE 2%
T-SHIRTS	DRAWING001	CO 60%, PO 40%


PANTS	BRUSH009	CO 89.3%, PO 8.4%
T-SHIRTS	not for sale	

PANTS	BRUSH002	CO 93%, PL 5% / CO 72%, T400 28%
T-SHIRTS	not for sale	

PANTS	BRUSH002	CO 93%, PL 5% / CO 72%, T400 28%
SHIRTS	not for sale	

PANTS	BRUSH007	CO 89.3%, PO 8.4%
COAT	BEEZE001	CO 50%, NY 50%

PANTS	BRUSH008	CO 98%, EA 2%
SHIRTS	not for sale	


PANTS	BRUSH010	CO 98%, EA 2%
JACKET	BREEZE004	LIN 100%


PANTS	OVERLAP012	PO 73%, CO 23%, SP 4%
T-SHIRTS	not for sale	CO 100% / LIN 100%


PANTS	OVERLAP013	CO 89.3%, PO 8.4%
T-SHIRTS	not for sale	CO 100%


PANTS	OVERLAP009	PO 73%, CO 23%, SP 4% / CO 100%
T-SHIRTS	not for sale	

COAT	OVERLAP005	LIN 100% / CO 100%

COAT	OVERLAP005	LIN 100% / CO 100%

PANTS	DRAWING003	CO 98%, ELASTANE 2%
T-SHIRTS	not for sale	

TEST REPORT

KOTITI
Global Business Partner

www.kotiti.re.kr
819-5, Yoksam 1-Dong, Gangnam-Gu, Seoul, 135-932 Korea TEL : (02)3451-7000 FAX : (02)3451-7171

TEST REPORT

KOTITI NO. : 1011-012104
APPLICANT : ECOYAA
DATE IN : May 12, 2010
DATE OUT : May 19, 2010

Sample Description	ONE (1) WOVEN FABRIC
Item	WINE JEAN
Buyer	N/S
Style Number	N/S
P.O. Number	N/S
Color(s) Submitted	BLUE
Submitted Fiber Composition	COTTON
Submitted Care Instruction	N/S
Test Result	For further details, please refer to the following page(s).

* N/S : Not Submitted

SANG RAG LEE
GENERAL MANAGER

MYUNG HAK LEE
DIRECTOR GENERAL

Contact information for technical questions and general inquiries.

Prepared by :	Sun A Yu	(822) 6461 7062	ba_you@kotiti.re.kr
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Back-up :	Jin Chan Kim	(822) 6461 7102	ds_kim@kotiti.re.kr

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD

Determination of Arylamines, mg/kg — Gas Chromatography-Mass Spectrometry

<Unit : mg/kg>

No.	Arylamines	CAS No.	Test Results
1	O-Toluidine	95-53-4	Not Detected
2	2-Methoxyaniline	90-04-0	Not Detected
3	P-Chloroaniline	106-47-8	Not Detected
4	P-Kresidine (2-methoxy-5-methylaniline)	120-71-8	Not Detected
5	2,4,5-Trimethylaniline	137-17-7	Not Detected
6	4-Chloro-o-toluidine	95-69-2	Not Detected
7	2,4-Toluylenediamine (4-Methyl-1,3-phenylenediamine)	95-80-7	Not Detected
8	2-4-Diaminoanisole (4-Methoxy-m-phenylene diamine)	615-05-4	Not Detected
9	2-Naphthylamine	91-59-8	Not Detected
10	2-Amino-4-nitrotoluene	99-55-8	Not Detected
11	4-Aminodiphenyl	92-67-1	Not Detected
12	4,4' Oxydianiline	101-80-4	Not Detected
13	Bezidine	92-87-5	Not Detected
14	4,4'-Diaminodiphenylmethane	101-77-9	Not Detected
15	O-Aminoazotoluene	97-56-3	Not Detected
16	3,3'-Dimethyl-4,4-diaminodiphenylmethane	838-88-0	Not Detected
17	3,3'-Dimethylbenzidine	119-93-7	Not Detected
18	4,4' Thiodianiline	139-65-1	Not Detected
19	3,3'-Dichlorbenzidine	91-94-1	Not Detected
20	4,4' Methylene-bis-(2-chloraniline)	101-14-4	Not Detected
21	3,3'-Dimethoxybezidine	119-90-4	Not Detected
22	p-Aminoazobenzene	60-09-3	Not Detected
23	2,4-Xylidin	95-68-1	Not Detected
24	2,6-Xylidin	87-62-7	Not Detected

Remarks :
Test method : EN 14362-1 for colored textile articles.
Detection Limit : Less than 10mg/kg
(Under German Food and Commodities Act, Section 35 on banned azo colorant, and under European Directive 76/769/EEC and the subsequent amendments on banned azo colorant)

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
Colorfastness to Light (Xenotest 150S), Grade		ISO 105 B02-1999
20 @ SFH	3	
Colorfastness to Rubbing, Grade		ISO 105 X12-2001
Dry	4	
Wet	3	
Colorfastness to Perspiration (Acid), Grade		ISO 105 E04-2008
Color Change	4-5	
Staining to Acetate	4-5	
Cotton	4-5	
Nylon	4-5	
Polyester	4-5	
Acrylic	4-5	
Wool	4-5	
Colorfastness to Perspiration (Alkali), Grade		ISO 105 E04-2008
Color Change	4-5	
Staining to Acetate	4-5	
Cotton	4-5	
Nylon	4-5	
Polyester	4-5	
Acrylic	4-5	
Wool	4-5	
Colorfastness to Water, Grade		ISO 105 E01-1994
Color Change	4-5	
Staining to Acetate	4-5	
Cotton	4-5	
Nylon	4-5	
Polyester	4-5	
Acrylic	4-5	
Wool	4-5	
Colorfastness to Drycleaning, Grade		ISO 105 D01-1995
Color Change	4	
Staining of the Solvent	4-5	

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
Formaldehyde Content (Acetyl-Aceton Method), mg/kg		ISO 14184-1-2009
	ND	
	< ND(not Detected) = Less than 20 mg/kg >	
pH Value		ISO 3071-2009
	6.7	

Sample

TEST REPORT

Intertek

No: SHF126T0626

TEST REPORT

Name of Sample: ITAT12010019

Applicant: Intertek Italy

Test Purpose: ENTRUST TEST

Intertek Testing Services Ltd., Shanghai
6/F., No. 2 Building, Shanghai Comalong Industrial Park,
No. 889 Yishan Road, Shanghai, 200233, China.

Intertek

TEST REPORT

REPORT No: SHF126T0626

NAME OF SAMPLE	ITAT12010019	TEST PURPOSE	ENTRUST TEST
SPECIFICATION	/	TRADEMARK	/
SAMPLE DESCRIPTION	Textile		
CLIENT	Intertek Italy		
MANUFACTURER	/		
RECEIPT OF ORDER	Nov. 14, 2012	SAMPLE QUANTITY	1 piece
PRODUCTION DATE	/	CODE / NUMBER	/
TEST STANDARD	AATCC TEST METHOD 100-2004 ANTIBACTERIAL FINISHES ON TEXTILE MATERIALS AATCC 100-2004		
TESTING PERIOD	Nov. 14, 2012 TO Nov. 20, 2012		
TEST CONTENT	CIRCUMSTANCES ARE IN THE REPORT ATTACHMENT.		
CONCLUSION	SUPPLY REAL MEASURING DATA CIRCUMSTANCES ARE IN THE REPORT ATTACHMENT Date: Nov. 20, 2012		
REMARK	THE TESTING RESULTS ARE ONLY VALID FOR THE SAMPLE TESTED.		

TO BE CONTINUED

PREPARED AND CHECKED BY:
INTERTEK TESTING SERVICES LTD., SHANGHAI

Sammy Shen

SAMMY SHEN
ASSISTANT LAB MANAGER

AUTHORIZED BY:
INTERTEK TESTING SERVICES LTD., SHANGHAI

Helia Wang

HELIA WANG
FOOD LAB MANAGER

Intertek

TEST REPORT

REPORT No: SHF126T0626

REPORT ATTACHMENT

TEST ITEM
Antibacterial test

TEST METHOD:
AATCC Test Method 100-2004 Antibacterial Finishes on Textile Materials: Assessment of

TEST ORGANISMS & STRAIN NO:
Staphylococcus aureus ATCC 6538
Klebsiella pneumoniae ATCC 4352

CONCENTRATION & QUANTITY OF INOCULUM:
concentration: 1.2×10^5 cfu/ml
quantity: 1.0±0.1 ml

SAMPLE PORTION:
2 piece/circular 4.8 cm in diameter

SAMPLE PRETREATMENT:
Sterilization in the autoclave (121°C, 15 min)

SOURCE OF THE CONTROL SAMPLE:
Prepared by lab

CONTACT TIME & INCUBATION TEMPERATURE:
18-24 hours 37±2℃

TO BE CONTINUED

Intertek

TEST REPORT

REPORT No: SHF126T0626

TEST RESULTS:

Test organism	Concentration of bacteria (cfu/ml)	The number of bacteria recovered from (cfu/ml)			Decrease value of bacteria (%)
		/	at "0H" contact time	at "24H" contact time	
Staphylococcus aureus ATCC 6538	2.0×10^5	Sample	1.8×10^5	3.9×10^4	80.5
		Control Sample	2.0×10^5	3.7×10^5	/
Klebsiella pneumoniae ATCC 4352	1.4×10^5	Sample	1.4×10^5	3.2×10^5	0
		Control Sample	1.4×10^5	5.4×10^5	/

Remark: Reference rating:

%Reduction	Antibacterial activity
0%	Not acceptable
<50%	Insignificant
>50%	Acceptable
>95%	Acceptable & significant

END OF REPORT

TEST REPORT

SGS

Test Report No. F690501/LF-CTSAYSA11-06469 Issued Date : May 23, 2011 Page 1 of 4

TO: **ECOYAA**
#1207, TIM204, 204-48, SINDANG-DONG, JUNG-GU
SEOUL, KOREA

The following merchandise was submitted and identified by the client as: -

SAMPLE DESCRIPTION	:	ONE SAMPLE OF 100 % COTTON WINE-TEX FABRIC
COLOR	:	BLUE
STYLE NO./ITEM NO.	:	WINE-TEX
ORDER NO.	:	-
BUYER NAME	:	LOUIS VUITTON
COUNTRY OF ORIGIN	:	-
COUNTRY OF DESTINATION	:	-
SAMPLE RECEIVING DATE	:	MAY. 09, 2011
TEST PERFORMING DATE	:	MAY. 11, 2011 TO MAY. 23, 2011
TEST PERFORMED	:	This test report contains result performed by subcontracted laboratory in agreement with the applicant. The result is marked with crosshatch (#) in this report.
TEST RESULTS	:	For further details, please refer to following page.

SGS Korea Co., Ltd.

Tommy Oh / Technical Manager

SGS

Test Report No. F690501/LF-CTSAYSA11-06469 Issued Date : May 23, 2011 Page 2 of 4

Test Conducted **Results**

Assessment of Antibacterial Activity
-, Reference: AATCC 100 – 2004

		Staphylococcus aureus ATCC 6538		*Klebsiella pneumoniae* ATCC 4352	
		CFU	% Reduction	CFU	% Reduction
"0" Contact time		1.7×10^5	-	1.6×10^5	-
Sample After 18h	1st	$< 10^2$	99.9%	$< 10^2$	99.9%
	2nd	$< 10^2$	99.9%	$< 10^2$	99.9%
	3rd	$< 10^2$	99.9%	$< 10^2$	99.9%

<Remark>
1) Sample Size : Diameter (4.8 ±0.1) cm, 3 swatches
2) Inoculum Concentration :
Test Bacteria 1 : 1.7×10^5 CFU/mL
Test Bacteria 2 : 1.6×10^5 CFU/mL
3) Nonion Surfactant : Tween #80, 0.05% in Inoculum
4) Dilution Medium : Nutrient broth (BD)
5) Sterilization Method : Autoclave (121 ℃, 15 min)

Surface Resistance, Ω (#)
Test Method : EN 1149-1:2006

ABOVE 6.0×10^{16}

<Note> Test Condition : (23±2)℃, (25±2)% RH
Test Voltage : 100V, 15s

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Test Report No. F690501/LF-CTSAYSA11-06469 Issued Date : May 23, 2011 Page 3 of 4

Test Conducted **Results**

UPF(Ultraviolet Protection Factor), %(#)
Test Method : AATCC 183:2010

- UPF	50+
- UV-A Transmission	< 0.1
- UV-B Transmission	< 0.1

<Note> Wavelength Range : 280 nm ~ 400 nm
UV-A : 315 nm ~ 400 nm
UV-B : 280 nm ~ 315 nm
Wavelength Interval : 2 nm
Measuring Type : 0/d TYPE
Determination of the UVR Transmission of dry and wet textile as received.
Measuring Instrument : UV-VIS-NIR Spectrophotometer.(Varian.Cary 5000)
50+ : A UPF Rating of 51 or greater.(AS/NZS 4399:1996)
< 0.1 : Less Than 0.1

Assessment of Deodorization Activity, %(#)
Test Method : Gas detector method

Time (min.)	Deodorization (%)
30	Over 99
60	Over 99
90	Over 99
120	Over 99

<Note> 1. Test condition
1) Sample weight : (3.1) g
2) Test gas : Ammonia (NH_3)
3) Concentration of blank : 500 ppm
4) Volume of test vessel : 1000 ml
5) Temperature : 24 ℃
6) Humidity : 16 %
2. Deodorization Rate (%)
= [(Conc.of gas in blank – Conc.of gas in sample) / Conc.of gas in blank] x 100

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Test Report No. F690501/LF-CTSAYSA11-06469 Issued Date : May 23, 2011 Page 4 of 4

Picture of Sample as Received :

*** End of Report ***

TEST REPORT

SGS

Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 1 of 7

TO: **ECOYAA**
#1207, TEAM204, 204-48, SINDANG-DONG, JUNG-GU
SEOUL, KOREA

The following merchandise was submitted and identified by the client as: -

SAMPLE DESCRIPTION	: ONE SAMPLE OF 72 % COTTON 28 % ELASTERELL-P WINETEX PZ WOVEN FABRIC
COLOR	: BLUE
STYLE NO./ITEM NO.	: -
ORDER NO.	: -
BUYER NAME	: -
COUNTRY OF ORIGIN	: KOREA
COUNTRY OF DESTINATION	: -
PROPOSED CARE INSTRUCTION	: MACHINE WASH COLD, TUMBLE DRY LOW
SAMPLE RECEIVING DATE	: MAR. 14, 2011
TEST PERIOD	: MAR. 15, 2011 TO MAR. 18, 2011
TEST PERFORMED	: This test report contains result performed by subcontracted laboratory in agreement with the applicant. The result is marked with crosshatch (#) in this report.
TEST RESULTS	: For further details, please refer to following page.

SGS Korea Co., Ltd.

Tommy Oh / Technical Manager

SGS

Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 2 of 7

Test Conducted — **Results**

Color Fastness to Washing, Grade
Test Method: ISO 105-C06:1994/Cor 1:2002
. A2S: Machine wash at 30 ℃ with 'ECE' reference detergent & sodium perborate with 10 steel balls

Color change	2-3
Stain (Acetate)	4-5
(Cotton)	4-5
(Nylon)	4-5
(Polyester)	4-5
(Acrylic)	4-5
(Wool)	4-5

Color Fastness to Dryclean, Grade
Test Method: ISO 105 D01: 1993

Color change	4-5
Solvent Staining	4-5

Color Fastness to Crocking, Grade
Test Method: ISO 105-X12:2001
. (Long direction: oblique, Download force: (9 ± 0.2) N)

Dry	4
Wet	2

Color Fastness to Water, Grade
Test Method: ISO 105-E01:1994/Cor 1:2002

Color change	4-5
Stain (Acetate)	4-5
(Cotton)	4
(Nylon)	4
(Polyester)	4-5
(Acrylic)	4-5
(Wool)	4-5

<Note> Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

Color Fastness to Light, Grade (#)
Test Method: ISO 105 B02 : 1994

3-4

<Note> Blue Scale Standard

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Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 3 of 7

Test Conducted — **Results**

Color Fastness to Perspiration, Grade
Test Method: ISO 105-E04:2008

Alkaline	
Color change	4
Stain (Acetate)	4-5
(Cotton)	4
(Nylon)	4-5
(Polyester)	4-5
(Acrylic)	4-5
(Wool)	4-5
Acid	
Color change	4-5
Stain (Acetate)	4-5
(Cotton)	4-5
(Nylon)	4-5
(Polyester)	4-5
(Acrylic)	4-5
(Wool)	4-5

<Note> Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

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Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 4 of 7

Test Sample:

List of Materials

Sample No.	Material	Color
(A)	Fabric	Blue

Results :

Free Formaldehyde
Test Method: With reference to ISO 14184-1:1998. Analysis was conducted by UV/VIS spectrophotometer.

Test Item(s)	Unit	MDL	Result(s)
Formaldehyde	mg/kg	20	N. D.

Note: (1) N. D. = not detected (< MDL)
(2) MDL(Method Detection Limit) = 5 mg/kg

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Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 5 of 7

Results :

Azo Dyes
Test Method: Textiles – EN14362-1:2003; Analysis was performed by GC-MS/HPLC.

Amines	CAS-Nr.	Result(s) (mg/kg)	Recommended Max. Limit* (mg/kg)
4-Aminodiphenyl	92-67-1	N. D.	30
Benzidine	92-87-5	N. D.	30
4-Chloro-o-Toluidine	95-69-2	N. D.	30
2-Naphtylamine	91-59-8	N. D.	30
o-Aminoazotoluene	97-56-3	N. D.	30
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	N. D.	30
p-Chloroaniline	106-47-8	N. D.	30
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	N. D.	30
4,4'-Diaminodiphenylmethane	101-77-9	N. D.	30
3,3'-Dichlorobenzidine	91-94-1	N. D.	30
3,3'-Dimethoxybenzidine	119-90-4	N. D.	30
3,3'-Dimethylbenzidine	119-93-7	N. D.	30
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	N. D.	30
p-Cresidine	120-71-8	N. D.	30
4,4'-Methylene-bis-(2-chloraniline)	101-14-4	N. D.	30
4,4'-Oxydianiline	101-80-4	N. D.	30
4,4'-Thiodianiline	139-65-1	N. D.	30
o-Toluidine	95-53-4	N. D.	30
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	N. D.	30
2,4,5-Trimethylaniline	137-17-7	N. D.	30
o-Anisidine	90-04-0	N. D.	30
4-aminoazobenzene**	60-09-3	N. D.	30
2,4-Xylidine	95-68-1	N. D.	30
2,6-Xylidine	87-62-7	N. D.	30
Conclusion	-	**PASS**	-

Note: (1) N. D. = not detected (< MDL)
(2) MDL(Method Detection Limit) = 5 mg/kg

Remarks: * = Recommended Max. limit specified by Entries 43 of European Regulation (EC) No. 1907/2006 (REACH) Annex XVII and Regulation (EC) No. 552/2009 – previously restricted under Directive 2002/61/EC and 2004/21/EC
** = Test result for 4-aminoazobenzene (CAS no.: 60-09-3) is considered as "not detected" (i.e. <5mg/kg) since both aniline and/or 1,4-phenylenediamine is not found (i.e. <5mg/kg) by mentioned test method.

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Azo Dyes
Test Method: Polyester – EN14362-2:2003; Analysis was performed by GC-MS/HPLC.

Amines	CAS-Nr.	Result(s) (mg/kg)	Recommended Max. Limit* (mg/kg)
4-Aminodiphenyl	92-67-1	N. D.	30
Benzidine	92-87-5	N. D.	30
4-Chloro-o-Toluidine	95-69-2	N. D.	30
2-Naphtylamine	91-59-8	N. D.	30
o-Aminoazotoluene	97-56-3	N. D.	30
5-nitro-o-toluidine / 2-Amino-4-nitrotoluene	99-55-8	N. D.	30
p-Chloroaniline	106-47-8	N. D.	30
4-methoxy-m-phenylenediamine / 2,4-Diaminoanisole	615-05-4	N. D.	30
4,4'-Diaminodiphenylmethane	101-77-9	N. D.	30
3,3'-Dichlorobenzidine	91-94-1	N. D.	30
3,3'-Dimethoxybenzidine	119-90-4	N. D.	30
3,3'-Dimethylbenzidine	119-93-7	N. D.	30
4,4'-methylenedi-o-toluidine / 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	N. D.	30
p-Cresidine	120-71-8	N. D.	30
4,4'-Methylene-bis-(2-chloraniline)	101-14-4	N. D.	30
4,4'-Oxydianiline	101-80-4	N. D.	30
4,4'-Thiodianiline	139-65-1	N. D.	30
o-Toluidine	95-53-4	N. D.	30
4-methyl-m-phenylenediamine / 2,4-Toluylendiamine	95-80-7	N. D.	30
2,4,5-Trimethylaniline	137-17-7	N. D.	30
o-Anisidine	90-04-0	N. D.	30
4-aminoazobenzene**	60-09-3	N. D.	30
2,4-Xylidine	95-68-1	N. D.	30
2,6-Xylidine	87-62-7	N. D.	30
Conclusion	-	**PASS**	-

Note: (1) N. D. = not detected (< MDL)
(2) MDL(Method Detection Limit) = 5 mg/kg

Remarks: * = Recommended Max. limit specified by Entries 43 of European Regulation (EC) No. 1907/2006 (REACH) Annex XVII and Regulation (EC) No. 552/2009 – previously restricted under Directive 2002/61/EC and 2004/21/EC
** = Test result for 4-aminoazobenzene (CAS no.: 60-09-3) is considered as "not detected" (i.e. <5mg/kg) since both aniline and/or 1,4-phenylenediamine is not found (i.e. <5mg/kg) by mentioned test method.

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Test Report No. F690501/LF-CTSAYSA11-03326 Issued Date : March 18, 2011 Page 7 of 7

Picture of Sample as Received :

*** End of Report ***

PATENT

The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

特許証

特許第5518081号

発明の名称 青色発色のための染色方法

特許権者 大韓民国 キョンキード 467−814、イチョンーシ、マジャンーミョン、オチョンーリ、92−1

国籍 大韓民国

エコヤ カンパニー リミテッド

発明者 パク ソンウン

出願番号 特願2011−530947

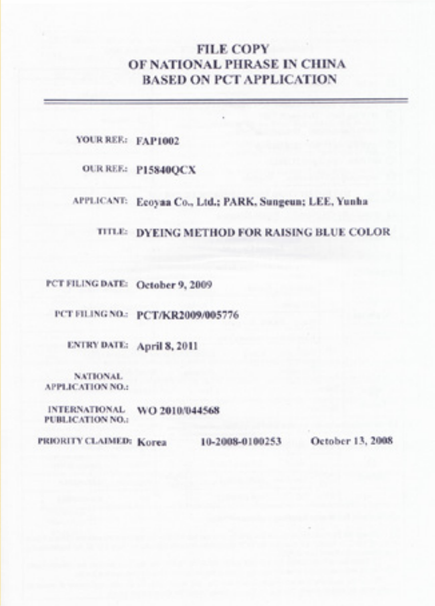
出願日 平成21年10月 9日

登録日 平成26年 4月11日

この発明は、特許するものと確定し、特許原簿に登録されたことを証する。

平成26年 4月11日

特許庁長官 羽藤秀雄



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BASED ON PCT APPLICATION

YOUR REF: FAP1002

OUR REF: P15840QCX

APPLICANT: Ecoyaa Co., Ltd.; PARK, Sungeun; LEE, Yunha

TITLE: DYEING METHOD FOR RAISING BLUE COLOR

PCT FILING DATE: October 9, 2009

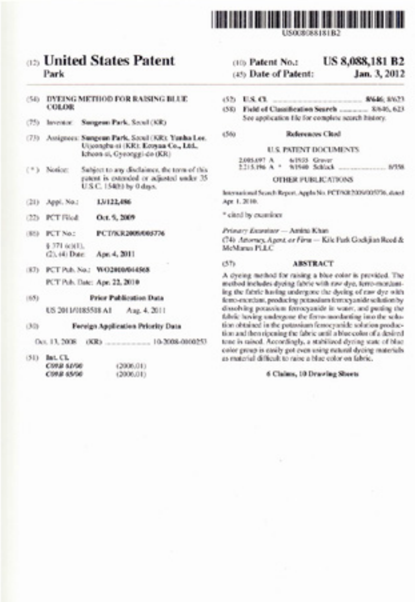
PCT FILING NO.: PCT/KR2009/005776

ENTRY DATE: April 8, 2011

NATIONAL APPLICATION NO.:

INTERNATIONAL PUBLICATION NO.: WO 2010/044568

PRIORITY CLAIMED: Korea 10-2008-0100253 October 13, 2008



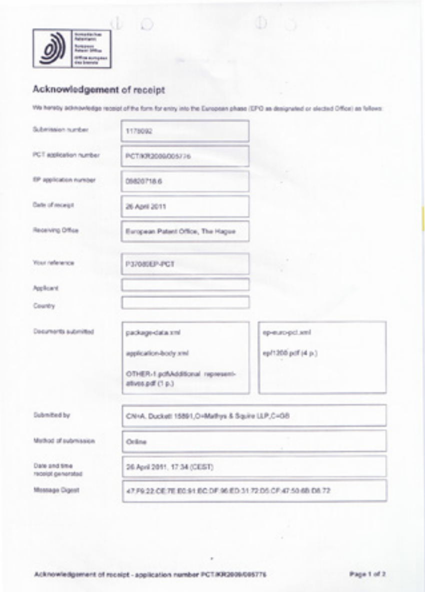
United States Patent
Park

Patent No.: US 8,088,181 B2
Date of Patent: Jan. 3, 2012

(54) DYEING METHOD FOR RAISING BLUE COLOR

(57) ABSTRACT

6 Claims, 10 Drawing Sheets



Acknowledgement of receipt

PCT application number	PCT/KR2009/005776
Receiving Office	European Patent Office, The Hague
Date of receipt	26 April 2011
Method of submission	Online

ФЕДЕРАЛЬНАЯ СЛУЖБА ПО ИНТЕЛЛЕКТУАЛЬНОЙ СОБСТВЕННОСТИ, ПАТЕНТАМ И ТОВАРНЫМ ЗНАКАМ (РОСПАТЕНТ)

ФЕДЕРАЛЬНЫЙ ИНСТИТУТ ПРОМЫШЛЕННОЙ СОБСТВЕННОСТИ

УВЕДОМЛЕНИЕ О ПОСТУПЛЕНИИ И РЕГИСТРАЦИИ ЗАЯВКИ

03.05.2011	025396	2011117088

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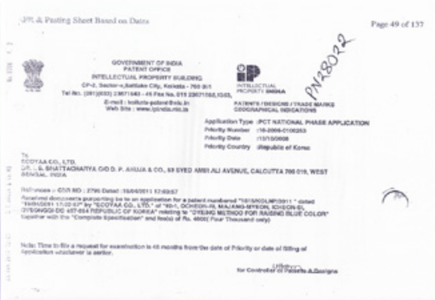

PATENT

AVIS D'ENTREE DANS LA PHASE NATIONALE
NOTICE OF NATIONAL ENTRY

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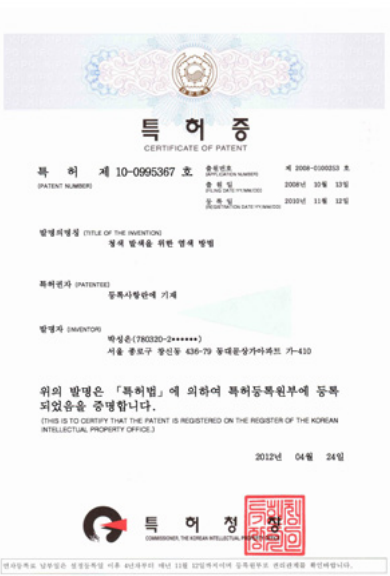

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특 허 청

상표등록증
CERTIFICATE OF TRADEMARK REGISTRATION

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특 허 청

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