

<http://www.shinkong.com.tw>



新光合成纖維關係企業



公司：台北市南京東路二段123號8樓
電話：+886-2-2507-1251 傳真：+886-2-2506-6812, 2506-8047
FACTORY：TAO-YUAN HSIEN, TAIWAN
Website：http://www.shinkong.com.tw
E-mail：hupini@shinkong.com.tw

OFFICE：8th Fl., 123, Sec. 2, Nan King E. Rd., Taipei, Taiwan
Tel：+886-2-2507-1251 Fax：+886-2-2506-6812, 2506-8047
Website：http://www.shinkong.com.tw
E-mail：hupini@shinkong.com.tw

杭州华春化纤染织有限公司
HANGZHOU HUACHUN CHEMICAL FIBER CO., LTD.

中国杭州经济技术开发区六号大街一号
Ave. 6, Hangzhou Economy & Technology Development Zone, Zhejiang Province China
Tel: (0571) 86910566 ext 2709 Fax: (0571) 86912438
P.C.: 310018
Website：http://www.shinkong.com.cn
E-mail: wchihsing@shinkong.cn juifeng@shinkong.cn

新光合成纖維股份有限公司

產品型錄



新光合成纖維股份有限公司
SHINKONG SYNTHETIC FIBERS CORP.

新光合成纖維股份有限公司由故董事長吳火獅先生等發起，創立於1967年，復徵得日商東麗株式會社與三菱商事株式會社參與投資，初期資本額為新台幣壹億陸仟萬元，爾後歷經多次增資，至2009年底資本總額達新台幣145億元，係台灣證券交易所登錄之第一類股票上市公司，目前全體員工總計2300名，股東總數超過12萬人，總資產達到324億之大型企業。本公司於1970年5月建廠完竣正式生產，歷經多次擴建，至今台灣主要工廠共有三處，佔地計444,000平方米，每日聚合產能高達1,900公噸；此外，在中國大陸及泰國亦設有生產工廠。新光合纖產品涵蓋化纖和塑膠兩大類，產品主要包括半延伸絲、聚酯原絲、聚酯全延伸絲、聚酯棉、聚酯加工絲、工業用紗、聚酯粒、瓶用酯粒、寶特瓶、寶特瓶胚、工程塑膠、光學薄膜、聚酯薄膜、聚酯膠片等產品。

Shinkong Synthetic Fibers Corporation was initially founded by H.S. Wu in 1967, subsequently developing into a joint venture with Toray Industries, Inc. and Mitsubishi Corporation Co., Ltd. The initial capital was NT \$160 million, a figure that had increased by the end of 2009 to NT \$14.5 billion, making it a category 1 stock company on the TSEC. The total number of employees is currently 2,300 with more than 120,000 shareholders and NT \$32.4 billion assets. The company finished construction in May 1970 and began operation immediately after. Continuous gradual expansion has led to today's three main factories in Taiwan, boasting a total combined area of about 444,000 square meters, and producing 1,900 tons of polyester products per day. Additionally, the company also commands manufacturing sites in China and Thailand. Shinkong Synthetic Fibers Corporation is specialized in the production of polyester fibers and plastics. Products include textured filament yarn, POY, polyester staple fiber, industrial yarn, polyester chips, PET bottle grade resin, PET bottles, PET preform, engineering polymer and its compounded plastics, polyester film, optical grade films and A-PET sheet.

認證標示

ISO認證 ISO-9001 品質政策

- 滿足客戶需求
- 持續提升品質
- 開創利基產品

ISO 9001

BUREAU VERITAS
Certification



TW111890Q/A

ISO認證 ISO-14001 環境政策

- 遵守法規
- 節能減廢
- 污染防治
- 持續改善

ISO 14001

BUREAU VERITAS
Certification



TW11064E/A



Filament yarn made with recycled polyester
100% post-consumer
CU816703
<http://www.controlunion.com>

化纖類新產品 Chemical Fiber Products

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化纖產品主要包括工業用紗、聚酯半延伸絲、聚酯原絲、聚酯全延伸絲、聚酯棉、聚酯加工絲等產品。本公司孜孜不息投入研究發展已使新纖跳脫傳統紡織應用的領域，今日新纖已在諸如汽車用輪胎簾布工業用紗、安全氣囊用紗、安全帶用紗等工業纖維，以及具有抗紫外線、抗菌、吸濕排汗、蓄熱保溫、耐燃等機能性的纖維如：複合彈性纖維、多機能性纖維(抗紫外線、吸濕排汗)、波浪一字纖維(吸濕排汗及優良手感)、多功能性竹炭纖維、抗起毛球短纖棉、防穿透纖維、輕量化細單尼之加工絲、複合超細纖維、芯鞘型複合纖維、難燃纖維都已商業化量產，統計目前新纖的差異化程度已達百分之七十以上。多年來以提供優良的產品品質與差異化產品深受國內外客戶讚許，新光合纖將發揚實事求是、按部就班、公正透明、互信團隊的核心價值，持續提升競爭力，以成為『永續成長的高科技聚酯產業』之典範。

Chemical Fiber products mainly include industrial yarn, textured filament yarn, POY, polyester staple fiber, and polyester chips. Devoted to continuous research and development, SSFC has expanded its business operations. We now offer not only traditional fiber goods, but also fiber for industrial purposes, such as yarn for tire cord fabrics, yarn for air bags and yarn for seat belts. SSFC also develops functional fibers, such as S/S Elastic Fibers, Anti-ultraviolet & Anti-bacterium fibers, and Wavetech Profile Fibers (moisture absorption/expelling and next-to-skin comfort), and Bamboo Charcoal Fibers, Anti-pilling Staple Fibers, Anti-Penetrating Fiber, Fine Denier DTY, Ultra-fine Micro-fiber Fabric, S/C Conjugated Fibers, and Fireproof Fiber. Now, all of the above have come to mass production and commercialization. According to a rough analysis, the fibers-to-optical diversity ratio is over 70%. Our excellent quality and product diversity spanning many years' service has won high acclaimed from both local and international customers. Shinkong Synthetic constantly keeps improving its competitiveness by pursuing core values ("pragmatism & realism", "a methodical approach", "fairness & transparency", and "team spirit"), becoming a model of the "high-tech polyester industry with sustained growth" in Taiwan.



纖維斷面特殊設計的微細溝槽可迅速傳導水份，具有良好吸濕、導濕及快乾功能，可達到優越的乾爽觸感，抗紫外線功能。
Exhibits good moisture absorption and dissipation properties. Dries fast due to special design of fiber cross-section. Excellent soft, cool and dry touch. Exhibits good anti-UV function.



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CoolTouch Thermo 結合中空與吸濕排汗之纖維斷面設計，所開發的新型聚脂纖維素材。纖維斷面呈中空狀，藉由內部空氣層來阻斷體溫的散失，達到保溫輕重的功能。讓您在炎熱處在炎熱的氣候中，仍能穿的既輕且暖。
CoolTouch Thermo is combined with the section design of special fiber. The CoolTouch Thermo textiles contain perspiration absorbing & quick dry and lightweight warm-keeping effects. CoolTouch Thermo is suitable for the application on sportswear and outdoor wear.



續熱保溫、神奇活力
Feeling Warm! Keeping Energetic! Sport with ShinHot!



RecoTex是新光合成纖維公司新開發的環保聚脂纖維產品。本產品符合Oeko-Tex Standard 100環保認證規範並獲得環保署環保標章之認證以及Intertek Recycled Polyester (RPET) 認證與GRS認證。
RecoTex is an eco-friendly polyester fiber. RecoTex is certified as Green Mark by EPA of Taiwan and meet Oeko-Tex Standard 100. RecoTex is certified by Intertek Recycled Polyester (RPET) Management System. RecoTex is certified by GRS Global Recycle Standard (Control Union).



RecoTex-Cool是新光合纖公司最新研發的瞬間涼感散熱纖維，該纖維以織物的型態接觸肌膚後會產生1~2°C的瞬間涼感，而穿著於身上可降低溫度並能快速將體內熱氣傳導於大氣中，增加在室外時穿著的舒適性。
RecoTex-Cool is a new multifunctional fiber that Shinkong developed by nano technologies. RecoTex-Cool fiber have a better cool feeling, because this material requires relatively higher energy to become warm compare to normal fiber in the market. Wearing RecoTex-Cool clothes can lower the body temperature by 1~2°C and that will offset heat and render a comfort performance to achieve a healthy feeling on the body.



質輕保暖的ThermoTech® 是新光合纖纖維股份有限公司所開發的新型聚脂纖維素材。纖維斷面呈中空狀，藉由內部空氣層來阻斷體溫的散失，達到保溫輕重的功能。讓您在炎熱處在炎熱的氣候中，仍能穿的既輕且暖。
ThermoTech®, lightweight and insulation, is an innovative polyester fibers developed by SHINKONG. The hollow cross-section with special design gives insulation through an interior air layer in the fiber, enhance conservation of heat. ThermoTech® presents state-of-the-art performance for you to face cold winter with light and warm wears.



ZhuTech是新光合成纖維公司新開發的竹炭纖維商品名。應用竹炭微粉化(nano)技術，透過熔紡紡絲製程均勻織入纖維原料中，製成竹炭纖維。具高吸附性，調節性，蓄熱保溫，遠紅外線，除臭抗菌功效及符合環保概念。
ZhuTech is a name of Bamboo charcoal fiber, which is developed by Shinkong synthetic fibers corp. Application Nano technology to Bamboo charcoal grinded to powder which will mix to the raw fiber then spin out Bamboo charcoal yarn. Humidity absorbing, good insulating ability, far-infrared rays, fungus resistant and deodorizing and cohering with eco-awareness.



ECO-FRIENDLY SERIES



- BIO MEG PLANT-BASED PET
- RECYCLED POLYESTER
- PTT SHAPE MEMORY YARN
- LOW TEMPERATURE CATIONIC DYEABLE SERIES
- SOLUTION DYED YARN
- HEAVY METAL FREE POLYESTER YARN

Plant-Based PET **BIO MEG**

Plant-based PET

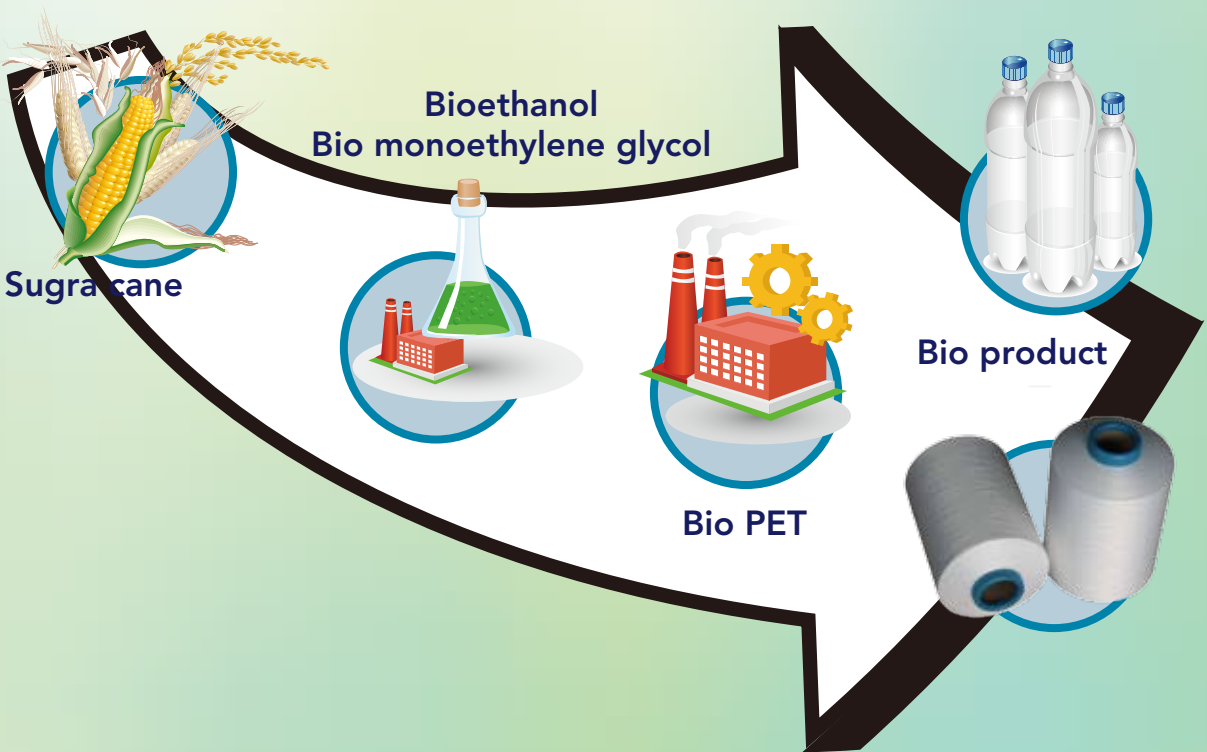
Fossil fuels like oil have significant impacts to the planet's biodiversity, climate and other natural systems.

Sustainably managing our natural resources and finding alternatives to fossil fuels are both business and environmental imperatives. It's encouraging to reduce dependence on petroleum-based plastics.

Shinkong built new technologies in an effort to researching and developing commercial solutions for PET plastic from plants (Bio-MEG).

Plant-based PET are made from sugarcane-derived bioethanol, with the same characteristics as oil-derived PET.

Plant-based PET can be used as an alternative to any conventional PET without adjustment, but with the same characteristics.



RECO[®]Tex

環保聚酯纖維

An environment-friendly fiber

產品特性 Characteristics:

使用100%聚酯再生回收料，經聚合紡絲製程技術生產出具有品質良好的再生聚酯纖維，除可以減少環境的污染及石化原料的使用外，並可降低CO₂及能源的損耗，減少環境暖化的危機——保護地球。

RecoTex是新光合纖所開發之環保聚酯再生纖維，本產品符合Oeko-Tex standard 100之規範並獲得Intertek再生瓶用聚酯系統認證及台灣環保署之環保標章。

Made by exclusive polymerization and spinning process with 100% recycled PET post-consumer bottles as the main ingredient. Using PET bottles can help eliminate the damage these materials cause to the environment, cut down the use of petrochemical materials, lower CO₂, thereby conserve the natural resources and protect our earth.

RecoTex is an eco-friendly polyester yarn.

RecoTex is approved by Intertek Recycled PET certification and got Green Mark approved by EPA of Taiwan and meet Oeko-Tex standard 100 certification.

寶特瓶回收造粒紡絲流程/Recycled process from post-consumer bottle



產品規格/Specifications :

- Staple fiber series
1.3~1.5 De x 38mm ROUND type、"X" cross- section type、hollow type
- SD, BR DTY series
20/12、30/24、50/72、75/36、75/72、75/96、75/144、100/36、100/72、100/96、100/144、150/36、150/48、150/72、150/96、150/144、150/192、150/288、300/96、300/72、300/288、600/192
- CD DTY series
50/48、50/48/2、75/72、75/72/2、100/72
- Flame Retardant DTY
75/36、75/72、150/48、150/72、300/96
- FD DTY series
50/72、75/72、75/36、100/72、150/144
- 2-TONE melange series
150/144 CD 50%、150/96 BLACK 50%
- SD、FD、BR FDY series
50/72、75/36、75/36、75/72、150/48、150/48、150/72、150/144
- QUICK DRY AND MOISTURE MANGEMENT series
75/72、75/48、150/144、150/96、75/96、150/192

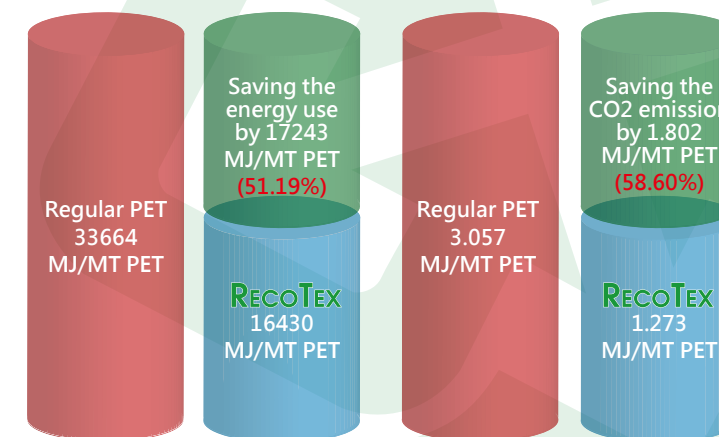
Evaluation of the energy use and CO₂ emissions resulted from the following demonstration.

- The original process: production of non-recycled PET yarns from virgin PTA energy and CO₂ emissions

Energy use (MJ/1MT PET)	CO ₂ emissions (MT/1MT PET)	Process
33,664	3.075	1. PTA&EG energy use 2. polymerization 3. POY (spinning) energy use 4. DTY (Texturization) energy use

- The recycling process: production of recycled yarn from post-consumer bottles:

Energy use (MJ/1MT PET)	CO ₂ emissions (MT/1MT PET)	Process
16,430	1.273	1. polymerization 2. POY (spinning) energy use 3. DTY (Texturization) energy use



PTT shape memory yarn 新世代聚酯纖維

產品特性

PTT纖維具有優良的彈性、手感、垂墜性(drape)及反撥彈性，易洗抗皺、是新世代兼具PET與NYLON特性之纖維。特別適用於梭織布以及具有形狀記憶及回覆性的形狀記憶布種(shape memory fabrics)開發，並適用於各種運動休閒服飾等彈性針織布種使用。

Characteristics

The new generation polyester series' fiber PTT, because of its easy processing, excellent elasticity and dyeing, is estimated to make inroads into part of the conventional Nylon and PET market and to become the most dazzling synthetic fiber in the twenty-first century. Therefore, these are great choices for elastic textile products, especially for woven fabrics and shape memory fabrics.

應用範圍

風衣、夾克、outdoors、sportswear及男女裝布料。

Applications

Dust coat, jacket, outdoors wear, sports wear, male and female clothing fabric



RECOtEX



低溫深染陽離子可染纖維

產品特性

低溫深染陽離子可染纖維是新光合纖最新研發之改質聚酯纖維，在100°C下以陽離子染料染色，比一般120°C陽離子染色更提升深染特性。

- 低溫深染陽離子可染纖維的優勢
- 低溫上色
- 優異的染色堅牢度
- 優異的染色均勻性
- 節省染色能源降低成本
- 低溫染色可避免與SPANDEX或天然纖維混織之織物損傷問題



Product feature

Deep Dyeable Cationic PET is a modified polyester develop by SHINKONG. It can be dyed dark in low temperature and in superior in dye fastness.

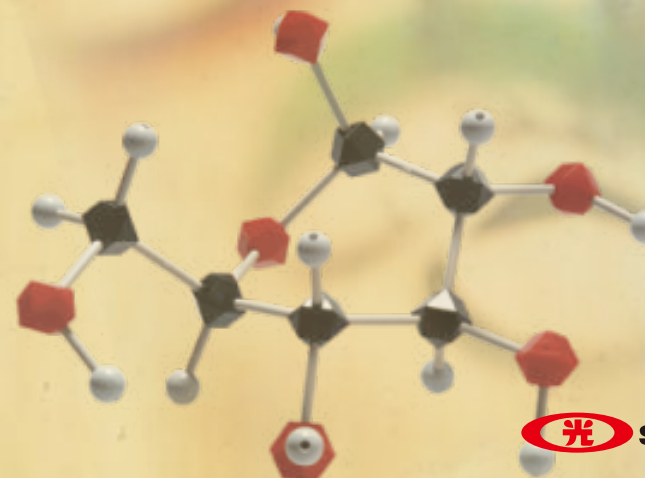
- Deep dyeable
- Quick coloring
- High color fastness
- Better dyeing evenness
- Reduce dyeing energy costs
- Low dyeing temperature can prevent damages when blending with spandex or natural fibers

產品規格

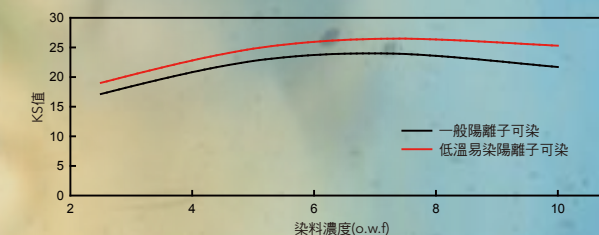
DTY 50/72、75/72、75/144、150/144

Specification

DTY 50/72、75/72、75/144、150/144



一般陽離子可染	低溫易染陽離子可染
KS=16.65	KS=19.63
KS=24.07	KS=26.63
KS=25.05	KS=28.28
KS=24.68	KS=30.21



75/72 DTY 100°C X 30min o.w.f 2.5%、5.0%、7.5%、10.0%

RECO^{TE}X — solution dyed 聚酯色紗

新光合纖長期致力於環境的保護並將環境保護政策列為公司經營的首要項目之一，希望能對地球的環境保護盡一份心力。

我們都知道染整過程是紡織工業中環境污染源之一，染整帶來溫室氣體CO₂的排放，更是造成全球暖化元兇之一。

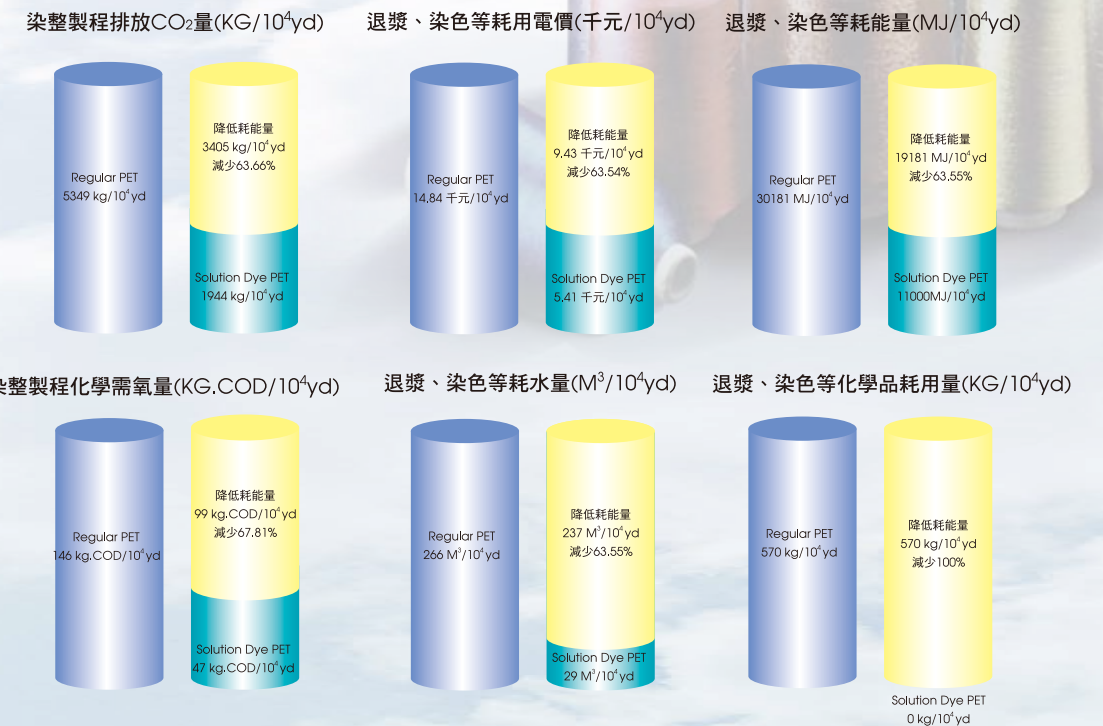
染整過程亦會排放高COD之廢水及化學物資。

Conservation of natural resources is a very important component of SHINKONG's company policy, because SHINKONG wants to take part in protecting the earth. Dyeing process is one of the most polluting stages in textile industry. It brings mass CO₂, that is one of the Greenhouse Gases which causes the result of global warming. Dyeing process also exhausts a lot of water and chemicals, and then discharges waste water with

(下列色卡為參考色，實際色請依據紗線卡)



RECO^{TE}X 與一般色紗染整製程比較圖表：



RECO^{TE}X 可以解決這些問題

優勢：

- 省去大部分染色工程，減少二氧化碳與化學需氧量的排放量，節省水與化學品的使用量。
- 高日光牢度、水牢度、水洗牢度以及染色再現性。
- 保有優異的物化性，適用於任何用途。

Advantage:

- Reducing a lot of emission of CO₂ and COD, and conserve amount of water and chemicals - by omitting most of dyeing process.
- Save the energy consumption.
- More excellent performance - High colorfastness for light, water, washing, and color reproducibility.
- Application without limitation - Excellent quality.

Environment Friendly

Heavy metal free polyester yarn

不含重金屬(Sb free)環保聚酯纖維產品

- 一般而言，商業化之聚酯使用銻觸媒為聚合反應過程中所必須使用之觸媒，銻為重金屬，雖然纖維中殘留幾乎含量非常小之銻並不會對於人體造成任何立即性之危險；但對於地球環境之衝擊仍然存在。
- 有些歐盟針對“ECO labels”規定銻含量檢測必須低於260ppm之標準，更是影響部份出口至歐盟之產品檢測上之困擾。
- 新光合纖開發出完全不含銻之觸媒於聚合反應過程，纖維產品中完成不含銻之重金屬類，完成符合客戶出口至歐盟之需求，並減低對於地球環境之衝擊。
- 且纖維物性與常規聚酯相似，更可以搭配各種機能性功能之結合(如吸濕排汗、抗UV、彈性、抗菌、難燃 等功能)，可以廣泛應用於各種織物設計。
- In the process of polymerization of polyester, the more popular catalyst is a heavy metal called antimony. Though it doesn't pose any risk with exposure to the fabrics, it still makes some impact to environment.
- The European Union has also stipulated in its legislation that antimony (Sb) < 260ppm qualify for the application of "ECO labels"
- Now we develop a new process by using a new type Sb-free catalysts to ensure our products contain no heavy metal.
- They can be used in a wide variety of applications and the property is not very different from regular polyester fibers

Heavy metal free polyester yarn



FUNCTION SERIES

- COOLTOUCH
- COOLTOUCH THERMO
- RECOTEX COOL
- SHINCOOL
- ANTI-SEETHROUGH
- SHINHOT
- THERMOTECH
- ZHUTECH
- SHIN-Σ
- FLAME RETARDANT FIBER
- FINE DENIER YARN
- CONJUGATE YARN



吸溼排汗紗



CoolTouch® Connecting Polyester and Technology

CoolTouch® – 『纖維』與『科技』結合的最佳典範

Quick dry is among one of the characters of CoolTouch®. The special cross section provides a better solution enabling fast perspiration vapor to escape and allowing users to keep dry and stay away from sweating, and the powers of absorbing and widening water in the fabric layers is superior to other fiber materials. Excellent nature cotton touch.

Superior UV blocking technology stops the UVA and UVB damages caused to human bodies. In addition, a mixture of special inorganic particle and organic particle ultra-violet absorb agent as ingredients in the material. According to testing results from AS/NZ S4399 Appendix A-1996, UPF reaches over 45+.

Anti-bacteria materials can be mixed in based on the demand of end products, and the material is within the long lasting anti-bacteria fiber category approved and passed by SEK of Japan. The anti-bacterial ability remains after several washes.

吸溼速乾是CoolTouch® 眾多的功能之一。特殊的斷面溝槽設計，提供了汗水快速宣洩的管道，使您流汗後的肌膚依然保持乾爽。水份在織物層的吸收擴散效果優於其他纖維素材，具有天然棉般的觸感。

優越的紫外線的遮蔽性，可抵擋來自紫外線中UVA與UVB對人體肌膚的危害。原料中可添加特殊之無機粒子及有機紫外線吸收劑。根據AS/NZS4399 Appendix A-1996 所測試的數據顯示，UPF值達到45+以上。

纖維原料可依終端產品需求添加抗菌素材，抗菌效果經日本SEK協會認證通過，屬長效型抗菌纖維。即使經多次洗滌仍具抗菌效果。

CoolTouch® Applications

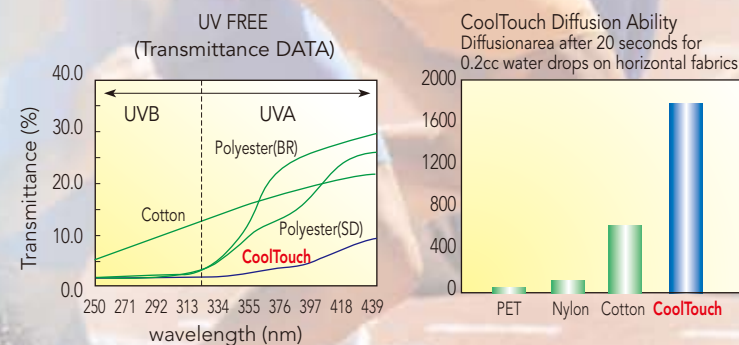
- | | | | | | |
|-------------------|----------------|---------------|------------|---------|-------------|
| • Work wear | • Shirts | • Coats | • Culottes | • Suits | • Underwear |
| • Exercise wear | • POLO shirts | • Hats | • Gloves | • Socks | • Towel |
| • Medical apparel | • Linen sheets | • Duvet cover | | | |

CoolTouch® 產品運用

- | | | | | | |
|-------|---------|------|------|------|--------|
| • 工作服 | • 襯衫 | • 外套 | • 褲裙 | • 套裝 | • 貼身衣物 |
| • 韻律服 | • POLO衫 | • 帽子 | • 手套 | • 襪類 | • 毛巾 |
| • 醫療服 | • 床單 | • 被套 | | | |

Testing Results

測試結果



CoolTouch® Thermo

輕量保溫吸溼排汗纖維

產品特性與應用

CoolTouch是新光合纖最新研發之吸溼排汗、優良快乾效果之聚酯纖維。由於不同纖維斷面設計，新一代CoolTouch纖維更兼俱特殊棉質之手感，CoolTouch Thermo更結合了中空與吸溼排汗之纖維斷面設計，因此具有吸溼快乾、輕量、保溫等機能性纖維追求之良效果。

使用CoolTouch Thermo所開發的織物，具有柔軟舒適的手感及蓬鬆性，並通過ASTMD-1518-85保溫值(clo)的檢測標準，有優良的保溫效果，適合用於Sport、outdoor類服飾等運用。由於Y型及中空斷面之故，使纖維與纖維間具有許多間隙，進而使織物達到輕量20~25%之效果。

Characteristics and Applications

CoolTouch is a serial perspiration absorbing / quick dry fiber developed by SHINKONG. For different cross-section designs, CoolTouch developed into three series, "CoolTouch-I、CoolTouch-II、CoolTouch-III". This yarn not only has excellent quick drying feature but also has different touch feelings.

CoolTouch Thermo is combined with the section desing of special fibers. The CoolTouch Thermo textiles contain perspiration absorbing and quick dry and lightweight warm-keeping effects. The hollow shape of warm-keeping fiber is extremely well remained, and the textiles have the soft, comfortable touch feeling and fleeciness.

It also passes the warm-keeping value (clo) inspection of ASTM D-1518-85 and has the excellent warm-keeping effect.

CoolTouch Thermo is suitable for the application on sportswear and outdoor wear.

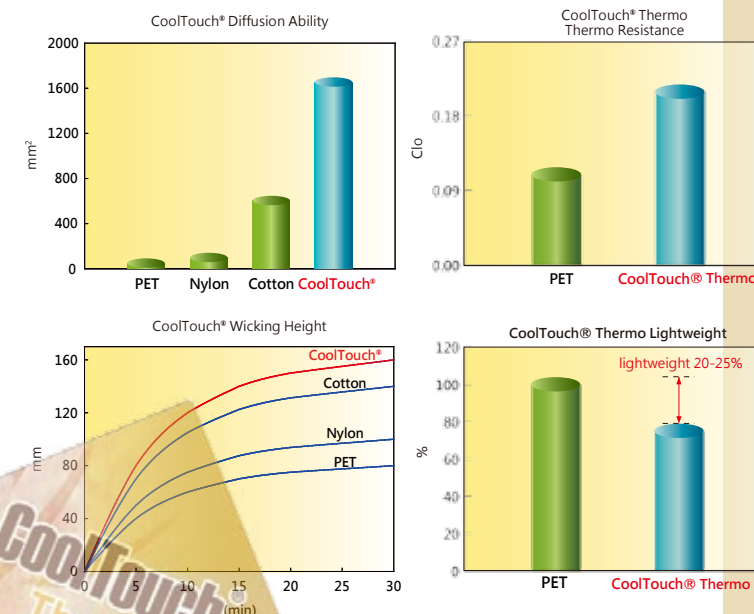


產品測試

Diffusion Ability-Diffusion area of drop of 0.2ml water in 30 sec (by TTRI)

Wicking Height- JIS L1096-1990 6.26.1B (by TTRI)

Thermo Resistance-ASTM D 1518-1985 (by TTRI)



INTRODUCTION OF RECO TEX-Cool COOLING EFFECT

Wearing RECO TEX-Cool functional textiles can lower the body temperature by 1-2°C. It is illustrated by calculation that increasing the air conditioning temperature by 1°C(e.g., from 27°C to 28°C) can save 3-5% electric power and reduce 0.66 kg carbon dioxide.

ShinKong Synthetic Fiber Co. combined with several kind of special material to produce RECO TEX-Cool fiber that will offset heat and raise the quantity of water absorption.

In addition, by taking advantages of the special shaped surface that will off wet water, thus, sweats can be released in a relatively rapid manner. The RECO TEX-Cool fiber have a better cool feeling, because this material requires relatively higher energy to become warm compare to normal fiber in the market. Normally,when we touch any clothing material and have a "cool" feeling, it is due to the humidity within the fiber itself. And because the normal water has lower temperature comparing to a human body, we will feel the "cool" effect. RECO TEX-Cool could contain more percentage of water and the cool effect of special material. For sure, this fabric will provide an extreme cool effect to any fiber.

產品特性

新光合纖公司以特殊的polymer改質及無機粒子的添加技術開發出瞬間涼感散熱纖維，可以有效的調節人體與纖維間微氣候的溫濕度控制。

瞬間涼感散熱型纖維以纖維的型態接觸肌膚後會產生1~2°C的瞬間涼感，而穿著於身上可降低體溫並能快速將體內熱氣傳導於大氣中，增加在室外時穿著的舒適性。而室內空調則可提高1°C，如：27°C升高至28°C，約可節省3至5%之電費。相當於0.66kg的二氧化碳排放量。



APPLICATIONS

The interior decorations of automobiles, aircrafts, and ships
Household textiles

Garments such as spring or summer shirts, suit, long and short pants, sportswear, uniforms for salesmen, the army, police and students, hats, sports socks, silk stockings, feminine sense of beauty (underwear, functional underwear), and pads, environment-friendly energy saving shirt.

產品應用範圍

工業用途：汽車內裝，飛機內裝，遊艇內裝

傢飾用途：寢具，沙發表布

成衣用途：運動服飾，休閒服飾，西裝，襯衫，洋裝，工作服，內衣...等。

Specification/產品規格

75D/72F DTY

150D/144F DTY

TEST ITEM : ASTM D7024 / Touch feeling of warmth or coolness

測試項目：ASTM D7024 / 接觸溫冷感測試

TEST ITEM 測試項目	TEST RESULTS/測試結果		TEST METHODS/測試方法
	Reco Tex-Cool	GENERAL	
Average Temperature(°C) 平均溫度	30.3	31.5	1. ASTM D7024-2004(Modify)(W-in2):200 2. Test Time:10 min 3. Environment temperature:28°C 1. ASTM D7024-2004(Modify)熱流量變化(W/m2):200 2. 測試時間：10分鐘 3. 環境溫度:28°C
Q-max(W/m ²) 接觸溫冷感	0.154	0.126	KES-F7 Thermo Laboll

舒適性親水抗靜電聚酯纖維

產品特性/Characteristics

『舒適性親水抗靜電聚酯纖維』係新光合纖公司以卓越的聚酯改質技術所開發新一代親水性纖維，一般聚酯纖維公定回潮率為0.4%，而親水聚酯纖維回潮率可達2.2%，利用其高吸濕的功能有效調節人體溫度及濕度，也因高親水的特性，可有效的使靜電逸散，達到抗靜電的效果，進而增加人體穿著舒適性。本產品另有開發微多孔纖維(ShinCool⁺)，經減量後回潮率更可達2.3%~3.0%，提供有需要更高的吸濕產品使用。

ShinCool is a new generation of hydrophilic polyester fiber developed by SHINKONG. ShinCool can get high hygroscopic ability for adjusting body temperature and humidity to get comfortable wearing experience. ShinCool can get excellent antistatic function and soft touch feeling than regular polyester.

ShinCool has two types:

Type I ShinCool: can get 2.2% Conventional moisture regain by new technology from SHINKONG, general polyester is only 0.4%.

Type II ShinCool⁺: Micro-porous type, can get 2.3~3.0% Conventional moisture regain after alkali treatment.

產品規格/Specifications

Filament—50/72、75/72、100/144、150/144。

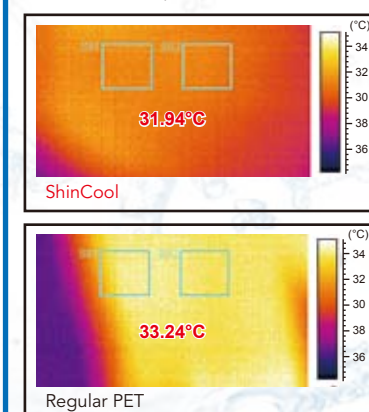
Staple—1.4d×38mm、1.4d×32mm、1.3d×38mm。

Cross section—round、「+」、「Y」、Y+hollow、wave、hollow、4T...

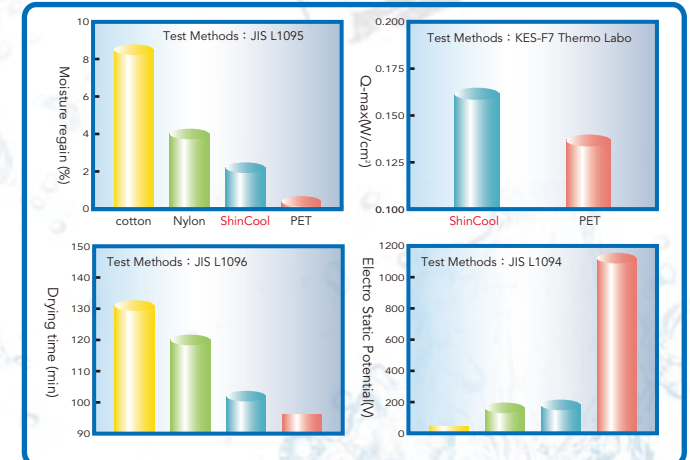
產品測試/Product Test

Test organization : TTRI

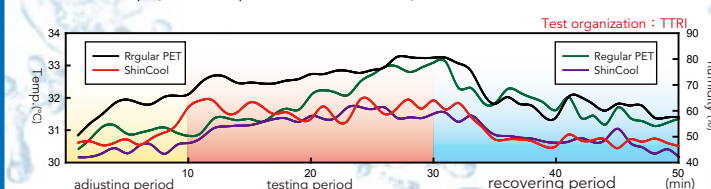
Skin surface Temperature test :



Test organization : TTRI

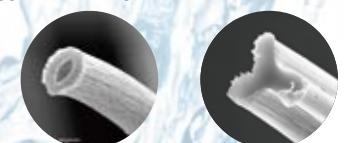


Micro climate physical temperature and humidity meter :



Micro-porous

The fiber surface has the tiny trench after alkali treatment. Conventional Moisture regain can achieve 2.3% ~ 3.0%. Suggestion of weight reduction rate is about 10%~15%.



Fiber cross-section by SEM



Super UV-CUT AntiSeeThrough UV CUT



Super UV - CUT特殊的芯鞘結構將高含量二氧化鈦的超鈍光材質包覆於一般半光原料中，使纖維比一般鈍光纖維更容易織造克服纖維磨損問題，且抗 UV 效果及防透視效果亦比一般鈍光纖維更佳。

測試樣品：75/72 AntiSeeThrough DTY+20D/OP Single Kintted Fabric，57"200g/y color in white
測試方法：AATCC183-2004
測試結果：UPF=240，T-UVA=2.86%，T-UVB=0.28%
測試單位：INTERTEK

Material of Antiseethrough 超鈍光材質
Material of Semi dull 半光材質

UVA/UVB
可見光 Visible Light

Thanks to bi-component polyester complex fiber and its producing method.SHINKONG Anti-seethrough fibers use titanium dioxide to improve fiber permeability resistance, and it also have high UPF value and provide the heat-insulation effect.

Test Sample: 75/72 AntiSeeThrough DTY+20D/OP Single Kintted Fabric,57"200g/y color in white
Test Mothods: AATCC183-2004
Test Results: UPF=240,T-UVA=2.86%,T-UVB=0.28%
Test organization: INTERTEK

Super UV - CUT因添加高含量的二氧化鈦可有效的阻光線，與一般聚酯纖維織物相較之下，Super UV - CUT 具有良好遮蔽效果。如左圖所示，將 Super UV - CUT 穿於身上可完全遮蔽女性的深色貼身衣物。

應用範圍：護士服，醫生袍，泳裝，運動休閒服飾，內衣，窗紗。

These fabrics have the characteristics of preventing the see-through of underwear worn on the inside, and also can be used to make swimming suit has the advantages of good fabric performance, permeability resistance, etc.

Application:
Garments for nurses and doctors. Swimming suit. Sport and casual wear.Curtain. Underwear.

防透視 AntiSeeThrough



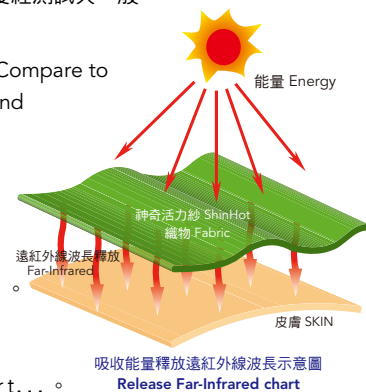
Super UV-CUT Regular

神奇活力紗 ShinHot

產品特性 PRODUCTER FEATURE

新光合纖公司最新開發之神奇活力紗係以最新聚酯改質技術，運用良好分散遠紅外線吸收微粒子，可吸收外界能量進而釋放出遠紅外線波長，賦予人造纖維優異的蓄熱功能，為長效型遠紅外線纖維，不會因水洗而喪失其機能性。經實際測試結果證明，神奇活力紗之遠紅外線放射率、遠紅外線溫升值及特性保溫值(CLO)皆優於一般聚酯纖維，具有較佳的保溫性質。實際人體測試也證明可加速人體的血流速及血流量，穿著於人體有促進血液循環的保健效果。新光合纖公司的神奇活力紗纖維白度經測試與一般聚酯纖維相同，不同於坊間遠紅外線纖維有偏黃的現象。

Nano particle is well dispersed in ShinHot , provide fibrics good far infrared ray release ability. Compare to general grade PET, same unit weight of fibrics made by ShinHot has 30% higher heat storage and insulation efficiency. ShinHot is a good choice for maintain warmly and take care of health applications. ShinHot presents superior washing stability. DPF can be lower than one.



產品應用 APPLICATIONS

- ◎ 貼身衣物、內衣、衛生衣、衛生褲，襪子... ◎ Underwear、hosiery... ◎
- ◎ 運動服飾、休閒服飾、POLO衫... ◎ Sport wear、casual wear、polo shirt... ◎
- ◎ 寢具、床單、床罩、棉被... ◎ Bedding ... ◎
- ◎ 工作服、襯衫、西裝、洋裝... ◎ Work wear、shirts、coats... ◎
- ◎ 護具、護膝、護腕、護肘... ◎ Knee support、Palm brace、Ankle Support... ◎

產品規格 SPECIFICATION

長纖規格 Filament fiber: 75/72、75/72/2、75/96 Y+◎ DTY，75/50 ◎ SDY

斷面：圓形、Y+中空、波浪一字、中空

Cross section: round、Y and hollow、wave、hollow

短纖規格：中空纖維、吸濕排汗纖維、抗起球纖維

Staple fiber：Hollow、moisture management、AntiPilling

神奇活力紗與傳統遠紅外線纖維差異

ShinHot V.S. General F-IR fiber

	神奇活力紗 ShinHot	傳統遠紅外線纖維 General F-IR fiber
紗線色澤 Color	白 white	偏黃 yellow
機台磨耗 machine abrasion	低 low	高 high
纖維細度 dpf	dpf<1	dpf>1

測試報告 TEST REPORT

測試單位紡織綜合研究所檢驗中心 Test organization: TTRI

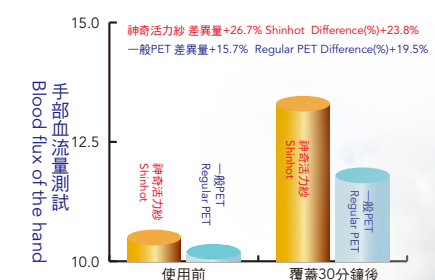
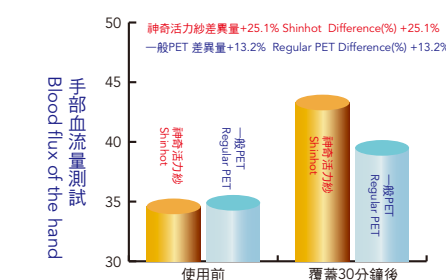
遠紅外線機能性測試 Far-Infrared Test

測試項目 TEST ITEMS	神奇活力紗 ShinHot	一般聚酯纖維 Regular PET
遠紅外線溫升值(°C) Specified Heating Source and Conditions (°C)	7.30	4.51
平均放射率(2-22μm) Average of Emissivity(2-22μm)	0.84	0.79
特性保溫值(clo)	0.15	0.11

纖維色澤測試(color測試)

測試項目 TEST ITEMS	神奇活力紗 ShinHot	一般聚酯纖維 Regular PET
L	84.6	84.5
a	-0.7	-0.5
b	+1.7	+1.4

人體血流量血流速測試 Environmental condition：25±1 °C，60±2%R.H



ThermoTech®

中空纖維

ThermoTech® Makes You A Warm Life

ThermoTech®, lightweight and insulative, is an innovative polyester fiber material developed by SHINKONG SYNTHETIC FIBERS CORPORATION. The fiber cross-section is hollow, giving insulation through an interior air layer in the fiber. Thus, leather surface temperature does not drop fast due to harsh weather condition, enabling heat conservation. It has been proven through testing that fiber hollowness can reach up to 30%. Not only air layer is created to enhance insulation, but also fiber density is lowered to bring in light touch feeling. When ThermoTech® is placed in water, the inherent lightweight nature makes fiber float on water. By adopting new generation of spinning technology, ThermoTech® presents state-of-the-art performance for you to face cold winter with light and warm wears.

質輕保暖的ThermoTech®, 是新光合成纖維股份有限公司所開發的新型態聚酯纖維素材。纖維斷面呈現中空狀，藉由纖維內部空氣層來阻隔體溫的散失，使皮革表面溫度不會因外在氣候的惡劣而迅速流失，達到保溫的功能。經由實驗檢測纖維的中空率可達30%，不僅留住了大量的空氣層，強化了織物保暖的特性，更因纖維比重相對的下降而使布面產生輕盈的手感。當您把ThermoTech®置於水中時，本身的輕質性將使纖維呈現浮於水面的狀態。運用新一代的紡絲技術，ThermoTech®充分展現出優越的產品特性，讓您可以面對寒冷的冬天時，穿的既輕且暖。



ThermoTech® product features

ThermoTech® 產品特色

- Good fiber hollowness
- Resiliency and firmness
- Taslan processing gives fibers cotton-like touch feeling.
- Fabrics have excellent lightweightness and insulation.
- Rich touch feeling, no wrinkling, easy cleaning.
- 纖維擁有良好的中空率。
- 纖維具反撥性、挺性。
- 利用Taslan加工製程可使纖維得到棉質般的觸感。
- 織成的布料具有極佳的輕質保溫性。
- 手感豐厚、不容易起皺、易清洗。

ThermoTech® product specifications

ThermoTech® 產品規格

- SDY & FOY
- 60De/50f
- 75De/50f
- 75De/30f
- 75De/36f

Catch Hollow Keep Thermal



ZhuTech

竹炭纖維

產品特性

應用竹炭微粉化 (nano) 技術，透過熔融紡絲製成均勻練入纖維原料中，竹炭纖維。具高吸附性、調濕性，蓄熱保溫性，遠紅外線，除臭抗菌功效。

Characteristics

Application Nano technology to Bamboo charcoal grinded to power which will mix to the raw fiber then spin out Bamboo charcoal yarn.

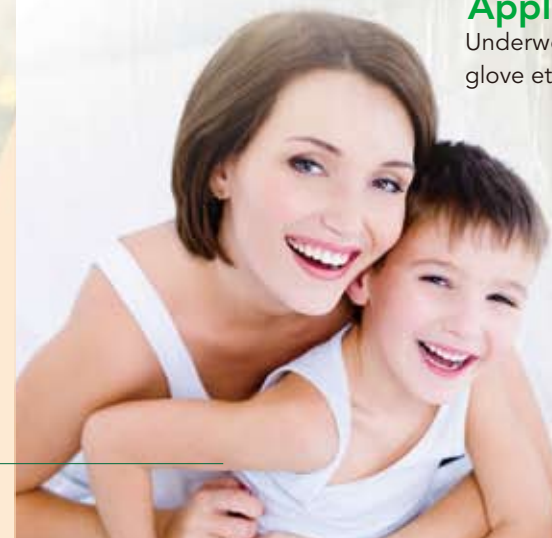
Humidity absorbing, good insulating ability, farinfrared, fungus resistant and deodorizing.

應用範圍

內衣、運動休閒服、寢具、保溫襪、鞋墊及手套等民生保健用品

Application :

Underwear, casual wear, bedding, sock, glove etc. for health care textile.



神奇抗勾紗

神奇抗勾紗新型聚酯纖維成功的解決了抗勾問題 ("SNAGGING" problem)、並具有織物尺寸安定性、舒適柔軟的手感及天然的外觀。並且可以搭配與加強其它的機能性，如抗UV、防透視、吸濕排汗等異型斷面，以適合各種需求

Kangosa Anti-snagging Filament

Shin-Σ is a new innovation of polyester yarn which successful improve the "SNAGGING" problem of fabric and could be with Excellent structural stability、Soft and bulky hand feeling.

Shin-Σ can be with optional functions: UV-cut、Anti-transparency、quick dry and moisture management with special design yarn for the need of any situation.

產品特性

Characteristics

- ★ 具有舒適的彈性及回復力。
- ★ 良好的抗勾效果。
- ★ 良好的尺寸安定性。
- ★ 良好的抗紫外線效果。
- ★ 良好的防透視效果。
- ★ 舒適柔軟及天然的外觀。
- ★ Comfortable stretch and recoverability
- ★ Anti-snagging
- ★ Dimensional stability
- ★ Anti-UV
- ★ Anti-transparency
- ★ Luxurious and natural apperance

產品規格/Product specification

75/36、150/72、50/36、75/72、150/144
75/72 WAVE、50/72 WAVE、100/144 WAVE



難燃纖維

FLAME RETARDANT FIBER

產品特性 product features

使用含有磷化合物難燃劑原料所生產的難燃聚酯纖維，屬於長效型難燃產品，具永久性難燃效果，遇火燃燒時，纖維會微縮形成球狀，而且不會產生鹵素毒氣，是安全性極高的防火素材，開發難燃布種時建議不可與其他紗種交織使用，以免影響織物難燃效果。

This yarn using flame retardant polyester fiber, which contains phosphorous compounded flame retardant, has long-lasting flame-retardation and permanent flame-retardation effects. With burning, the fiber will be lightly crimped and doesn't release toxic halogen gas. Consequently, flame retardant yarn is fire prevention material of ultra-high safety. Avoiding damaging flame retardant effects is this yarn not suggested to interweave with other different yarns.

產品應用 Application

傢飾用途：沙發布，窗簾布，寢具，吊帘。

衣著用途：內睡衣，嬰兒服，特殊用途服飾。

產業用途：汽車內裝材。

Curtains Fabric, Home Fabric, Curtain, Medical Isolated

Curtain, Bedding Sheet, Car seat, Blanket, Clothes



產品測試 Test Report

檢驗項目 Test Items			試驗結果 Test Results					檢驗方法 Test Methods
			餘焰時間 AfterFlame	餘燃時間 AfterGlow	碳化面積 Carbonized	點火時間 Heating	碳化距離 Carbonized	
			秒 time(sec)	秒 time(sec)	平方公分 area(cm²)	秒 time(sec)	公分 dist.(cm)	
現狀防火性 Flammability (As Received)	點火1分鐘 1 minute heating	經向 Warpwise	0	0	6	—	3	CNS 10285 L3196 - 1995 A-1法
		緯向 Fillingwise	0	0	6	—	3	
	著火3秒鐘 3 sec later than fire catching	經向 Warpwise	0	0	6	4	3	
		緯向 Fillingwise	0	0	6	6	3	
	評級 Grade		1級					
布重 標準回潮(g/m²) Conditioned Weight as Received(g/m²)			220.1					CNS 12915 L3233 - 1991
檢驗項目 Test Items			試驗結果 Test Results					檢驗方法 Test Methods
現狀防火性 Flammability (As Received)	接觸火源次數 Number of flame touches to specimen	經向 Warpwise	6					CNS 10285 L3196 - 1995 D
		緯向 Fillingwise	6					
	評級 Grade		1級					

檢測單位：紡織綜合研究所

Fine Denier Yarn

低丹尼超輕薄織物系列

產品特性與應用

低單尼紗系列包含低丹尼加工紗，低丹尼原絲為主，規格介於15D~40D之間，低丹尼原絲及加工紗可用於Tricot、針織、梭織等織物組織，特別適合開發輕量織物使用，如防風夾克、風衣、運動衣料等輕薄織物及高密度織物貼合布。

Characteristic & Applications

Fine Denier Yarn series mainly include fine denier DTY, fine denier SDY and high-tenacity fine denier FOY, whose specifications are between 15D and 40D.

Fine denier SDY and DTY can be applied on Tricot, knitted / woven fabric organizations and so on. It is excellent for lightweight fabrics such as windproof jacket, wind coat, sportswear and high density fabrics for lamination.

產品規格/Specification

DTY	SD	15/12, 15/24, 20/24, 20/36 30/12, 30/24, 30/36, 30/48, 30/72, 40/72
	FD	30/36
	CD	30/24, 30/36, 40/36,
SDY	SD/BR	15/8, 15/12, 20/12, 30/12, 30/24, 30/36, 30/72, 40/36, 50/72
	FD	20/12, 30/12, 40/12
	TBR	30/24, 40/24, 40/36
	CD	40/24, 40/36, 50/36

Conjugate Yarn 複合紗

A Distinctive synthetic fiber in the 21st century – Conjugate Yarn

Comfortable, soft, natural, and healthy appearances have become the lifestyle of modern people with taste. With efforts in research and development as well as product innovation, Shinkong Synthetic Fibers Corporation successfully in recent years combines modern technology with research in consumer products to developing various kinds of effective fabric materials and next generation synthetic fibers superior for fabricating apparels in today's fashion.

A delicate invention – it's better than real

Developed with new generation spinning equipment and printing and dyeing equipment as well as state of the art finishing technology, the fine fibers are separated or dissolved to tens of superthin fiber. The clothes made by the superthin fibers are much thinner and better than real leather products.

The combination of polyester and nylon enables apparel with bright and colorful appearing. A fabric with dear skin like soft and solid touch made by sea/island type super ultra micro fiber yarn, tangerine valve conjugate yarn, and different shrinkage iconjugate yarn is well strengthening Shinkong Synthetic Fibers Corporation's leading position in new synthetic fiber technology.

二十一世紀差異化新合纖 - 複合纖維

舒適、柔軟、自然、健康是強調品味的現代人所追求的衣著條件。近年來、新光合纖股份有限公司不斷地研究與創新，結合了現代科技與民生工業的研究領域，開發各式各樣符合潮流的功能性紡織原料，提供人們多功能的新一代合纖素材。

細緻化的產品呈現 - 比真的更真實

運用新一代的紡絲、假撚設備及最先進的整理技術，將細微的紗線再次分割或溶解成數十條更細微的超細纖維絲。所織成的布料更加細膩，猶勝於真實的皮革製品。

聚酯、尼龍兩種纖維素材的結合應用，使得布面展現出更多元化的色澤。海島複合型超細纖維、橘瓣複合型超細纖維、異收縮複合型超細纖維所呈現出布面柔軟豐厚的麂皮觸感，充分展露出新光合纖股份有限公司在新合纖紡絲技術的領導地位。

High Quality Products

Application

- Product Application: Coats/Culottes/Suits/Hats/Gloves/Leather luggage/Shoes/Cleaning cloths
- Home fabric: Curtains/Sofa/Bedding

產品應用範圍

- 衣著類及相關配件：外套 / 褲裙 / 套裝 / 帽子 / 手套 / 皮包箱 / 鞋類 / 擦拭布
- 傢飾用紡織品：窗簾 / 沙發 / 寢具

產品規格

SPLITTING	PET/PA6	DTY	• 50/36x12 • 80/36x12 • 80/72x12 • 160/72x12 • 250/144x12 • 320/144x12
		DTY with differential shrinkage	• 110/84
	PET/Co-PET	DTY	• 80/72x12
SEA-ISLAND	PET/Co-PET	DTY with differential shrinkage	• 110/84 • 165/94 • 230/168
		DTY	• 80/24x37 • 80/36x37
	PET/Co-PET	DTY with differential shrinkage	• 110/36 • 110/48 • 165/36 • 165/48 • 230/84 • 230/96



STRETCH SERIES



- SHINSPAN MECHANICAL STRETCH SERIES
- SPANTECH SIDE BY SIDE

Shin Span[®]

神奇彈力紗 Magical Elasticity Filament

Shin Span是新光合成纖維公司新開發的新一代聚酯彈性加工紗，採用特殊紡絲製程及加工紗生產技術，具有良好的伸長性及彈性回覆率，適用於梭織布、針織布及經編織物，織物經染整製程後具有優良的彈性及回覆性，適用於各種各種彈性織物使用。

Shin Span the new generation of elastic textured yarn developed by SSFC. The yarn, produced by a special spinning technology, has high elasticity and rebound elasticity. It is excellent material for woven fabrics, knit fabrics, and warp knit materials. These materials retains excellent elasticity and rebound elasticity even after dyeing process; therefore, these are great choices for elastic textile products.

Shin Span[®] 產品特性

織物精染色整理製程處理後，具有良好彈性及回復力。

Shin Span[®] Features

Fabric is to have excellent elastic and recoverability after dyeing and finishing process.

Shin Span[®] 產品運用

- 工作服
- 襯衫
- 外套
- 褲裙
- 套裝
- 貼身衣物
- 韻律服
- POLO衫
- 帽子
- 手套
- 襪類

Shin Span[®] Applications

- Work wear
- Shirts
- Coats
- Culottes
- Suits
- Underwear
- Exercise wear
- POLO shirts
- Hats
- Gloves
- Socks

Shin Span[®] 產品規格

30/24、50/36、50/48、75/36、75/48、75/48十字、75/72、150/72 SD DTY
50/60 2-tone、80/72 2-tone

SpanTech®

彈性纖維

Free yourself With SpanTech®

SpanTech® -- extension of polyester fiber with unlimited possibility! Development in elastic polyester fiber creates versatile functions for polyester fiber. In the past, fabrics are designed to give elasticity through weaving of elastic fibers. However, fabrics lose elasticity in resurfacing defects or redying. The birth of **SpanTech®**, an Innovative elastic polyester fiber, is a new milestone for SHINKONG SYNTHETIC FIBERS CORP. to differentiate fiber development. Instead of traditional viewpoint on polyester fiber, are you ready for **SpanTech®** to enjoy the excellent elasticity and comfort when elasticity becomes one of the most attractive performances for innovative polyester fibers ?

SpanTech® -- 延續聚酯纖維的無限可能！

彈性聚酯纖維的發展，賦予了新型態聚酯纖維更多樣化的功能性。以往的彈性布料設計，需要藉由彈性纖維的交織來表現出布料的伸展性，但隨著布面瑕疵的重修或改染，往往其彈性已不復存在。新型態彈性聚酯纖維**SpanTech®**的誕生，是新光合成纖維股份有限公司朝向差異化纖維發展一項新的里程碑。跳出對於聚酯纖維的陳舊觀點，當彈性已經是新型態聚酯纖維所標榜的功能性之一時，您是否也應該來親自體驗**SpanTech®**產品所帶來優越的延伸性與舒適性呢。

What is SpanTech® ?

SpanTech® is a composite type of polyester fiber developed by SHINKONG SYNTHETIC FIBERS CORP. Thanks to specialized spinning technology for high viscosity and low viscosity polymers, elastic fiber presents a naturally curly appearance with fabric surface giving a rich touch feeling and elasticity. Even without elastic fiber, the fabric surface still has a unique elastic effect without elastic failure.

SpanTech®是新光合成纖維股份有限公司所開發的複合型聚酯纖維，藉由高、低粘度的高分子聚合物的專業抽絲技術，纖維加工後呈現自然捲曲狀態，布面展現出特有的豐厚觸感與彈性。即使布料不添加彈性纖維，布面依然擁有其特有的彈性效果，且不易彈性疲乏。

SpanTech® product specifications and properties

SpanTech® 產品規格及物性

FOY	50De/24f • 75De/24f • 75De/48f • 150De/48f • 150De/96f • 300De/96f
DTY	50/24 • 75/24 • 75/48 • 150/48 • 150/96 • 300/96



SpanTech® product features

SpanTech® 產品特色

1. Fiber treated by dying and finishing offers excellent extendibility and retractability.
2. Rich touch feeling, tenderness and fineness in fabric surface.
3. Elongation up to 30%.
4. Stable redyability prevents fabrics from troubles caused by addition of elastic fibers.
5. Easy dying and finishing, no wrinkling, and easy cleaning.

1. 纖維經染整處理後具有極佳的伸長性及回復性。
2. 布面觸感豐厚、柔軟細緻。
3. 布料彈性伸度可達30%。
4. 織物具安定的染色重修性，避免了布料因加入彈性纖維所帶來的困擾。
5. 織物染整加工處理容易、不易起皺、易清洗。

Notes

注意事項

- Deep dying effect.
- Reserving space for shuttleweaves to obtain desired elasticity after sizing.
- 具深染效果。
- 梭織物需預留幅寬，經定型後可得較佳的伸縮性。

Applications

應用範圍

• Coats	• Jackets	• High density knitwear	• Outerwear fabrics
• Leisure wear	• Fashion wear	• Suits	• Hats
• Pantyhoses	• Shinguards	• Towels	
• Sportswears	• Aerobics wears	• Swimwears	

• 外套	• 夾克	• 高密度針織物	• 外衣布料
• 休閒類	• 時裝	• 套裝	• 帽子
• 褲襪	• 護膝	• 毛巾	
• 運動用衣著	• 韻律服	• 泳衣	

Free yourself with SpanTech



Heather-effect DTY

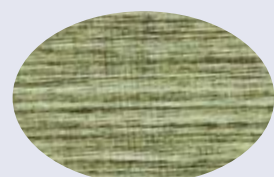
麻灰調纖維

『Heather-effect DTY』----special design with new technology and making by several different raw material for providing two tone or three tone special mélange fabrics.

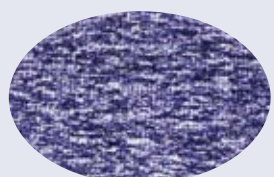
- be able to exhibit brilliant color and excellent hand feel.
- multi color with mélange effect.

The component, denier, filament, luster, cross section and type of mélange effect are customizable.

『Heather-effect DTY』是新光合成纖維公司以特殊的假撚加工技術及原料的搭配運用，開發出一系列不同花色的麻灰調纖維。運用聚酯纖維與陽離子可染纖維的素材以不同比例及不同條紋的的搭配，使得布面發展出更多元的色澤變化，紗線適用於縮織布、針織布及經編織物，織物經染整後呈現雜色調的效果，亦可依客戶的需求導入吸濕排汗、彈性、涼爽或抗勾的機能。



V120522



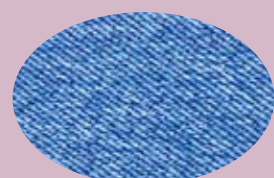
V100222



V120328S



TX08S1



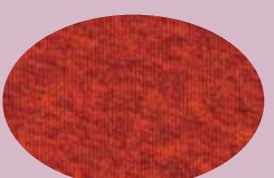
TX07T1



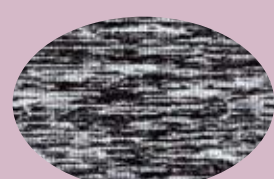
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V100106



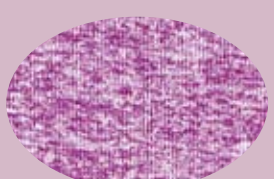
V100428



V091223



V100813



V101220



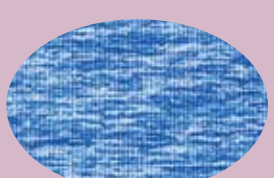
T21018



V100506



V120601



V111107



V110330



STAPLE FIBER SERIES



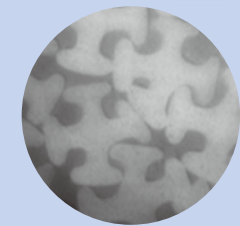
- 4T SHIN SOFT
- STAPLE FIBERS
- ANTI-PILLING STAPLE FIBER

4T STAPLE FIBER Shin Soft 4T

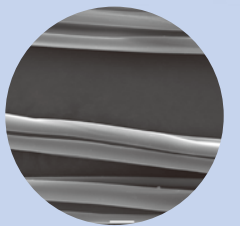
新柔棉

產品特性

- 全球最新差異化、受專利保護且唯一可商業生產特殊棉。
- 4T 結構區分為5大部分 - 4 片T部分 + 1 中心部份，個別柔韌T結構由2個"1"組成，若以2D的4T棉，一個T部分為0.4D，每一個"1"都是0.2D，此提供超細纖維柔軟的來源；內部十字柔韌結構支撐，產生的超細微空間/ 孔隙，除提供整個布料/織物/棉網的彈跳手感外，也是可完全"內部氣候"調整的重要功能設計。
- 開放式地深溝槽設計 強化虹吸效果，提高接觸表面乾爽度。
- 集不同優點於一身，可真正達到溫度 / 氣候調控，節能省碳。
- 規格：1.5D~3D x 32/ 38/ 64 mm，其它長度可客製化生產。



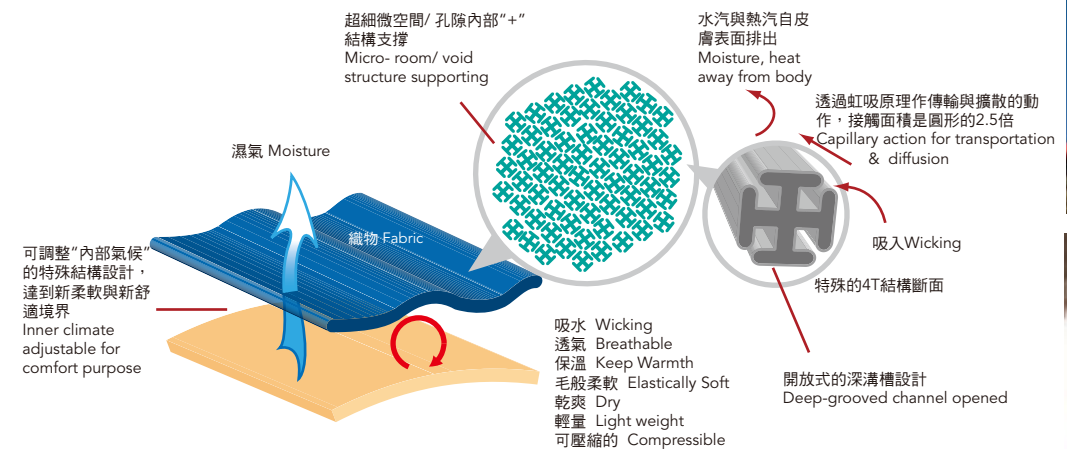
纖維斷面 Fiber cross section
(x 1000 倍)



纖維外觀 Fiber outlook
(x 1000 倍)

Characteristics

- An innovated & patented fiber first come out the market around the world.
- Structure can be counted as 5 parts with 4 lobes' T bone + 1 central. Independently flexible T-bone, consist of 2 pieces of "1", each about 0.2D if 2D's 4T fiber, with microfiber's hand feel and inner "+" structure supporting Ë better elastic and soft performance as well as completely climate adjustable.
- Open and deep-grooved channel structure Ë capillary action enhances a dry feel on the surface.
- Completely moisture control and all functions in one.
- Spec : 1.5D~3D x 32/ 38/ 64 mm, others cut-length on request



應用範圍

應用:服飾、仿毛製品、擦拭巾、不織布及環保羽絨填充製品。

Application :

Application: apparel, wool textile, wipes, nonwoven, filling

Polyester Staple Fiber 聚酯棉

聚酯棉

多樣化、高品質，全線製程均由電腦控制。產品適合與棉花，羊毛或其他纖維混紡，及各種填充材料。

Polyester Staple Fiber

Variety, High quality, all process control by computer. Polyester staple fiber blends well with cotton, wool or other fibers. Also can be like filling material.

CoolTouch抗起毛球棉 Anti-Pilling

抗起球、吸濕排汗、輕量、乾爽
Anti-Pilling, Water transport, Lightweight, Fresh Handfeel

竹炭纖維棉 Bamboo Charcoal Fiber

遠紅外線、負離子、吸濕、抗菌、除臭
Far Infrared Ray, Humidity Absorbing, Fungus Resistant & Deodorizing

神奇活力紗中空短纖維棉 ShinHot Hollow Staple Fiber

遠紅外線、保溫、應用於健康照護
Far Infrared Ray, Keep warm, take care of health applications

中空纖維棉 Spinning Hollow Fiber

抗起球、輕質保暖、手感豐厚與羊毛混紡最佳
Anti-Pilling, Light-weight and insulative, rich handfeel, blend well with wool

品名 TYPE	纖度 Denier	光澤 Luster	長度mm Cut Length	強度 Tenacity	伸度 Elongation	斷面 Cross Section	用途 End Use	說明（特性） Description
抗起毛球棉 Anti-Pilling	1.4	SD	38	2.60.3	224	實心 Regular	運動服、休閒服、POLO衫、內衣褲、衛生衣 Sportswear, Casualwear, Polo Shirt, Underwear	●吸濕排汗抗起毛球棉 Water Transport & Anti-Pilling
	1.4	SD	38	2.80.3	184	十字 Cross		
	1.5	SD	38	2.80.3	204	十字 Cross		
	1.5	SD	38	2.60.3	204	中空 Hollow		
	2, 2.5 3	SD	75~125	2.40.3	255	中空 Hollow 十字 Cross	各類毛織品 Wool Textiles	●輕量保暖抗起毛球中空棉 Lightweight+Warm Keeping+Anti-Pilling
竹炭棉 Bamboo Charcoal	1.5	SD	38	50.5	215	中空 Hollow	保溫襪、圍巾、內衣褲、衛生衣 Thermal Sock, Handkerchief, Underwear	竹炭含量1.2%、中空率20%↑ Bamboo Charcoal Content 1.2% Hollow Ratio 20%↑
	1.7	SD	38, 51	3.90.5	245	十字 Cross		
	6	SD	51, 64	3.20.5	458	中空 Hollow	寢具布料及鞋墊、抱枕等民生保健用品 Bedding, Shoe-pads, Cushion	竹炭含量1.2%、中空率30%↑ Bamboo Charcoal Content 1.2% Hollow Ratio 30%↑
紡紗用棉（實心） Spinning Use	1.3	SD	38	6.50.6	246	實心 Regular	運動服、休閒服、POLO衫、內衣褲、衛生衣 Sportswear, Casualwear, Polo Shirt, Underwear	T/C、T/R、T/W、SPUN
	1.4	SD	32, 38	6.20.6	266	實心 Regular		
	1.5	SD	38	5.90.6	326	實心 Regular		
	1.7	SD	38, 51	6.40.6	286	實心 Regular		
黑色棉 Dopedyed Black	1.5	SD	38	6.30.6	246	實心 Regular	運動服、休閒服、內衣褲、衛生衣 Sportswear, Casualwear, Underwear	淺灰、深灰色系 Light Grey, Dark Grey
	2	SD	51	5.80.6	306	實心 Regular	不織布、運動服、休閒服、內衣褲、衛生衣 Non-woven, Sportswear, Casualwear, Underwear	淺灰、深灰色系 Light Grey, Dark Grey
	3	SD	64	50.5	458	實心 Regular		
紡紗（中空） Spinning Hollow	1.5	SD	38	6.50.6	226	中空 Hollow	運動服、休閒服、POLO衫、內衣褲、衛生衣Sportswear, Casualwear, Polo Shirt, Underwear	輕量、中空率20%↑、保暖 Lightweight, Hollow Ratio 20%↑、Thermal Insulation
4T棉 4T Fiber	1.5	SD	38.51	5.50.5	256	4T	仿毛服飾、擦拭巾、運動服、休閒服、不織布、填充棉 Wool Like, napkin、sport wear、Casual wear、non-woven、Padding	吸水、透氣、保溫、手感柔軟、乾爽、輕量 Excellent Water absorption, warm, soft touch, dry touch, light weight
	2~3	SD	51	5.20.5	305	4T		
難燃棉 Flame Retardant	1.4	SD	38	6.90.6	236	實心 Regular	家飾紡織品、衣料紡織品 Home & Comfort textiles, Clothing textiles	磷含量（P%）5300ppm、2500ppm、1500ppm
超細纖維棉 Micro Fiber	0.8~1.0	SD	38	7.50.6	184	實心 Regular	衣料用、刷毛布用 Cloth, Fleece	手感柔軟、懸垂性佳 Soft Touch, Superdrape
超高強度棉 High Tenacity	1.2	SD	38	7.20.6	204	實心 Regular	線紗、衣料用 Yarn, Cloth	強度（Tenacity）7.2g/D↑
	1.2	SD	38	7.30.6	194	十字 Cross	吸濕排汗面料 Water transport Fabric	強度（Tenacity）7.2g/D↑
一般棉 Regular Fiber	2	SD	51, 64	5.90.7	326	實心 Regular	不織布：濾材、襯墊、隔音 運動服、休閒服、內衣褲、衛生衣 Non-woven: Filter medics, Padding, Soundproof Sportswear, Casualwear, Underwear	較高的表面接觸面積、優良的挺性及彈性 High Surface area, Good Stiffness and Resilience
	2.5	SD	51, 64	50.7	446	實心 Regular		
	3	SD	51, 64	5.40.6	488	實心 Regular		
品名 TYPE	纖度 Denier	光澤 Luster	長度mm Cut Length	比容積 Tenacity Volume	回覆率 Elastic Recovery	斷面 Cross Section	用途 End Use	說明（特性） Description
四孔棉 4 Hole	6	SD	64, 51	64	90	四孔 4Hole	棉被、枕頭、睡袋、家俱墊、寢具 Bedquie, Pillow, Sleeping bag, Furniture cushion, Bedding	柔軟、保暖 Soft handfeeling, excellent heat insulatingability
	7	SD	64, 51	75	92	四孔 4Hole		
複合棉 High Void Conjugate	3	SD	64	68	93	中空 Hollow	玩具填充、寢具、衣服內襯、家俱墊。 Toy Padding, Badding, Padding, Furniture cushion	中空率30%、輕量彈性佳保暖 Hollow Ratio 30%、ightweight、Thermal Insulation
	7	SD	64, 76	82	93	中空 Hollow		
	15	SD	64	80	93	中空 Hollow	玩具填充、寢具、睡袋、衣服內襯 Toy Padding, Badding, Sleeping bag, Padding	
	12	SD	64	80	93	中空 Hollow		
一般棉 Regular Fiber	6	SD	51, 64	56	90	實心Regular	不織布：濾材、襯墊、隔音 Non-woven: Filter medics, Padding, Soundproof	較高的表面接觸面積、優良的挺性及彈性 High Surface area, Good Stiffness and Resilience
	15	SD	32, 51, 64	56	90	實心Regular	玩具填充、寢具、衣服內襯、家俱墊 Toy Padding, Badding, Padding, Furniture cushion	

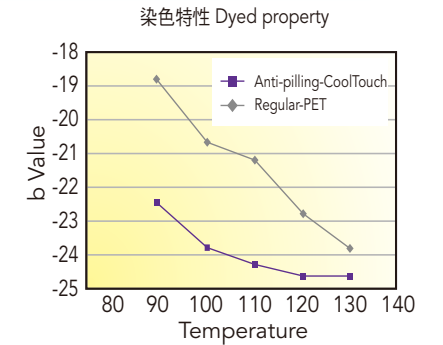
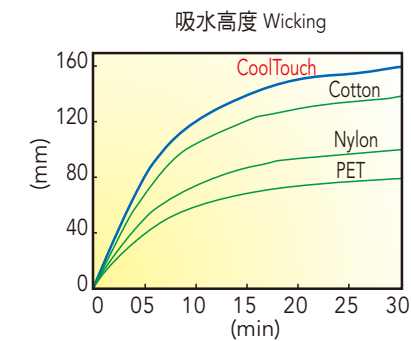
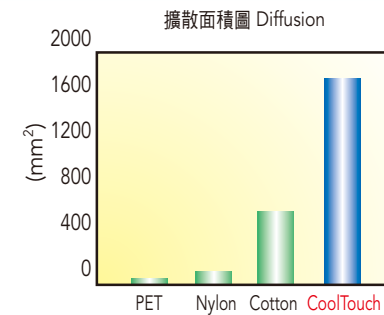
Anti-pilling is second to none

CoolTouch 除了利用截面異化增加纖維的抱合力防止纖維鬆散而露出尾端外，同時應用聚合物改質的方法，使纖維強度及伸度降低，徹底解決衣物起球的問題，卓越之抗起球性帶來織物潔淨的外觀。CoolTouch更擁有快速的吸濕、速乾性，保持身體乾爽、舒適與健康的傑出機能如巨星般的風采吸引了眾人的目光。

CoolTouch takes advantage of a unique cross section and the latest proprietary polymer modification technology; which results in lower strength and lower elasticity of the fiber. The weave produced does not easily cause pilling. This superior pilling resistance results in more pure finish. The CoolTouch profile renders a moisture absorbing and quick drying performance to achieve a dry, comfort and health feeling on the body. These special functions are like a superstar that attract all the people.

產品特性 Features:

- 優越抗起球性級數達3級以上。
- 採用最新開發先進聚合改質專利技術所生產，具有優良抗起球功能，纖維強度比一般 PET低甚多，紡紗時需注意並配合纖維低強度特性。
- 特殊之十字斷面，除有抗起球特性外，並具有良好的吸濕排汗功能。
- 中空斷面，除有抗起球特性外，並具有質輕保暖的功能。
- 具天然棉的柔軟乾爽手感及良好的吸濕排汗效果。
- 不含陽離子改質成份，因此在使用上與一般分散性染聚酯產品幾無差異，染色使用一般條件即可，較陽離子型產品具有更優異的染色效果及價格競爭力。
- Superior pilling resistance is higher than level 3.
- CoolTouch is polyester staple fiber that displays an excellent pilling resistance property due to the latest proprietary polymer modification technology. Traveler and winding speeds should be reduced accordingly because the fiber has lower strength than ordinary PET.
- The specially designed of fiber cross-section profile renders it with an excellent pilling resistance property, and it also displays good moisture management.
- The hollow cross-section profile renders the material with an excellent pilling resistance property, and it also displays excellent lightweight and insulating properties.
- Like cotton, it is extremely soft, dry to the touch and displays excellent moisture absorption.
- CoolTouch can be dyed with disperse dyes just like normal polyesters without special cautions. The price and dyeing effect are highly competitive when compared with the CD type.



產品應用 Application:

- 抗起球性吸濕排汗型短纖:
用途: 純紡或與其他纖維混紡(如棉、麻、嫫縐、聚酯棉等)。
特點: 具有吸水及呼吸反抗起毛球的特性，彈性回復及優雅的懸垂性風格獨具。
- As an Anti-pilling moisture transferring staple fiber:
Uses: Spinning or blending with other fibers. (Such as cotton, linen, rayon, polyester and so on.)
Features: Properties include moisture absorption and pilling resistance, high recovery of elasticity and richer drapes.
- 抗起球性中空毛型短纖:
用途: 純紡及與各類毛混紡用紗(如羊毛、兔毛、壓克力棉等)。
特點: 具有良好的中空率、反撥性、挺性。織成的布料具有極佳的抗起球性及輕質保暖性。
- As an Anti-pilling hollow wool staple fiber:
Uses: Spinning or blending with other woolly fibers. (Such as wool, lapin, acrylic and so on.)
Features: Good fiber hollowness, resiliency and firmness. Fabrics have an excellent pilling resistance, lightweight and insulating properties.

參考物性 Typical properties

規格 count	強度 g/d	伸度% E%	彎曲數 crimp no.	彎曲度% crimp degree	彎曲穩定度% crimp stability	熱縮% HAS %
1.4-1.5de	2.8±0.3	18±4	11±2	10±2	65±5	2-4

產品終端用途 End uses:

- 運動服、休閒服。
- 內衣褲、衛生衣褲、襪類。
- 寢具。
- 針織品、梭織品、毛織品。
- Sportswear & Casualwear.
- Underwear & Hosiery.
- Bedding.
- Knits、Woven & Wool textiles.

INDUSTRIAL FIBER

- POLYESTER TENACITY YARN
- HMLS YARN

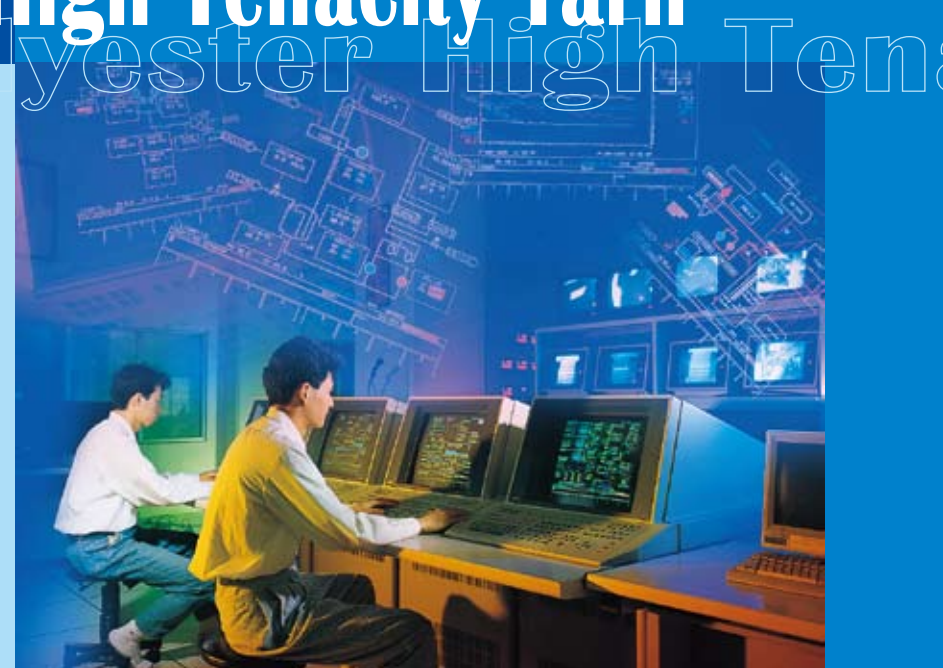
Polyester High Tenacity Yarn

SHINKONG Industrial Yarn

Industrial fibers are widely applied to various consumer products. Shinkong Synthetic Fibers Corporation endeavor to emphasize on R&D and innovation capability to provide customers with a variety of industrial yarn products. The fibers' high tenacity, durable, and lightweight qualities have not only achieved international recognition from down stream clientele, but provided users with best and effective utilization. A rich variety of products introduced by SHINKONG Industrial Yarn are your best choices!

新一代高強力纖維

民生產業皆是工業用纖維所能涵蓋的範圍。新光合成纖維股份有限公司歷年來不斷的研發與創新、提供了各式各樣的工業級紗線產品。纖維本身高強力、耐久性、及輕量化的優越表現，得到國內外下游廠商的極高評價與肯定、亦給了使用者最佳的展現空間。無論是何種用途，SHINKONG Industrial Yarn多樣化的產品種類、將是您最佳的選擇！



高強力聚酯紡延絲 工業用紗

Product Characters

The products made by our company are comprised of high density PET with the following characteristics:

1. High tenacity
2. Low exotherms
3. Low crimp
4. High glass transition Temp.

產品特色

本公司所生產之工業用紗以高分子量PET為主，具有下列特性：

1. 高強力。
2. 低收縮率。
3. 低捲曲性。
4. 高玻璃轉換溫度。

Product Application

Polyester industrial yarn with high tenacity and low exotherms is widely applied to products such as Tire cord fabric, v-belts, conveyor belts, vehicle cover cloths, airbags, water resistant cloths, tents, and tarpaulins such as roof cover cloths, as well as seat belts, fishing nets, ropes, canvas, dome, pipe, durable goods, anti-etching nets.

產品應用範圍

高強力、低收縮率聚酯工業用紗之產品應用有輪胎簾布、V-BELTS、輸送及傳動帶、車用覆蓋布、安全氣囊、防水布、帳篷、屋頂遮蓋布等工程用塗層織物、安全帶、漁網、纜繩、帆布、拱頂、管類、牢固材、路基床、抗浸蝕網..等用途。

Lot No.	Color	
VHA0AD	金	Gold
VHA0AY	黃	Yellow
VHA0CO	螢光橘	Orange
VHA0AE	螢光橘紅	Reddish orange
VHA0AR	紅	Red
VHA0AN	藍	Blue
VHA0AG	墨綠	Teal
VHA0AK	黑	Black

Industrial Fiber

HMLS yarn

Product Characters

- High Modulus, high tenacity, low shrinkage, excellent hydrophobic

產品特色

- 高模數低伸度、高強力、低收縮率及超疏水性等優質特性。

Application

Finish Net, Tarpaulin, Conveyer, Safety Belt, Sawing Thread, Rope, Geotextile.

應用範圍

- 漁網
- 帆布
- 輸送帶
- 繩索
- 汽車安全帶
- 縫合線
- 地工織物

