



SIMPLIFYING COMPLEXITIES AMPLIFYING POSSIBILITIES



# KNITTING & DYEING

Revolutionary Solutions For Design Optimization

針織布事業群

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# FENC<sup>®</sup> Water Free Dyeing

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100% Water free textile dyeing



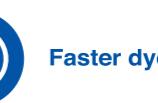
Water-free



Eco-friendly



Energy saving &  
Reduced CO<sub>2</sub>



Faster dyeing

FENC<sup>®</sup> has pioneered the use of supercritical carbon dioxide (scCO<sub>2</sub>) for a water-free dyeing process.

FENC<sup>®</sup> Water Free Dyeing evenly delivers dyestuff directly into polyester fabrics for dynamic and vivid color pantones. Our process not only eliminates waste water but also significantly reduces the energy use and time required to dye fabrics.

## Benefits of FENC<sup>®</sup> Water Free Dyeing:

- Zero water use to dye fabrics
- Zero discharge of wastewater
- Reduced dye time by around 40%



# FENC® TopClean

## FENC PFC-free Soil Release Yarn



Easy Care



Soft Hand



Superior wash durability

### Why?

Perflourinated and polyfluorinated chemicals (PFCs) are incredibly resistant to breakdown, and will bio-accumulate into the eco-system. Moreover, research has shown that PFCs, including PFOA and PFOS can cause harm to reproduction, and promote the growth of tumors and a host of health problems to human beings.

### Solution

World's first PFC-free soil release polyester yarn-TopClean removes soil & stains effortlessly when soaked in water and provides a soft & breathable comfort wear after washing.

### Performance

#### Soil Release Test AATCC 130 (SGS)

| Stain        | Grade (1x Wash) | Grade (20x Wash) |
|--------------|-----------------|------------------|
| Corn Oil     | 4               | 4.5              |
| Black Tea    | 3.5             | 4.5              |
| Tomato Sauce | 4.5             | 4.5              |
| Soy Sauce    | 4.5             | 4.5              |
| Red Wine     | 3               | 3.5              |



Soil Release, Easy clean & Eco-friendly

### Why?

全氟碳化物和全氟化合物(PFCs)難以分解，且會累積至生物體內並進入生態系統中。除此之外，研究顯示PFCs，包含PFOA和PFOS會導致生殖系統的危害及促進腫瘤生長並干擾內分泌，影響人類的健康問題。

### 解決方案

全世界首創無氟去汙紗線-TopClean，新一代環保聚酯產品，用清水浸泡即能簡單除去泥土及汙漬。提供使用者乾淨、柔軟的舒適感。



# FENC Snag Guard

遠東抗勾紗織物



Solvent-free &  
Water-free



Superior wash  
durability



Soft touch



Eco-friendly



Energy saving &

Reduced CO<sub>2</sub>

## Why?

Generally, stitch loop of knitting fabric get snagged easily and the snags particularly happen on the back side of terry construction. Better snagging resistance can give clothes nice look and longer warranty.

## How?

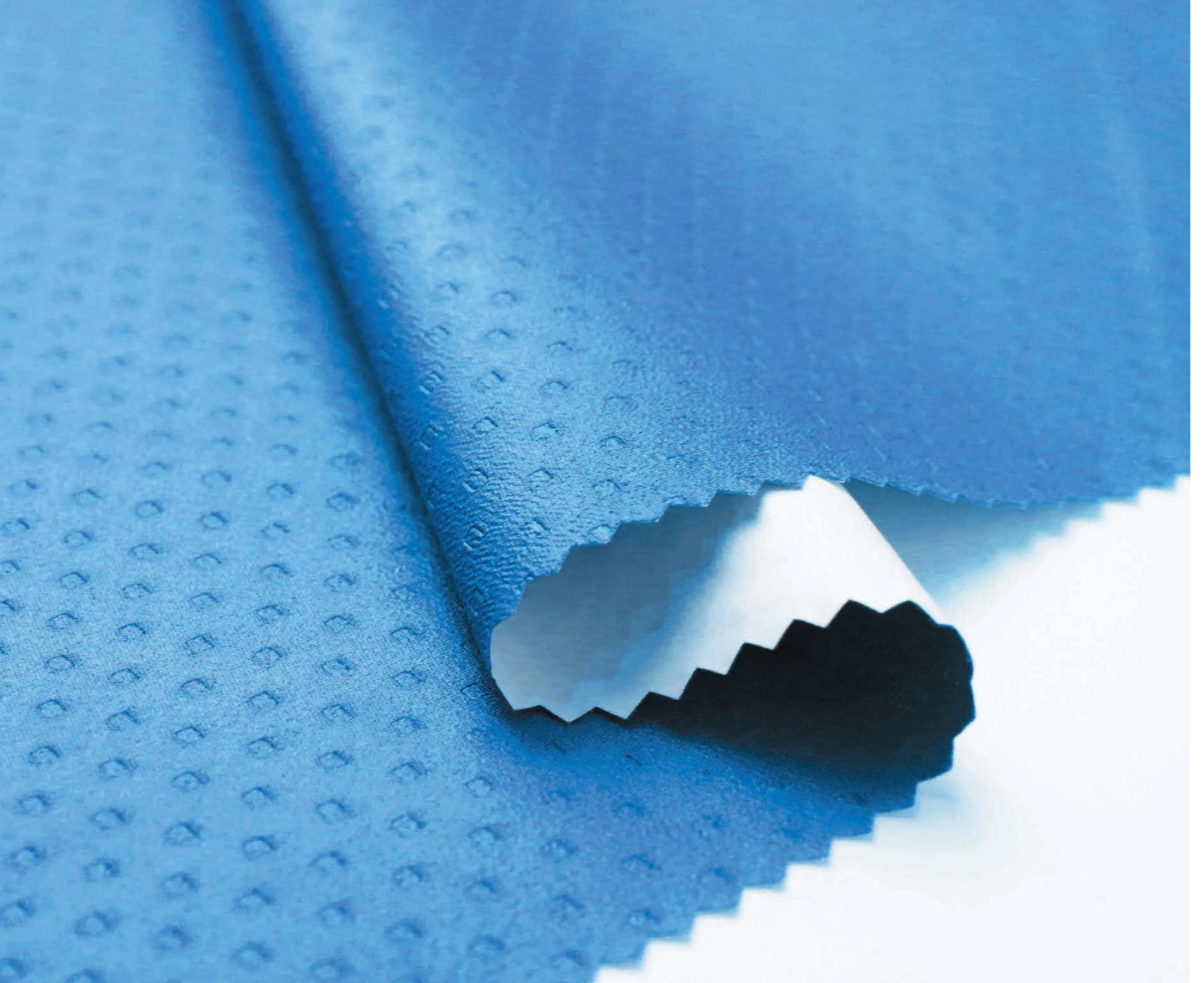
FENC Snag Guard is an innovative solvent-free finishing which can enhance the snagging resistance effectively with excellent durability after launderings. The process is sustainable and the finished fabrics keep the same soft touch hand feel as untreated.

## Why?

針織布料組織與紗環易產生勾紗的問題，尤其是毛巾刷毛布的背面。  
強化抗勾紗的功能可減輕布料受損的狀況，使衣物更持久耐穿。

## How?

遠東抗勾紗織物為一無水無溶劑的環保加工製程，可有效提升抗勾紗的能力，且耐洗性佳。織物加工後保有加工前的柔軟手感，加工過程節水、低耗能，同時替環境永續盡一份心力。



# FENC 3D Lamination

遠東立體防水透濕貼合織物



Breathable



Durable water repellent



Wind proof



Superior wash durability

## How?

FENC 3D Lamination applies microporous polyurethane membrane on lightweight base fabrics. It gives better moisture breathability for more comfort as well as superior water resistance compared with traditional non-porous hydrophilic membrane. Brilliant 3D look comes from post-finishing without lowering waterproofness and breathability.

## Features 特色

- Excellent water resistance and moisture vapor breathability
- Dimensional look and give dry touch next to skin
- Durable for home launderings
- Non-swelling

## How?

有別於傳統無孔型薄膜，使用微孔型防水透濕膜與輕薄的布料進行貼合。除了具備相當的防水度之外，優異的透濕性提升穿著的舒適度。透過特殊後加工產生立體紋路效果，能保有織物原有的高機能性，更展現獨一無二的質感。

- 防水透濕
- 織物立體化
- 耐洗性佳
- 不膨潤



# ZERO SOLVENT COATING & LAMINATION

SIMPLIFIED PROCESS · AMPLIFIED OUTCOME

## ZERO SOLVENT COATING & LAMINATION

### Zero Discharge of Hazardous Chemicals



Solvent-free &  
Water-free



Superior wash  
durability



Eco-friendly



Energy saving &  
Reduced CO<sub>2</sub>



Unrestricted  
substrate

#### Performance

FENC developed a zero solvent zero water use coating and lamination technology. FENC Zero Solvent Coating & Lamination (ZSCL) simplifies the entire coating & lamination process and allows for:

- Superior wash durability
- Enhanced performance
- Unlimited functional possibilities
- Precise control of material add-ons

#### Environmental

Benefits of replacing conventional solvent-based and water-based process to FENC Zero Solvent Coating & Lamination process include:

- Zero Water use
- Energy saving up to 70%
- Zero emission of harmful volatile organic compounds (VOC's)
- Zero pollutants discharged
- Simplified curing and increased overall productivity

遠東新世紀在針織布的塗佈及貼合製程上發展出無水、無溶劑的新科技。這項技術簡化以往塗佈及貼合的加工過程，並具備以下特色：

- 優異的耐洗性
- 機能強化
- 可應用於多種功能
- 品質穩定

將傳統溶劑型及水性加工製程以遠東新世紀無水、無溶劑加工製程取代的優點包含：

- 無需耗水
- 有效節能減碳
- 零排放有害的揮發性有機化合物
- 零排放污染物
- 易熟成

#### Features

3D texture  
Abrasion resistant

Breathable  
Moisture management

Waterproof  
Windproof