



**Tah Tong Textile Co., Ltd.**

大東紡織股份有限公司

- 1. Introduction**
- 2. Capabilities**
- 3. 2023 Eco Innovations**
- 4. Certification**

# 1. Introduction



TAHTONG

# 1.1 Tah Tong Innovation and Quality from Yarn Forward

## LEGACY

- Founded in 1958
- 1989 Public Listing on Taiwan Stock Exchange
- 2014 Established Vietnam Presence with Yarn Mill 1 ; 2016 Established Vietnam Yarn Mill 2

## PRODUCTS & MARKETS

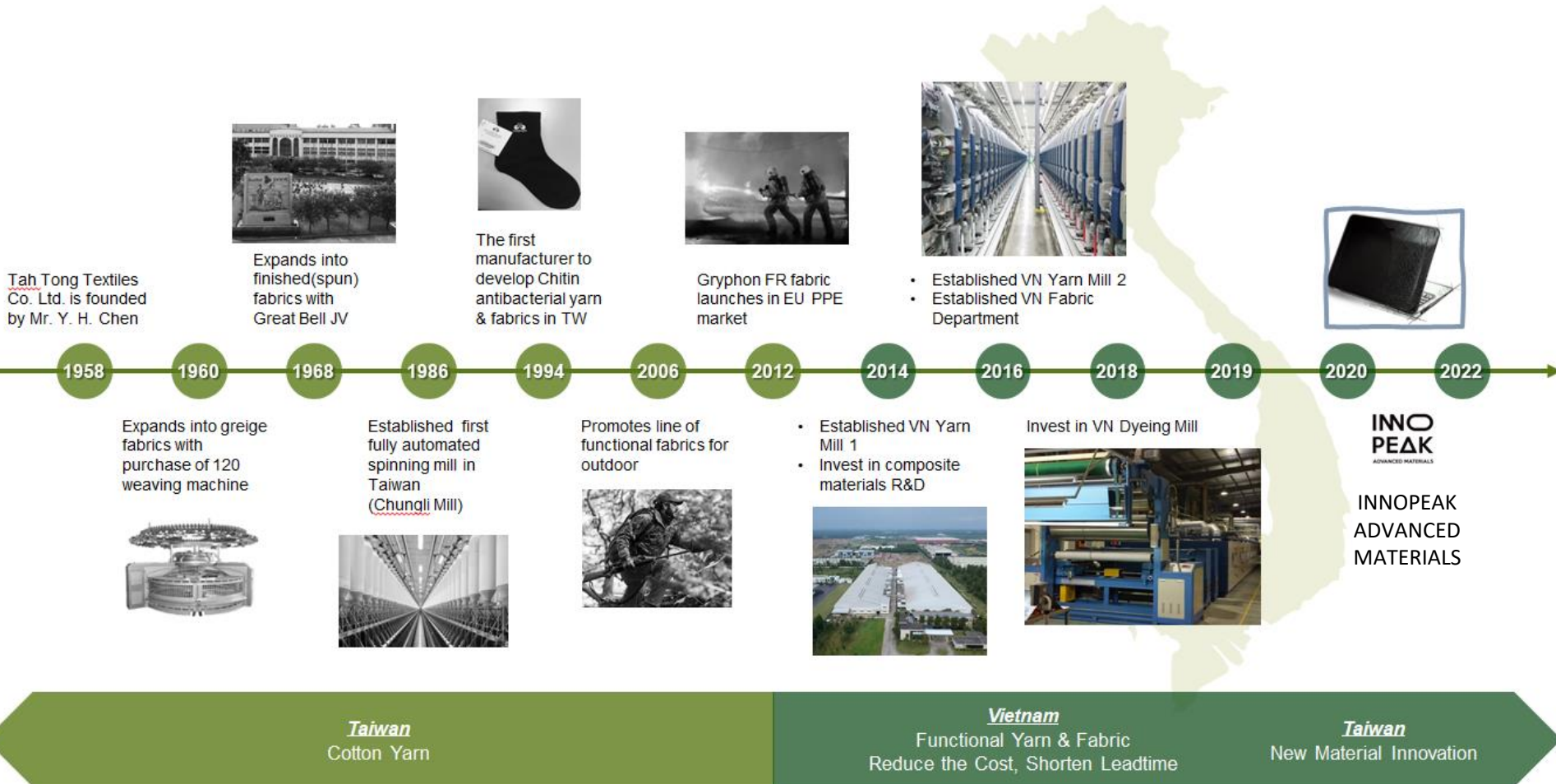
- Bespoke Yarns & Fabrics
- Focus on Active Fashion, Performance, Technical Markets

## CAPABILITIES

- Total of 6 Mills in Group in Taiwan & Vietnam
- 26 Partner Mills
- 950 Employees and 40 Technical Professionals

# 1.2 Tah Tong Selected Milestones

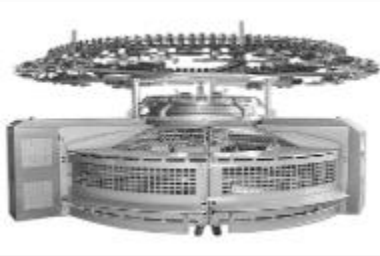
With over 60 years of experience, Tah Tong Group has gradually shifted its focus towards **value-added textiles** and is now actively developing a strong footprint in Vietnam



# 2. Capabilities




TAHTONG



**Our usage of the most professional methods of spinning, knitting, and weaving yarns and fabric allows us to more adequately achieve our ultimate goals of provide quality and style to the wearer**



## 2.1 Tah Tong Vietnam – Greige Capabilities

| Knit               | Product Types  | Main Vendor Capabilities   |
|--------------------|--|--|
| Main Construction  | Single Jersey  | 5+ partner mills; 176 machines; 800 tons/month                                     |
|                    | Double Jersey  | 3+ partner mills; 36 machines; 350 tons/month                                      |
|                    | Fleece   | 3 partner mills; 30 machines; 330 tons/month                                       |
|                    | Terry  | 3+ partner mills; 20 machines; 150 tons/month                                      |
|                    | Stretch  | 3+ partner mills; over 40 machines and 200 tons/month                              |
| Other Construction | <ul style="list-style-type: none"> <li>● Interlock</li> <li>● Mini-Jacquard</li> <li>● Engineer-Jacquard</li> <li>● Pique</li> <li>● 1X1 Rib, 2X2 Rib</li> </ul> |  |
| Woven              | Product Types  | Main Vendor Capabilities   |
| Main Construction  | Plain  | 750 thousand yd/month  |
|                    | Twill + OP   | 1.5 million yd/month   |
|                    | Satin  | 750 thousand yd/month  |
|                    | Totally 3 million yd/month   |  |



## 2.2 Tah Tong Vietnam – In-House Dyeing Capabilities





Tah Tong dyeing mill capabilities

|        | Item                        | Equipment  | Monthly Volume |
|--------|-----------------------------|--|----------------|
| Dyeing | Heavy Weight + Spandex      | Long Type<br>High Temperature, High Pressure<br>Downward Circulating, Low Tension  | 138,000 KG     |
|        | Light Weight + Spandex      | Round Type<br>High Temperature, High Pressure<br>Downward Circulating, Low Tension | 52,000 KG      |
|        | 100% Cotton                 | Normal Temperature<br>Low Pressure<br>Upward Circulating                           | 43,000 KG      |
|        | TC/ TR / CVC/ 100%Polyester | Upward Circulating   | 250,000 KG     |



## 2.3 Tah Tong Taiwan – Production Capabilities

Starting from our own yarn mills, we manage a supply chain to offer value-added yarns and fabrics

|              | Yarn  | Weaving  | Dyeing  | Printing  | Key Products   |
|--------------|---|--|---|---|--|
|              |  |                           |         |    | <ul style="list-style-type: none"> <li>• Fine Gauge Knits</li> <li>• Various Tricot</li> <li>• Power Stretch Knit</li> <li>• Blended Knits</li> <li>• Printed Knits</li> <li>• Functional Knits</li> </ul> |
| <b>KNITS</b> | <ul style="list-style-type: none"> <li>● Filament Spinning (4 Mills)</li> </ul>   | <ul style="list-style-type: none"> <li>● Circular Knit (2 Mills)</li> <li>● Warp Knit (2 Mills)</li> </ul> | <ul style="list-style-type: none"> <li>● Circular Knit and Warp Knit (3 Mills)</li> </ul> | <ul style="list-style-type: none"> <li>● Heat Transfer Print (2 Mills)</li> <li>● Wet Print (1 Mill &amp; 2 Mills)</li> </ul> |  |
| <b>WOVEN</b> | <ul style="list-style-type: none"> <li>● Ring Yarn (1 Mill)</li> </ul>            | <ul style="list-style-type: none"> <li>● Greige Mills (5 Mills)</li> </ul>                                 | <ul style="list-style-type: none"> <li>● P/D &amp; Y/D (1 Mill &amp; 2 Mills)</li> </ul>  | <ul style="list-style-type: none"> <li>● Digital HTP (2 Mills)</li> <li>● Digital Wet Print (2 Mills)</li> </ul>              | <ul style="list-style-type: none"> <li>• Fine Denier Woven (15D-40D)</li> <li>• Stretch and Mechanical Stretch Woven</li> <li>• Printed Woven</li> <li>• Functional Woven</li> </ul>                       |

● IN-HOUSE ● OUTSOURCING

# 3. 2023 Eco Innovations



TAHTONG



## 3.2 Eco Materials



### ***BIODEGRADABLE***

From : **BIOMASS YARN & WEAR**

### ***BIOMASS***

From : **CROPS , ALCOHOL FUELS , WOOD ... + 30% PET**

### **RECYCLE COTTON**

From : **KNITTING & GARMENT FACTORY**

### **RECYCLE NYLON**

From : **BAG OR PE PRODUCTS**

### **RECYCLE POLYESTER**

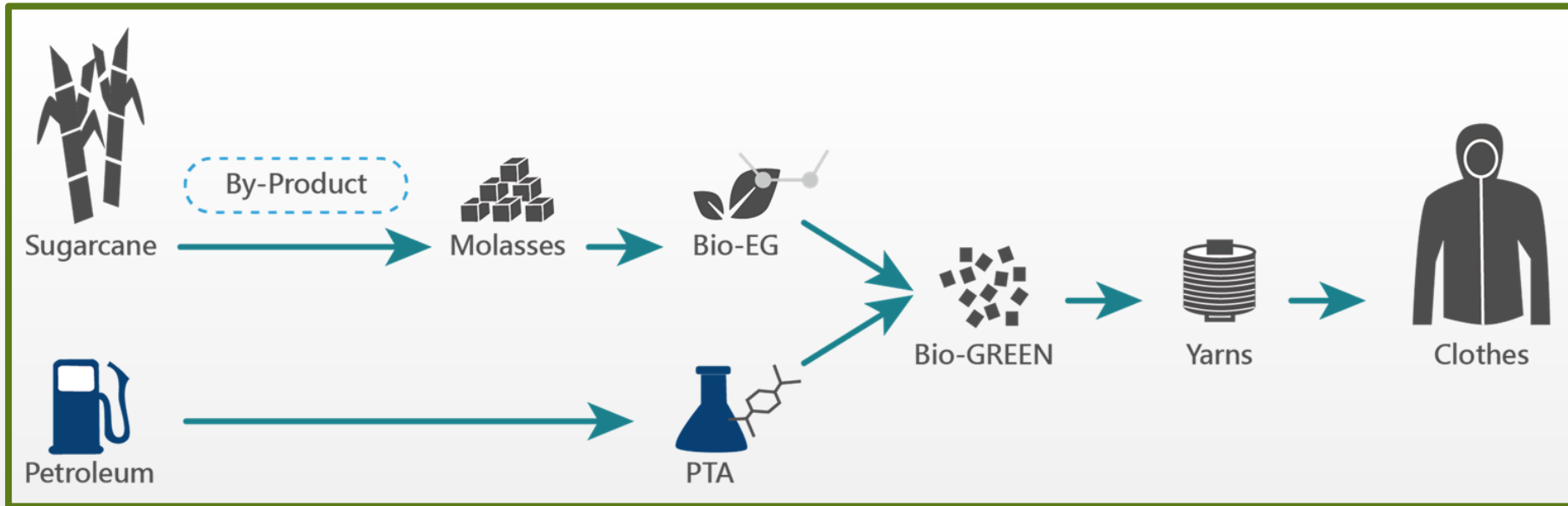
From : **BOTTLES OR PET PRODUCTS**



## 3.3 Bio Based Polyester Yarn

### Bio Based Fabric

Sugarcane and industrial corn



**Bio-PET** DTY 30/12, 75/36, 75/72,  
75/144, 150/48

**Bio-PTT** FDY 50/36, 55/48, 75/72



## 3.3 Bio Based Polyester Products



**TT3286**  
**54"/56" X 135 gsm**  
**100% Polyester**  
**Wicking**  
**Double Knit**

**TT3301**  
**59"/61" X 135 gsm**  
**88% Polyester**  
**12% Spandex**  
**Wicking**  
**Single Jersey**

**TT3218**  
**60"/62" X 144 gsm**  
**95% Polyester**  
**5% Spandex**  
**Wicking**  
**Single Jersey**

**TT3214F**  
**60"/62" X 220 gsm**  
**78% Polyester**  
**22% Spandex**  
**Brush**  
**Interlock**

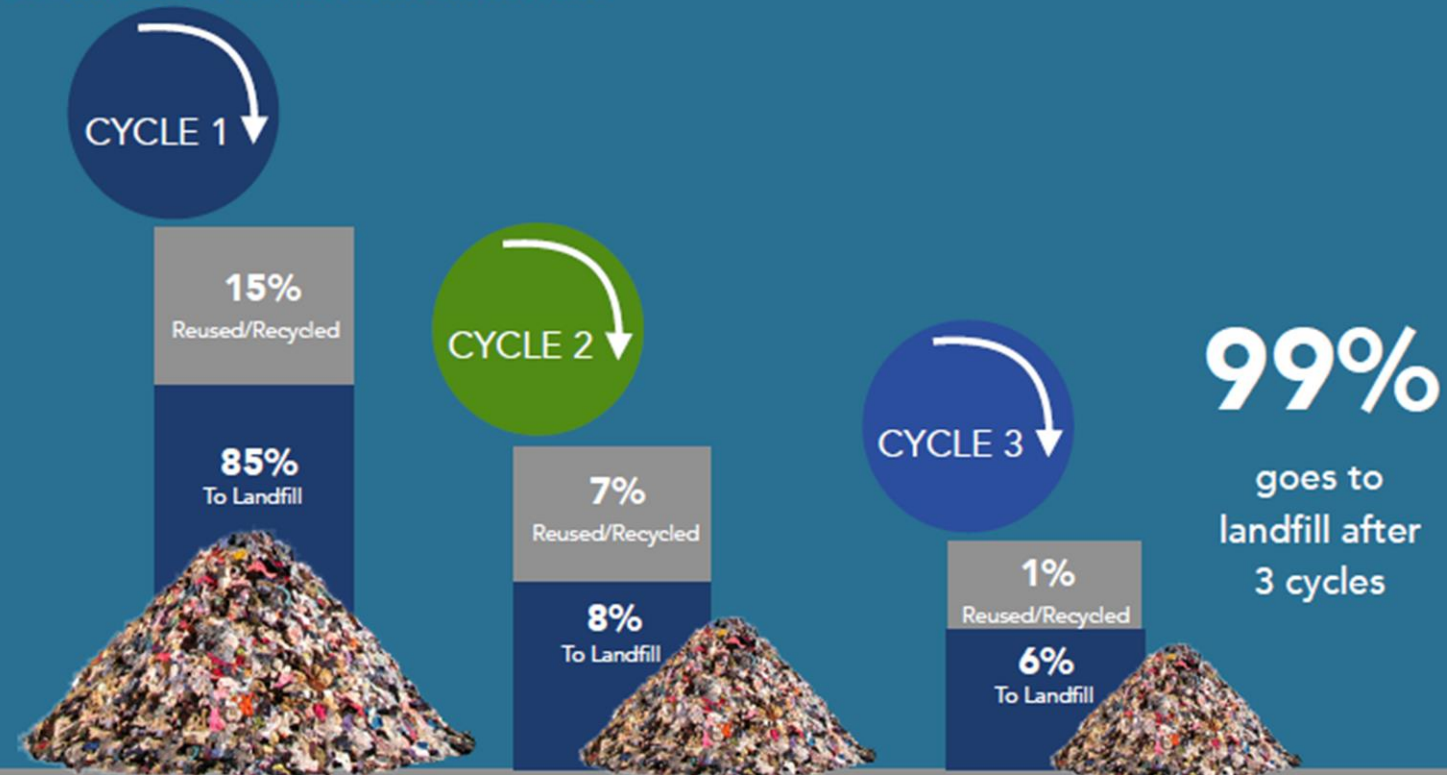
**TT3461**  
**56"/58" X 210 gsm**  
**81% Polyester**  
**19% Spandex**  
**Interlock**



## 3.4 Bio Based Nylon Benefits

### CURRENT PATH FOR TEXTILES POST-USE

U.S. ENVIRONMENTAL PROTECTION AGENCY FACTS



- 16 Billion pounds of synthetic “plastic” textiles are landfilled annually in the US alone
- 99% of textiles eventually landfilled
- >60% of the world’s apparel made from petroleum-based synthetics
- Mass textiles recycling solutions do not exist today



## 3.4 Bio Based Nylon Products



**TT3254K**  
**58"/ 60" x 115 gsm**  
**Pique**  
**Bio Wicking**  
**50% Recycle Polyester**  
**46% Bio based Nylon**  
**4% Spandex**  
**Light Weight**  
**Iridescent Effect**



**TT3289**  
**61"/ 63" x 140 gsm**  
**Single Jersey**  
**Bio Wicking**  
**88% Bio Based Nylon**  
**12% Spandex**  
**Light Weight**  
**High Gauge 44G**  
**Buttery Hand Feel**



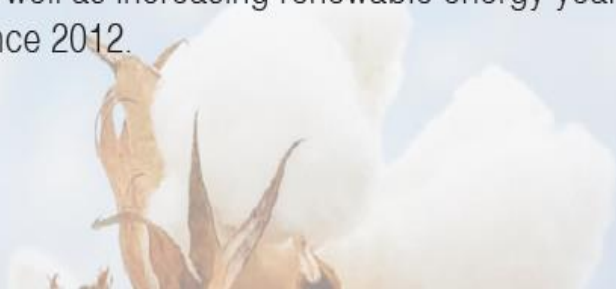
# GOOD EARTH COTTON

## The world's first Carbon Positive, Traceable cotton.

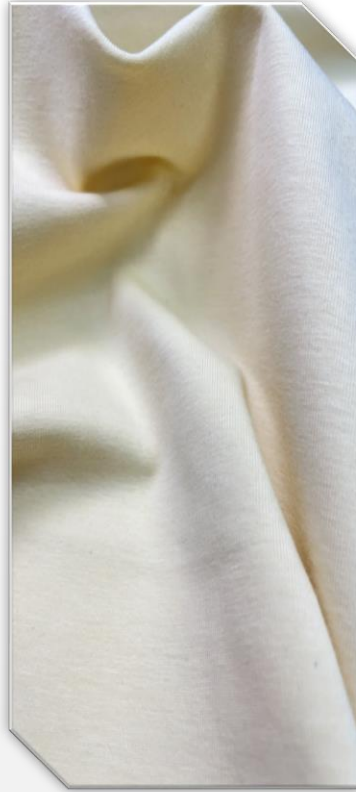
Good Earth Cotton® employs modern regenerative and smart farming practices to minimise its environmental footprint and maximise soil health.

Good Earth Cotton® is not only independently certified as being carbon positive, but the farm upholds world best practice resulting in improved soil health, biodiversity, water efficiency, minimal chemical use, as well as increasing renewable energy year on year since 2012.

Today, the Good Earth Cotton® farm known as 'Keytah' sequesters approximately 21 Million kg of CO<sub>2</sub>. That's equivalent to taking approximately 4,500 cars off the road with every harvest.



## 3.5 Recycled Cotton



**VTK5589-1**  
69"/ 71" x 236 gsm  
Single Jersey  
Wicking  
93% Recycle Cotton  
7% Spandex



**VTK5459-1**  
58"/ 60" x 200 gsm  
Single Jersey  
Wicking  
94% Recycle Cotton  
6% Spandex



**TTPF0047**  
75"/ 77" x 200 gsm  
Terry  
Wicking  
60% Recycle Cotton  
40% Recycle Polyester



# 3.6 GRS Certificate

## GRS - Global Recycled Standard



Control Union Certifications B.V.  
 Meusevulaan 4-6, 8011 SZ, Zwolle, Netherlands  
 +31 38 426 0100  
 www.controlunion.com

### SCOPE CERTIFICATE

Scope Certificate Number: CUB46561GRS-2022-00076076

Control Union Certifications Declares that  
**TAH TONG TEXTILE (VIETNAM) CO., LTD**

License Number: 846561  
 Lot 1-1, 1-2, 1-3, My Xuan B1 - Tien Hung Industrial Zone, My Xuan Ward, Phu My Town,  
 790000 Ba Ria Vung Tau Province  
 Vietnam

has been inspected and approved in accordance with the  
 Global Recycled Standard (GRS)  
 - Version 4.0 -

and that products of the categories as mentioned below (and further specified in the product appendix) conform with this standard.  
 Product categories: Greige yarns (PC0030)

Processing steps / activities carried out under responsibility of the above mentioned company for the certified products:

Collecting (PR0065), Concentrating (PR0066), Mechanical recycling (PR0017), Packing (PR0020), Spinning (PR0027),  
 Trading (PR0030), Warehousing, distribution (PR0031)

This certificate is valid until:  
 2023-05-29

Place and date of issue:



2023-05-27, Zwolle

Name of authorized person:

On behalf of the Managing Director  
 Hasan Bisi/Certifier

Stamp of the issuing body



Logo of the accreditation body



Standard Logo



This Scope Certificate provides no proof that any goods delivered by its holder are GRS certified. Proof of GRS certification of goods delivered is provided by a valid Transaction Certificate (TC) covering them.

The issuing body may withdraw this certificate before it expires if the declared conformity is no longer guaranteed.

Accredited by: SAI Lanka Accreditation Board (SLAB), Accreditation No: CP 004-03



Control Union Certifications B.V.  
 POB7 - Meusevulaan 4-6 - 8011 SZ - Zwolle - Netherlands  
 T +31 38 426 0100 - F +31 38 423 7040 - certification@controlunion.com  
 Scope Certificate CUB46561GRS-2022-00076076, valid License Number: 846561 Page 1 / 2

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## 3.7 Fabric Finishing Innovations



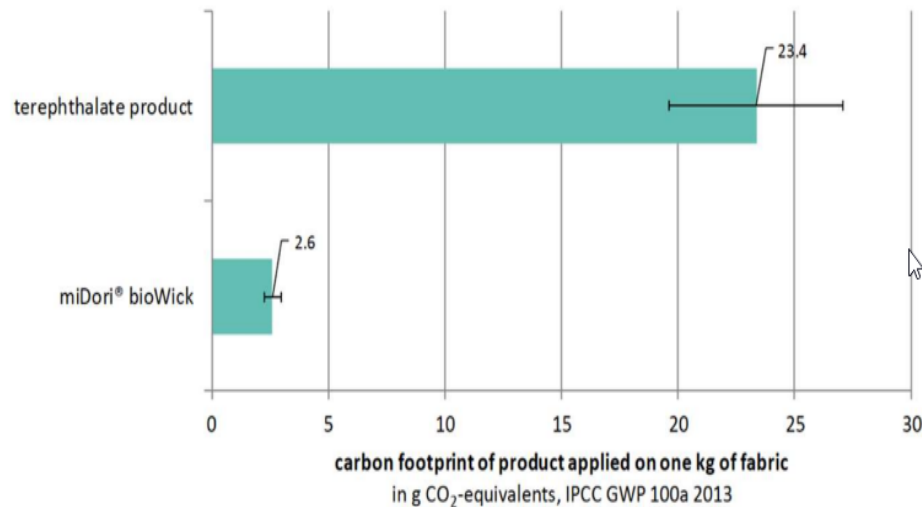
## 3.7.1 Green Chemistry - Bio Based Agent

### Bio based DWR vs General water repellent

| Technique | Bio based DWR  | General PFC FREE DWR   |
|-----------|--|--|
| Pros      | <ul style="list-style-type: none"> <li>● More eco-friendly</li> <li>● Made with RSPO certified raw materials for the cleanest PFOA and PFOS free hydrophobic surface treatment.</li> <li>● Rich in plant based oil</li> <li>● Complete products</li> <li>● Reduce Carbon emissions</li> <li>● No chalk mark</li> <li>● Color change will be minor</li> </ul> | <ul style="list-style-type: none"> <li>● Cost is lower</li> <li>● Well used in variety fabric</li> <li>● Many brand can choose from</li> <li>● Generally most of fabric can be set up reach 80/10 and 80/20</li> </ul> |
| Cons      | <ul style="list-style-type: none"> <li>● It will depends on the fabric to see if can reach 80/20</li> <li>● Cost is higher</li> <li>● Only few brands can be choose from</li> </ul>  | <ul style="list-style-type: none"> <li>● Still might sabotage environment</li> <li>● Chalk mark</li> <li>● Color change might be great</li> </ul>  |
| Cost      | <ul style="list-style-type: none"> <li>● + \$0.6 ~ 0.8/ YD</li> </ul>  | <ul style="list-style-type: none"> <li>● + \$0.4 ~ 0.6/ YD</li> </ul>  |

## 3.7.2 Green Chemistry - Bio Wicking

up to 80% lower carbon footprint without compromising on performance



**Figure 3: carbon footprint of miDori® bioWick applied on one kg of fabric compared to a terephthalate product**  
The lines on the bars represent the uncertainty of the results.

### bioWick with ALGAE

The first microalgae-based wicking finish for synthetic textiles

#### MADE FROM:

- Microalgae oil, the first-ever in the industry
  - Selective and targeted development of raw material
  - Grows within days in closed system by fermentation
  - Higher yield of desired oil components

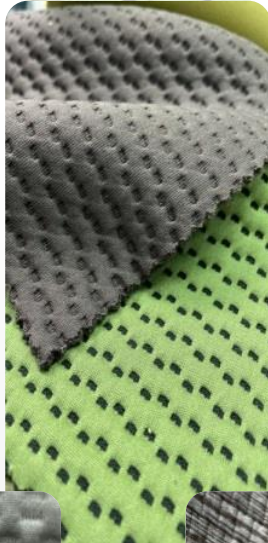
#### SUITABLE FOR:

- Excellent for synthetic fabrics



## 3.7.3 Anti-Bacterial

Can be used in synthetic and natural fiber , cotton with copper for permanent



Textile Laboratory

### Test Report

No: TXC0693 /2020 /LR

Date: Dec. 31, 2020

Page 2 of 4

Test Results:

Antibacterial Finishes on Textile Materials (AATCC 100 - 2019)

After 50 washes\*

| Test Bacteria : Staphylococcus aureus ATCC No. 6538 |                   |                |
|---|-------------------|----------------|
| Test Group  | CFU/specimen      | Reduction (R)% |
| Control test at "0" hr (C)                          | $1.0 \times 10^5$ | 99.9           |
| Control test at "24" hr (B)                         | $3.9 \times 10^7$ |                |
| Treated test at " 24 " hr (A)                       | $2.4 \times 10^4$ |                |

| Test Bacteria : Klebsiella pneumoniae ATCC 4352 |                   |                |
|---|-------------------|----------------|
| Test Group                                      | CFU/specimen      | Reduction (R)% |
| Control test at "0" hr (C)                      | $2.4 \times 10^5$ | 99.9           |
| Control test at "24" hr (B)                     | $5.0 \times 10^8$ |                |
| Treated test at " 24 " hr (A)                   | $2.8 \times 10^5$ |                |

| Test Bacteria : Escherichia coli ATCC 8739 |                   |                |
|--|-------------------|----------------|
| Test Group                                 | CFU/specimen      | Reduction (R)% |
| Control test at "0" hr (C)                 | $1.3 \times 10^5$ | 99.9           |
| Control test at "24" hr (B)                | $3.3 \times 10^8$ |                |
| Treated test at " 24 " hr (A)              | $9.2 \times 10^4$ |                |





# 4. Certification



TAHTONG

## 4.1 Sustainability Certifications



## 4.2 Global Marketing & Sales for Fabric



# Thank You !



TAHTONG