NANYA PLASTICS CORP.

INNOVATIONAL FILAMENT

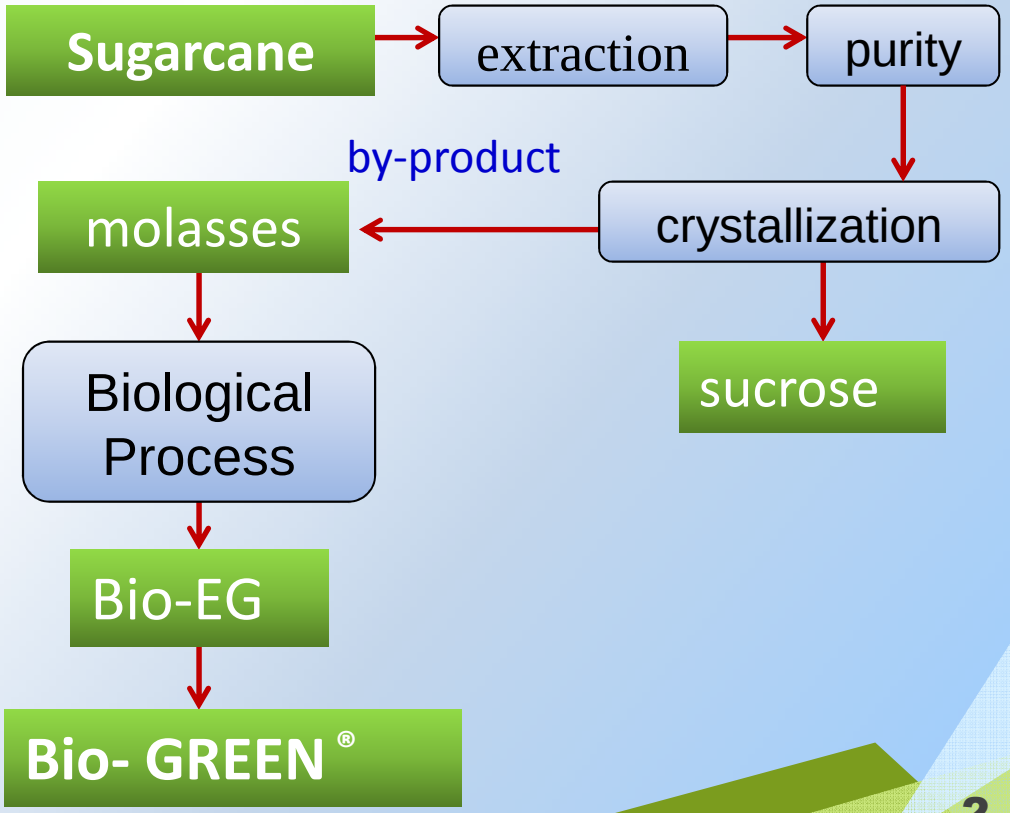
台麗綾
TAIRILIN

POLYESTER FIBER DIVISION

BIO-PET

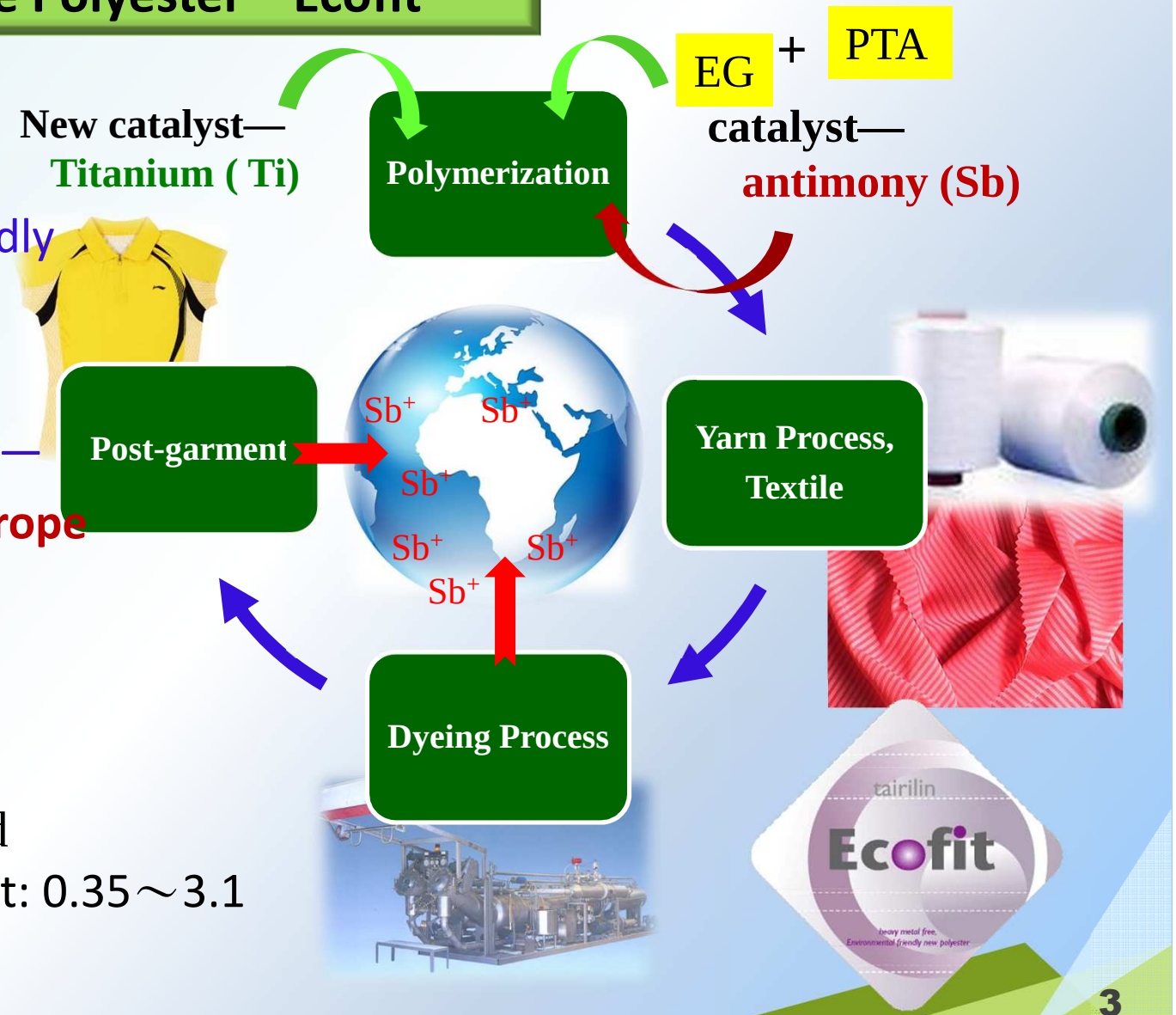
Bio-source EG— BIO-GREEN®

- Renewably Sourced Polyester— Made of Bio-EG & PTA
- Reduce 25% CO_2 emission
- Same Performances as Virgin PET



Heavy Metal Free

Heavy Metal Free Polyester—Ecofit®



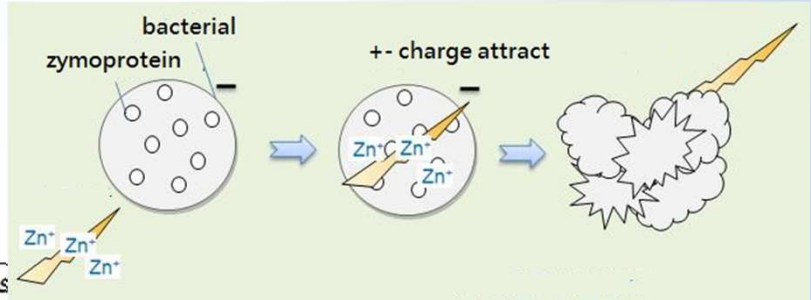
- Environment Friendly New Catalyst
- Good Quality
- Got Patent License—
  Taiwan, China, Europe

Specification

- Denier: 30d～300d
- Denier per filament: 0.35～3.1
- Type: DTY、FDY

Antibacterial Filament

- Polymer Build-in High Performance **Zinc Oxide**
- Keep Performance After Dyeing Process
- Pass ISO 20743—
  Staphylococcus aureus (AATCC 6538)



Result :

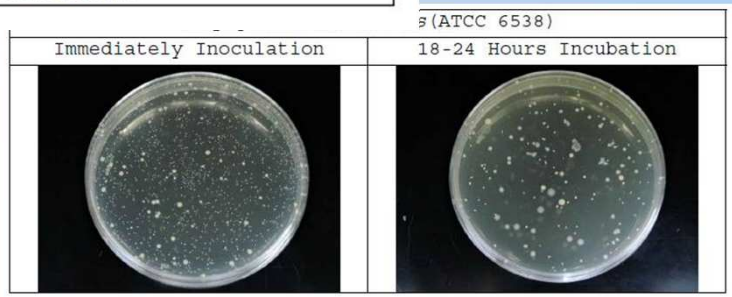
Name Of Test Bacteria (Strain Number)	*Staphylococcus* (ATCC 6538)
Concentration of inoculum	2.42×10^5 CFU/ml
Number of living bacteria of test pieces immediately after inoculation of inoculum on control fabric (Co)	4.56×10^4 CFU (Log : 4.66)
Number of living bacteria of test pieces after 18-24 hours incubation on control fabric (Ct)	8.40×10^5 CFU (Log : 5.92)
Number of living bacteria of test pieces immediately after inoculation of antibacterial treated sample (To)	4.41×10^4 CFU (Log : 4.64)
Number of living bacteria of test pieces after 18-24 hours incubation on antibacterial treated sample (Tt)	4.38×10^3 CFU (Log : 3.64)
Growth value on control fabric (F)	1.26
Growth value on antibacterial treated sample (G)	-1.00
Antibacterial Activity Value (A)	2.26
Measuring method	Plate Count Method
Type of sample material	Black Fabric

Intertek

Specification —

50/72, 75/72 DTY

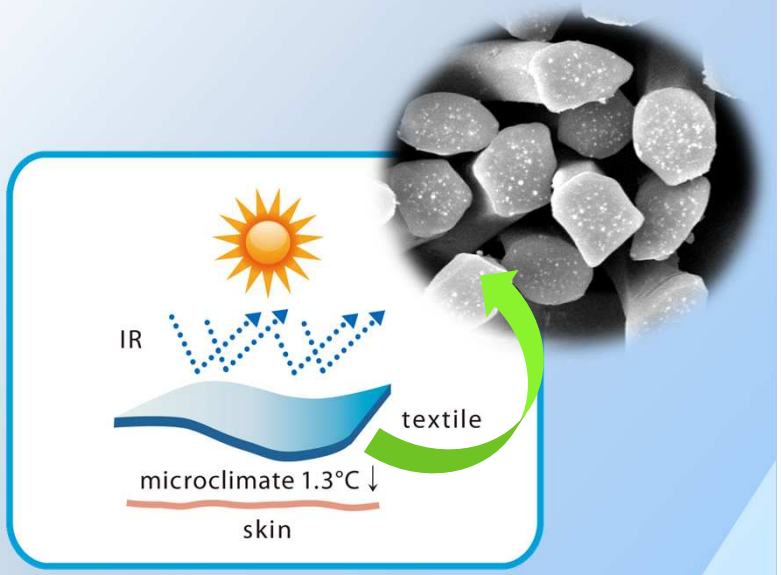
＊ test sample:
knitting (50% antibacterial yarn)



Cool Effect

Heat Shield Polyester — **SunShield®**

- **Cool Touch—**
  Higher Moisture Content or Heat Conductivity
  →Get Balance Quickly
- **Cool Down—**
  Reflect Heat Source Outsides (**Shield Effect**)
  →Real Cool
- SunShield® Contain Ceramics To Reflect Infra Ray Of Sunlight
  → 3 In 1 Multifunction
  Cool Down & UV-CUT & Anti-transparent

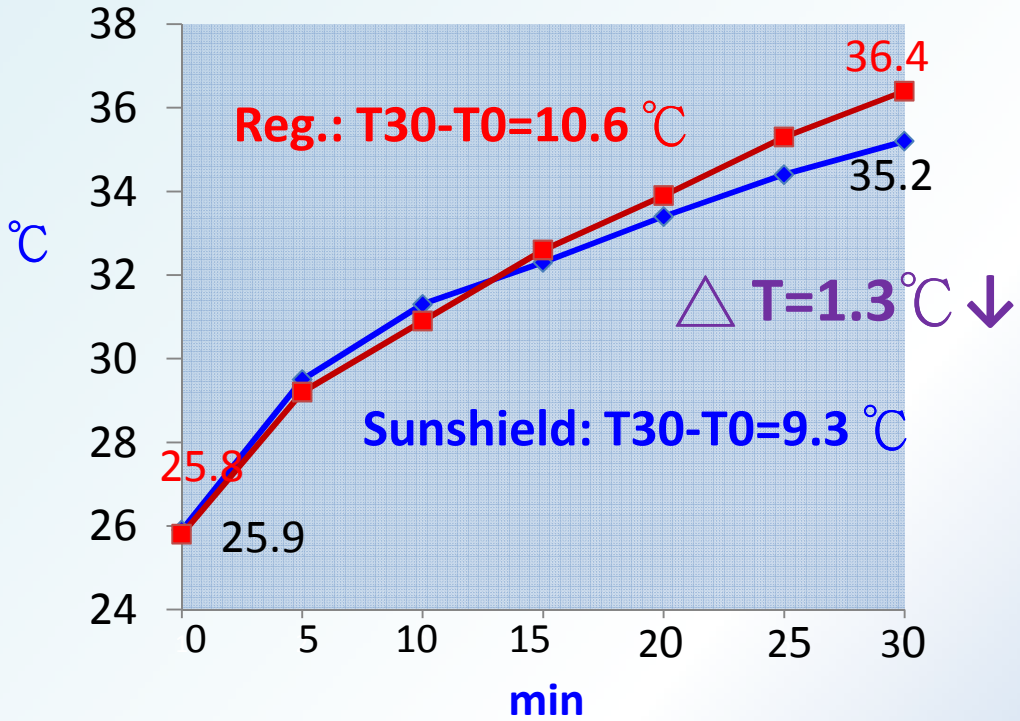


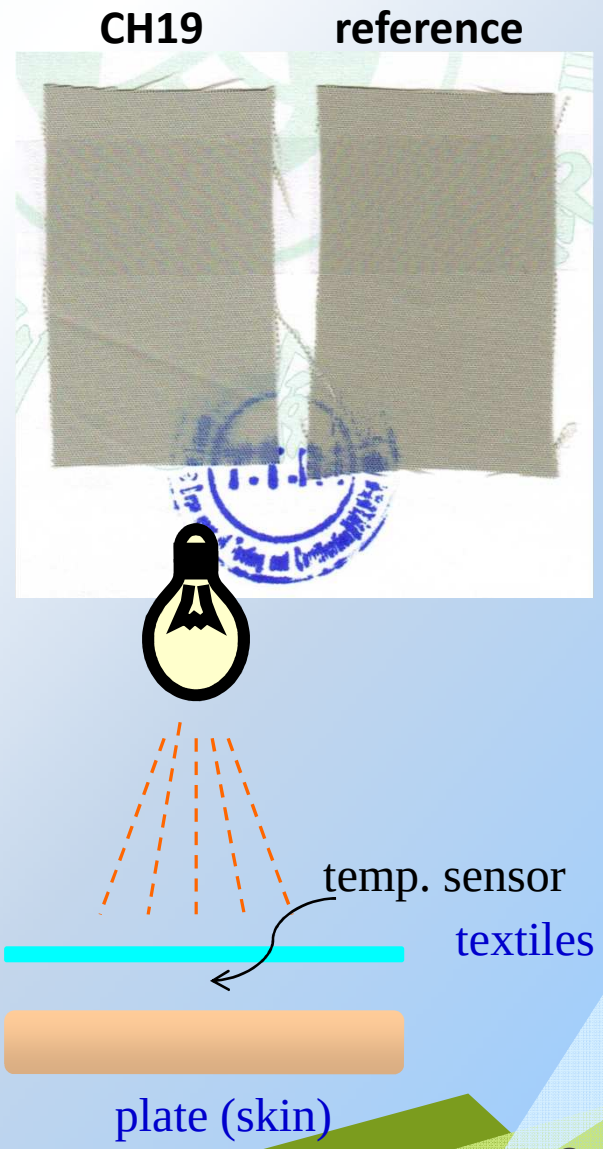
Specification —

50/48, 75/72 DTY

Cool Effect

Cool Down Performance





Test Method—Solar Shield Micro Climate Temp.

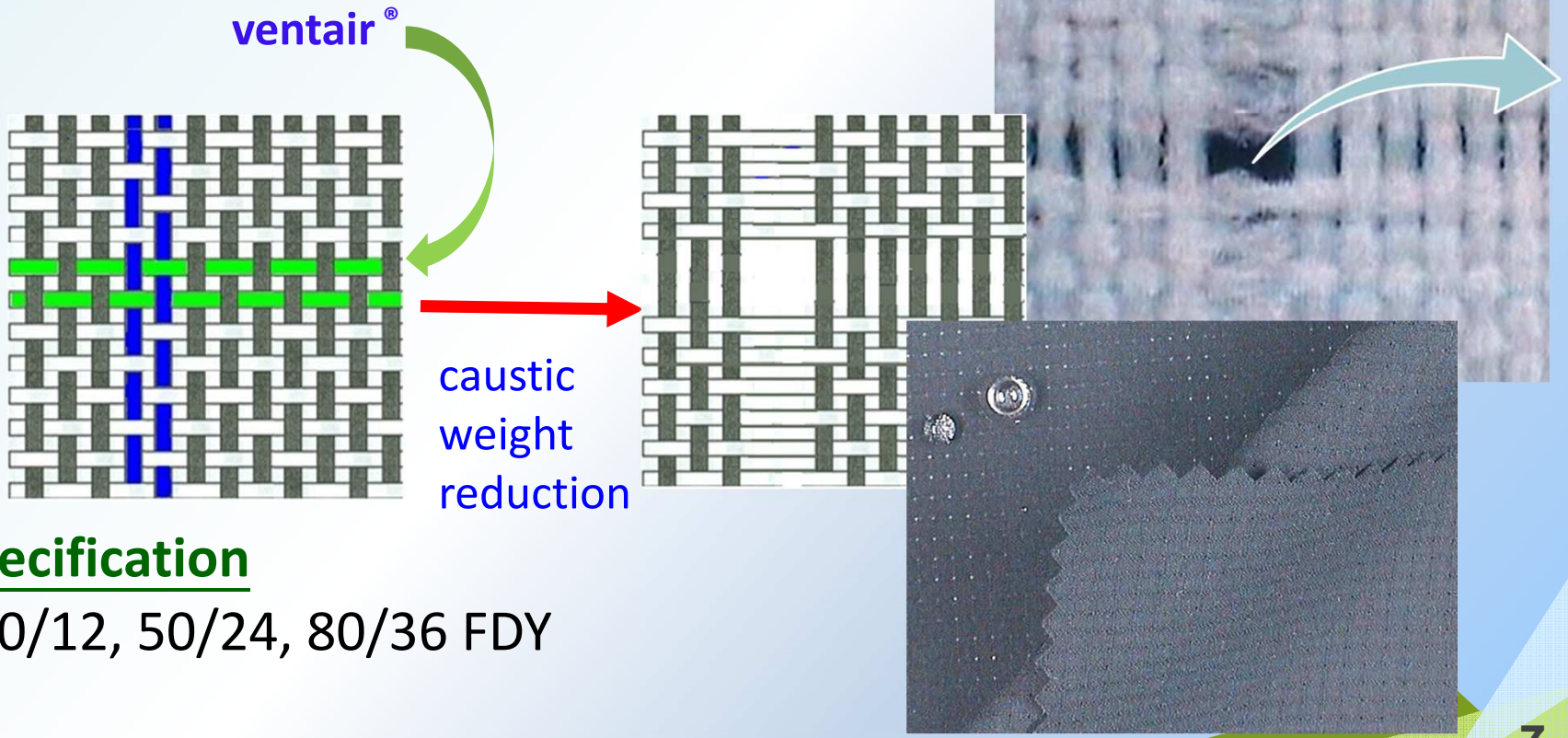
- Heat source: 300 W halogen lamp
- Heat distance: 50 cm
- Exposure time: 30 min

Cool Effect

High Ventilation

- Cool Down By Increase Ventilation of Woven Textile
- Ventair ® Yarn Is Soluble By Caustic (NaOH)
- Yarn Is Dissolved During Dyeing Process

  →Ventilation, Cool, Knitting -like



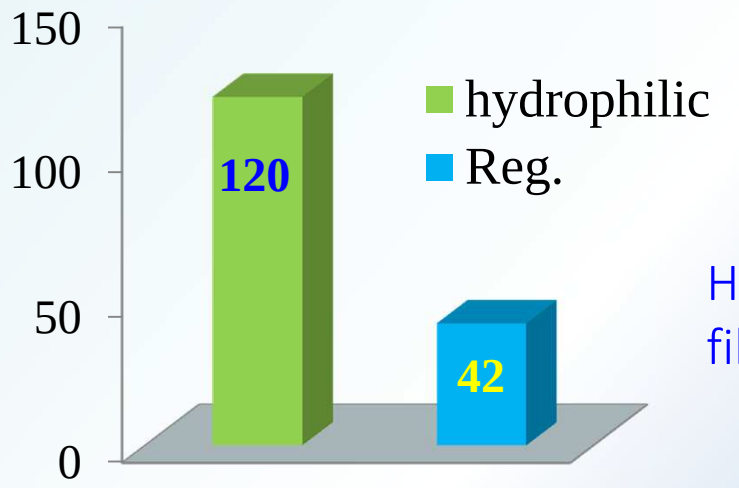
Specification

30/12, 50/24, 80/36 FDY

Hydrophilic Filament

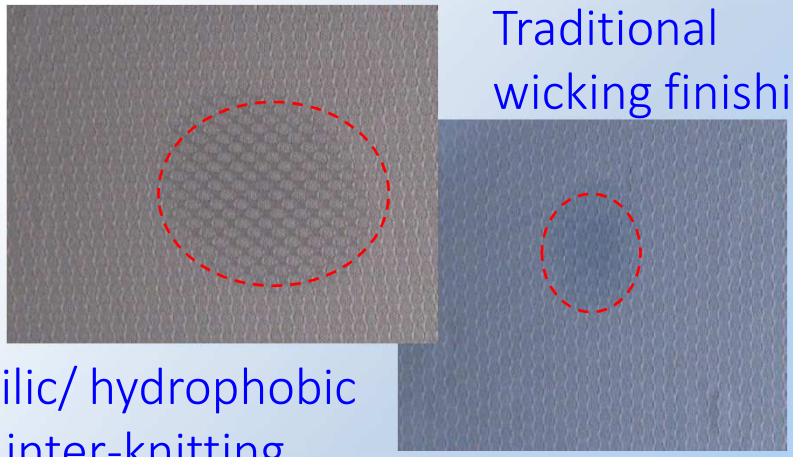
- New development hydrophilic yarn
- Excellent hydrophilic performance without chemical finishing
- Wicking, quick dry, cool touch

- **Wicking Performance**



wicking height (mm/10 min)

- **Quick Dry Performance**
  (better water diffusion area)



Traditional wicking finishing

Hydrophilic/ hydrophobic filament inter-knitting

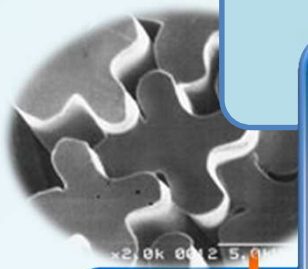
- **Cool Touch** (for FDY)

  Q-max=0.153 W/cm^2

Designed Cross Section

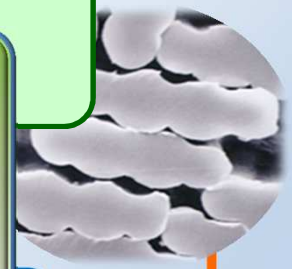
- 75/48,75/72
- SD & FD

- 25/24 FDY
- 75/30,75/48,75/72 SD & FD



- 4 wicking channel
- wicking & quick dry

- 6 wicking channel
- quick dry
- less luster

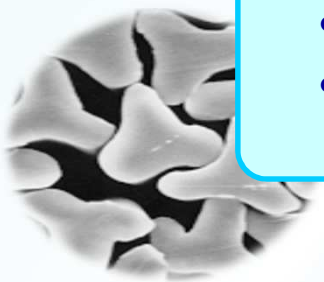


- Y cross section
- wicking
- down proof

- flat cross section
- luster
- cool touch

- 15/12,20/36
- 75/96,75/144

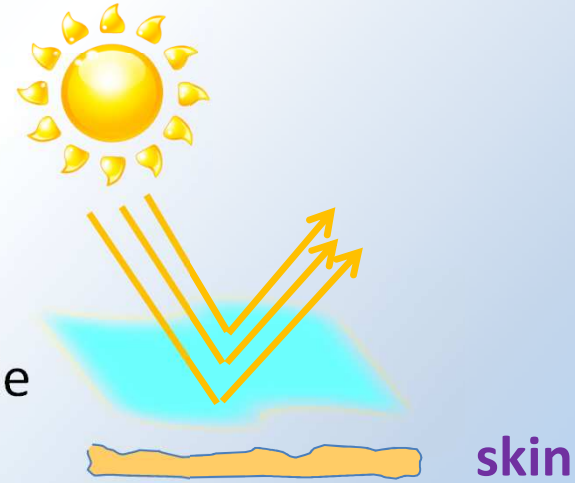
- 30/12,50/12, 80/12
- 90/72,90/72 FD



UV CUT

FULL DULL

- High Concentrated TiO_2
  →Reflect UV ray (UV cut)
  →Powder Touch
- Matted 、Anti-transparent
- Low Denier、Microfiber

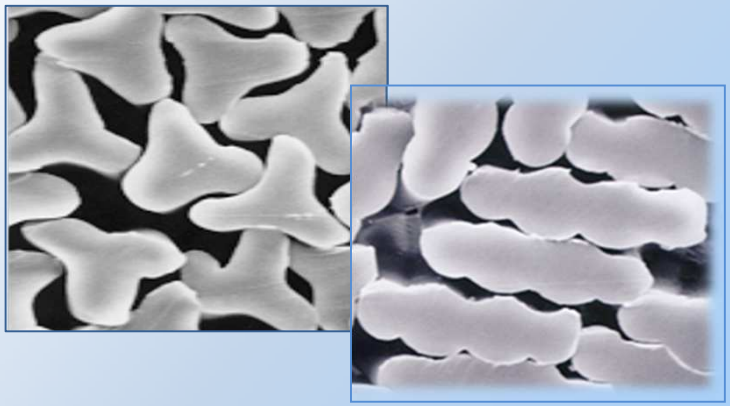


Specification

DTY—
30/36, 30/72, 50/144

FDY—
15/36, 20/48, 30/48,
40/72, 50/108

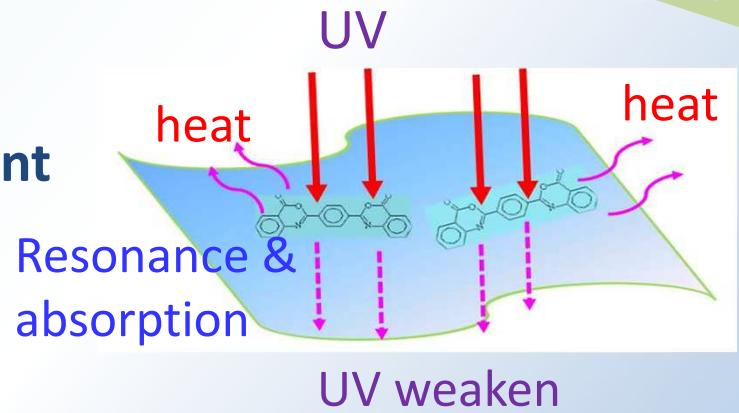
Special Cross-section—
"Y":75/96
"wave":40/30,75/30, 75/48



UV CUT

SUNCOOL

- **Polymer Blending With Unique Ingredient**
- **Increase UV-CUT Performance**



➢ **Full Dull Type—**
Light Weight &
Excellent UV-CUT

UPF	white	green
FD FDY	20	65
FD SUNCOOL	42	74

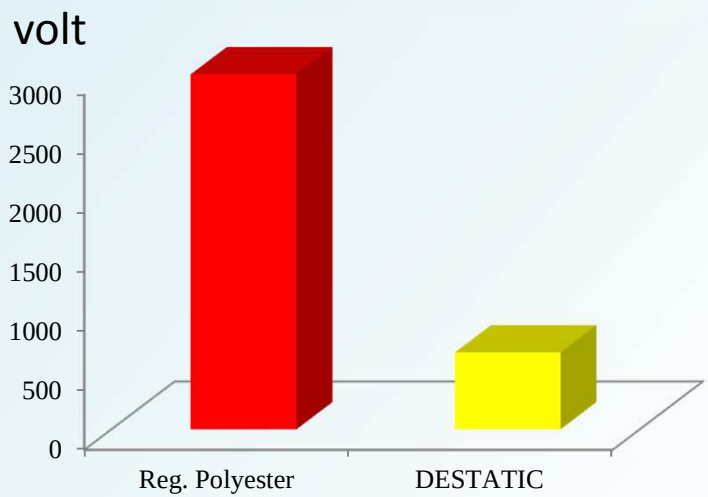
*27/24 DTYx30/36 FDY
1/1 54 g/m^2

Specification

30/36 Br FDY,
30/36 FD FDY, DTY

➢ **Br Type—**
Light Weight &Transparent
&UV-CUT

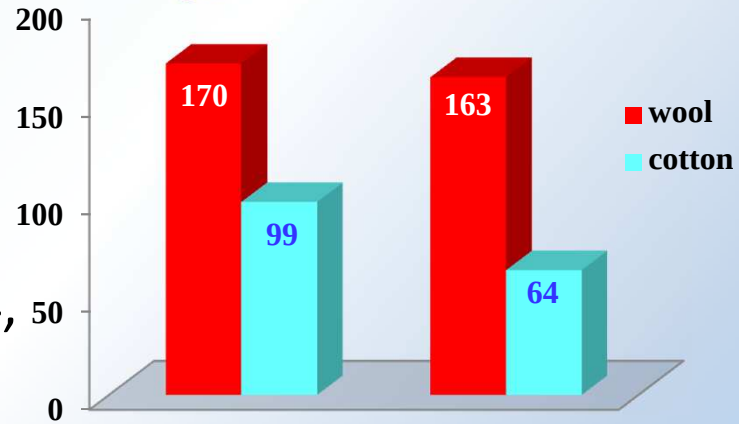
Antistatic



JIS L1094 B method
(20˚C. 40% R.H)

- Polymer Modified
- Wearing Comfortably Without Static
- Friction-charged Electrostatic Potential <1000 Volt
- Combined with W/ R Finishing

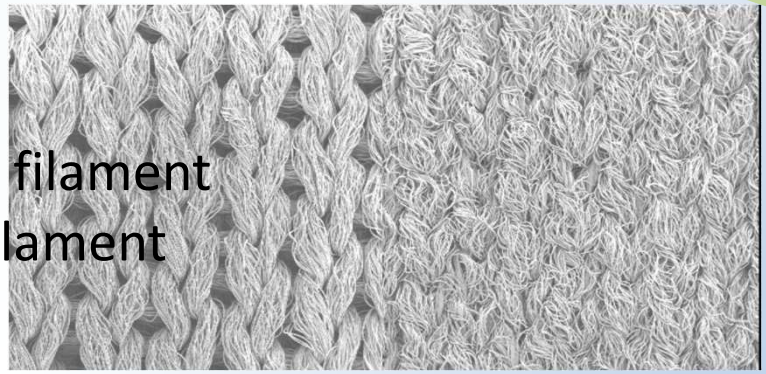
Wash Durable



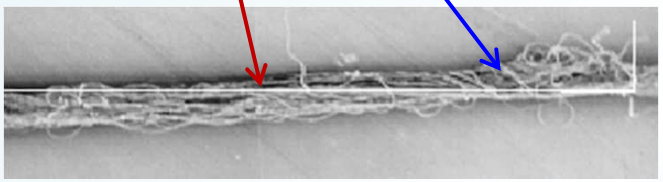
Specification

- FDY—
  30/24, 30/36, 50/24,
  30/36 CD, 50/24 CD

Different Shrinkage



- Unique Composite Yarn
  core yarn : heavy denier, high shrinkage filament
  effect yarn : fine denier, low shrinkage filament
  0.20-0.5dpf
- Bulky、Dense, Soft, Suede-Like
  Wind Proof, Warm



heating-treatment

Specification

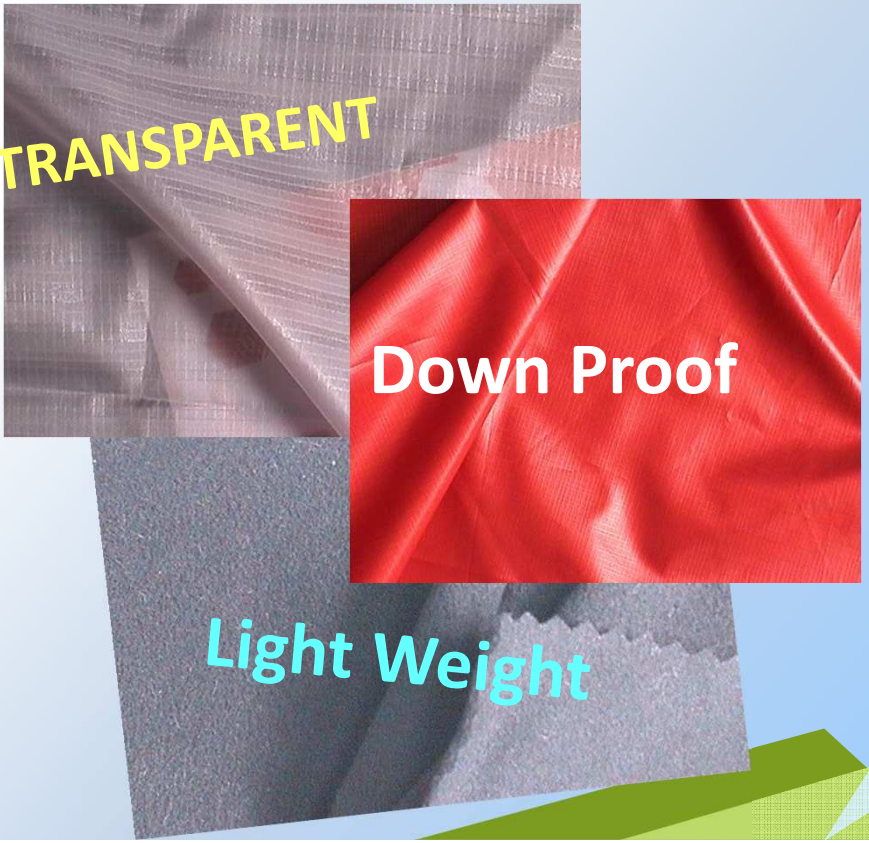
Composite DTY—
35/60, 35/108, 50/84 , 65/156,
85/108, 85/156, 85/228,
85/108 heather, 105/156

High Shrinkage FDY—
15/12, 30/12 , 75/36

Extra Light Weight

Characteristics

- 7 denier~ 30 denier
- Light Weight
- Soft Touch



Specification

DTY—

- 7/8, 10/6, 10/12, 15/12, 15/36
- 27/72, 20/96

FDY—

- 10/12, 10/24, 15/36, 20/48, 25/72

Multi-Filament Fine Denier

Characteristics

- Direct Spinning Microfiber
  Maximum Filaments—432
  D/F reach 0.35, 0.25, 0.20
- Soft Touch ,Peach-Skin Effect

Specification

DTY

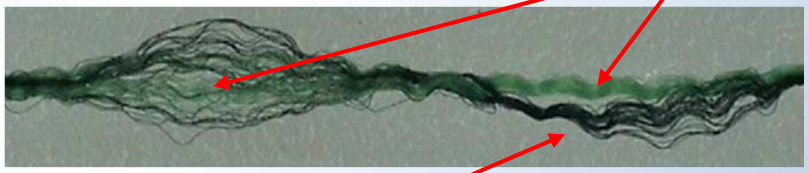
- 35/144, 40/72, 45/216, 50/144, 55/216
- 75/288, 80/216, 90/432, 100/288, 150/216

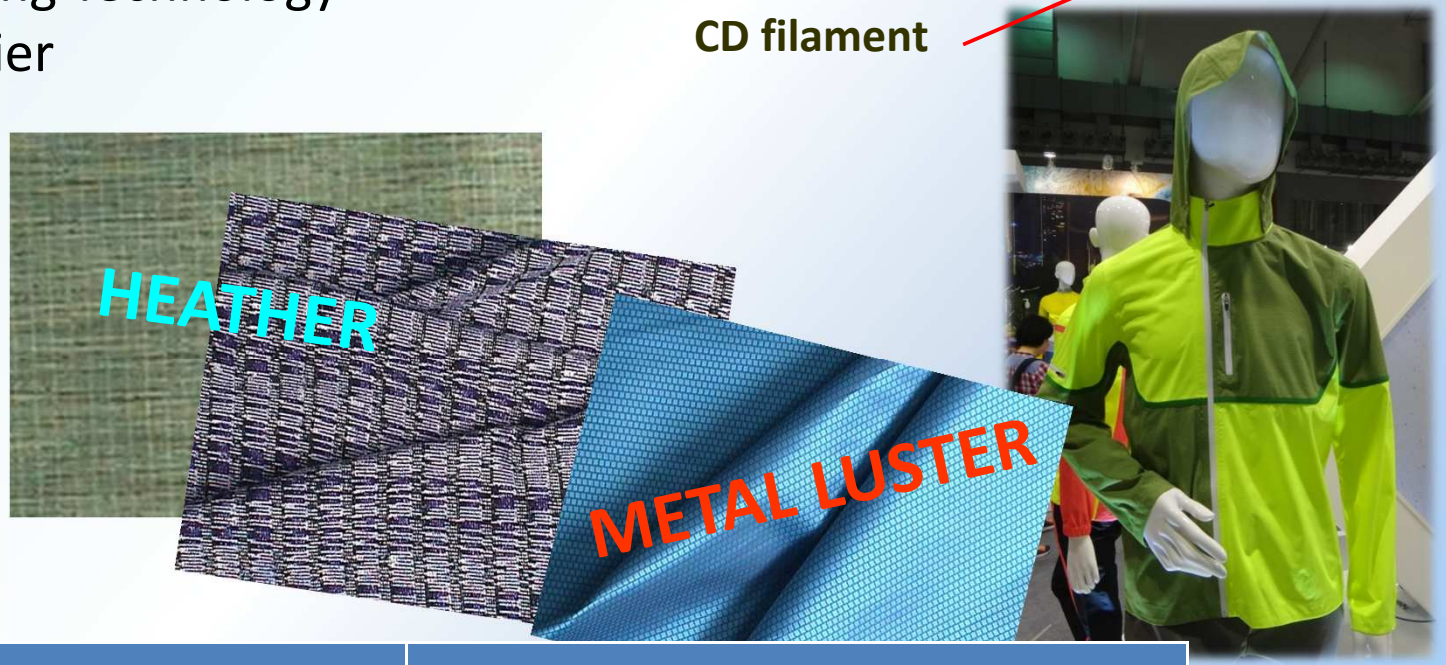
FDY

- 43/108, 50/108, 50/216
- 75/144, 70/216
- 80/216 HBWS

Heather Effect

- Unique CD & PET Composite Technology
- Diverse Looks by Different CD/PET Ratio & Texturing Technology
- Extra Low Denier





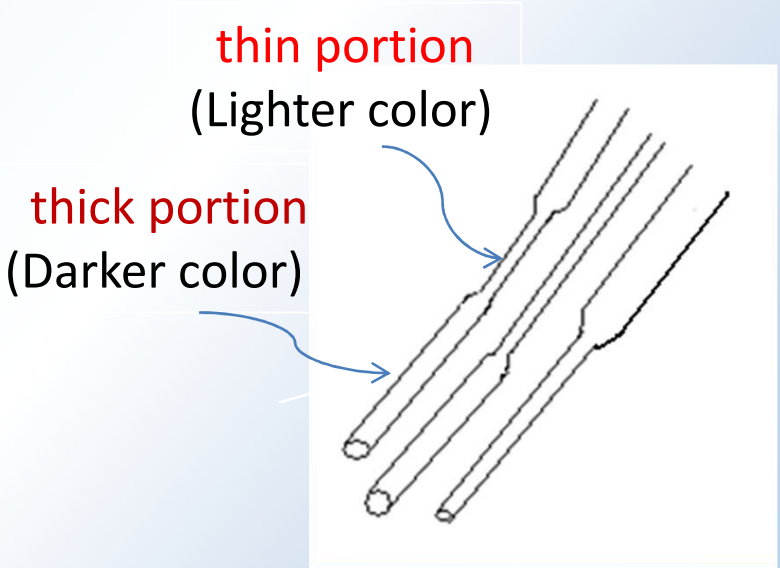
Specification

	Heather type	100% CD type
DTY	33/36, 40/48, 55/96, 75/72, 150/144	15/12, 20/24, 30/36, 40/48 50/72, 75/144,

Tone-on-Tone Effect

Tone-on-Tone Filament

- Thick & Thin (T&T) Texturing Technology
- Heather Color by Random T&T Cross-Section in Yarn Axial Direction
- Tone-on-Tone Effect With White or Dark Stripe

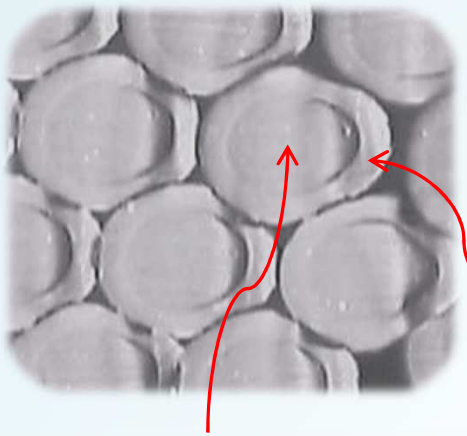


Specification

White— 120/96 DTY

Dark— 80/72 DTY,
50/72 FDY

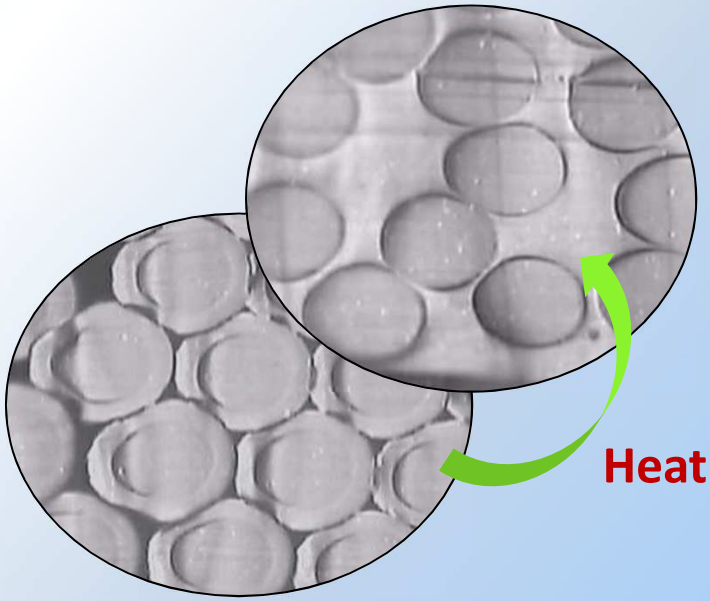
LOW MELT POINT



Core
melt point:250 ℃

Sheath
melt point:
150℃, 190 ℃

- Sheath/Core With Different Melt Point:
  ex.: 150 ℃ /250 ℃, 190 ℃ /250 ℃
- Thermo Set Easily By Heat Treatment
  →Better Size Stability
  Durable Shape Memory Ability



Heat Setting

Specification

- 30/24,75/24, 150/48 FOY

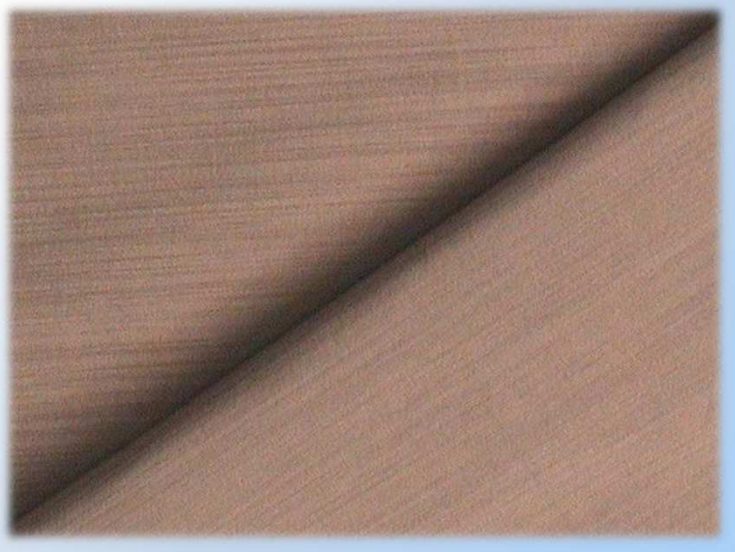
LOW MELT POINT

Applications

Integral Shoes

Sandwich Structure Textile

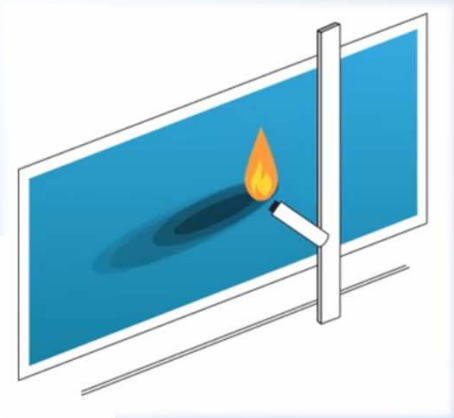
New Hand Feel



Sports Bra

ANTI-DRIPPING FLAME RETARDANT

- Phosphate Base Flame Retardant Polyester
- Anti-Dripping Performance
- Pass NF P92-507 M1
- Wash Durable



SGS

Textile Laboratory

Test Report No: TX70504 /2017 /SP Date: July 20, 2017 Page 5 of 5

STATEMENTS:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test. They are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.
The test results relate only to the specimens of the product in the form in which were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product, which is supplied or used, is fully represented by the specimens, which were tested.

Conclusion:

Classification: M1

Note: The classes with their corresponding fire performance are given in Annex I.

Tested by relevant SGS laboratory.

*** End of Report ***