

#### HWA FUNE INDUSTRY CO., LTD.



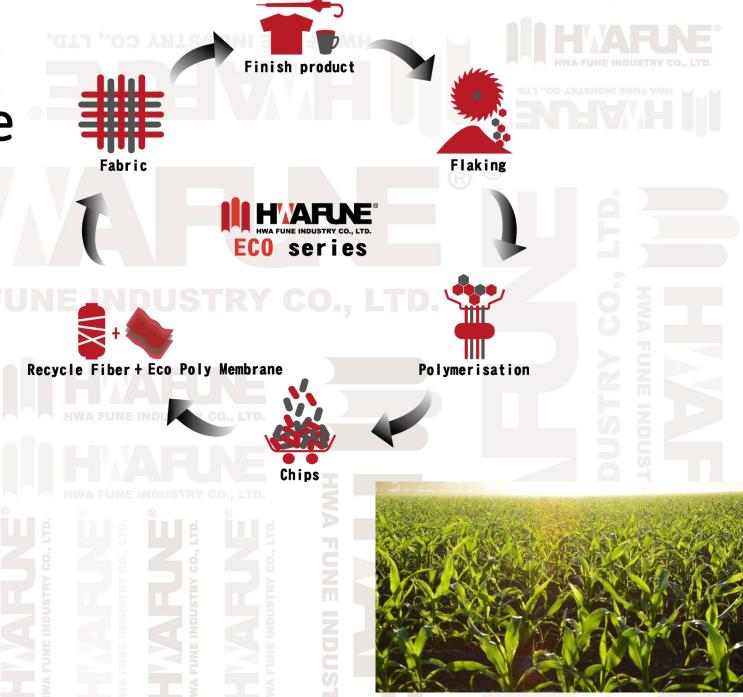


### Story behind the scene

With the advancement of science and technology, textile materials are constantly updated.

There are many kinds of eco-friendly materials. Recycle reuse the waste and Bio reduce the use of fossil fuel greatly. Each has its advantages and characteristics. In Hwa Fune, you can know the detailed differences and performance. Follow us to learn more.

At Hwafune we provide better options!!



#### Eco yarn

#### Nylon

- Bio Nylon
- Recycle Nylon
- Marine Debris Nylon (Buoy/ Net)

#### Polyester

- Bio Polyester
- Recycle Polyester
- Marine Debris Polyester

**Eco film** 

PET

-

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**BIO/ RECYCLE PU** 

**BIO/ RECYCLE TPU** 

Eco Poly Membrane

Eco Nylon Membrane



#### HWA FUNE INDUSTRY CO

Renewable raw materials



**Eco Nylon** 

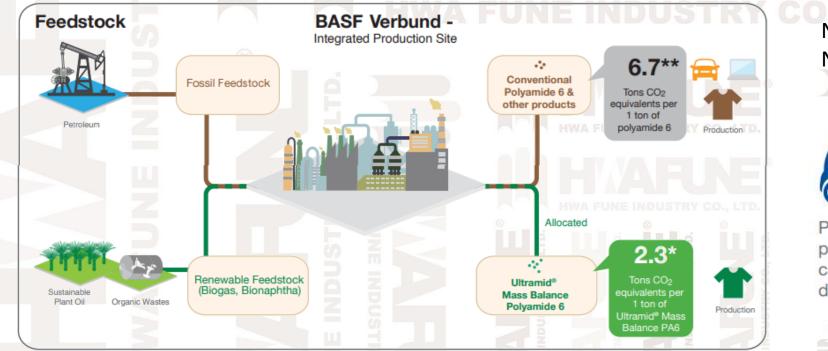
- Very good impact strength
- Outstanding resistance to chemicals
- Low tendency to creep
- High strength and rigidity
- Simple processing

#### W-4983-L07G

- 57%Bio Nylon 43%Nylon6.6 Stretch(2-way)
- F.C.LDWR30/70-80%, WP 20,000m/m, MVP 20,000g/m2/24hr
- Weight: 152GSM±5
- DUPON B20W SUSTERA/ Ultramid®(BASF)

#### **BASF BIO NYLON-ULTRAMID®**

BASF has developed a groundbreaking approach to derive products from renewable raw materials: Certified renewable feedstock is used to replace fossil resources at the beginning of the production process and is then allocated to sales products in the respective quantities.



Nylon element: NH –(CH 2 )5 - CO



16,000 Kilometers

Producing one ton of Ultramid<sup>®</sup> Mass Balance polyamide instead of conventional polyamide can reduce as much CO<sub>2</sub> as emitted from driving a passenger car for 16,000 km.

Source: U.S. Environmental Protection Agency. Based on the comparison between Ultramid® Mass Balance and fossil feedstock based polyamide.

# **Recycle Nylon**

#### IWA FUNE INDU

• Eco-friendly

Post-production



- Very good impact strength
  - High strength and rigidity

Saving fresh CPL and use recycled CPL

#### W-4502-A04

- 95%F.D.Nylon Recycle 5%Spadex Dobby(2-WAY)
- DWR10/70~80%
- Weight: 146GSM±5

**Eco Nylon** 

#### HWA FUNE INDUSTR



**Eco Nylon** 

Recycled from buoy or net

High strength and rigidity

Saving fresh CPL and use recycled CPL

Dimensional ability

#### W-4882-C90

- 47%Nylon 53%Nylon Recycle OXFORD
- W/R,WP 30,000 m/m,MVP 10,000~15,000 g/m2/24hr
- Weight: 190GSM±5
- 53% BUOY YARN



- 37% renewable plant-based ingredients
- Quality assurance
- Eco-friendly
- High strength and soft hand feel

**Eco** Poly

#### W-3344-L03

- 53%Polyester 47%Polyester SORONA Twill Stretch(4-way)
- W/R, WP10,000m/m, MVP10,000g/m2/24hr
- Weight: 110 GSM±5%

#### **Sorona**®

#### SORONA PRODUCT

**37%** of the polymer is made using annually renewable plant-based ingredients. The revolutionary Bio-PDO compound turns a formerly chemical process into an ecoefficient biological one.

#### COMPARED TO NYLON 6

#### WA FUNE INDUSTRY CO

Uses **30%** less energy Releases **63%** fewer greenhouse gas emissions

sorona

COMPARED TO NYLON 6.6

Uses **40%** less energy Releases **56%** fewer greenhouse gas emissions



# Unifi

- 100% recyclable
- Quality assurance
- Recycled from PET bottles.
- With Unifi tags





#### **Eco** Poly

- W-676-1-L05-A
- 100% Polyester Recycle HI COUNT
- F.C.DWR20/70~80%,WP 15,000 m/m,MVP 15,000 g/m2/24hr
- Wight: 127GSM±5%
- REPREVE(UNIFI)/RECYCLE TPU(GRS)

# Recycle Polyester



**Eco Poly** 

- 100% recyclable
- Quality assurance
- Recycled from ocean trash.

#### W-4967-T107G

- 100%Polyester Recycle ribstop
- F.C.DWR10/70-80%, WP30,000m/m, MVP 30,000g/m2/24hr
- Wight: 134GSM±5%
- 3L suitable for water sport, rain coat

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#### HWA FUNE INDUSTRY CO., LTD.

# Eco Film

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A FUNE INDUSTRY CO., LTD

VA FUNE INDUSTRY CO, LTD

VA FUNE INDUSTRY CO., LT

FUNE



# Eco Film

#### **BIO/ RECYCLE TPU**

WP/MVP: 15K/15K Elasticity: 220% Solvent: None Recyclable: No Embrittlement point: - 40°C Melting point: 150°C

#### **BIO/ RECYCLE PU**

WP/MVP: 30K/20K Elasticity: 200% Solvent: DMF Recyclable: No Embrittlement point: - 40°C Melting point: 170°C

#### HWA FUNE INDUSTRY CO., LTD.

Eco (r)Poly Membrane WP/MVP: 15K/15K Elasticity: 300% Solvent: None

**Recyclable:** Yes **Embrittlement point**: -20~-40°C **Melting point:** 180°C

TPU

PU

Eco Poly Membrane

PET

PET

WP/MVP: 10K/10K Elasticity: X Solvent: None Recyclable: Yes Embrittlement point: - 20° Melting point: 170°C

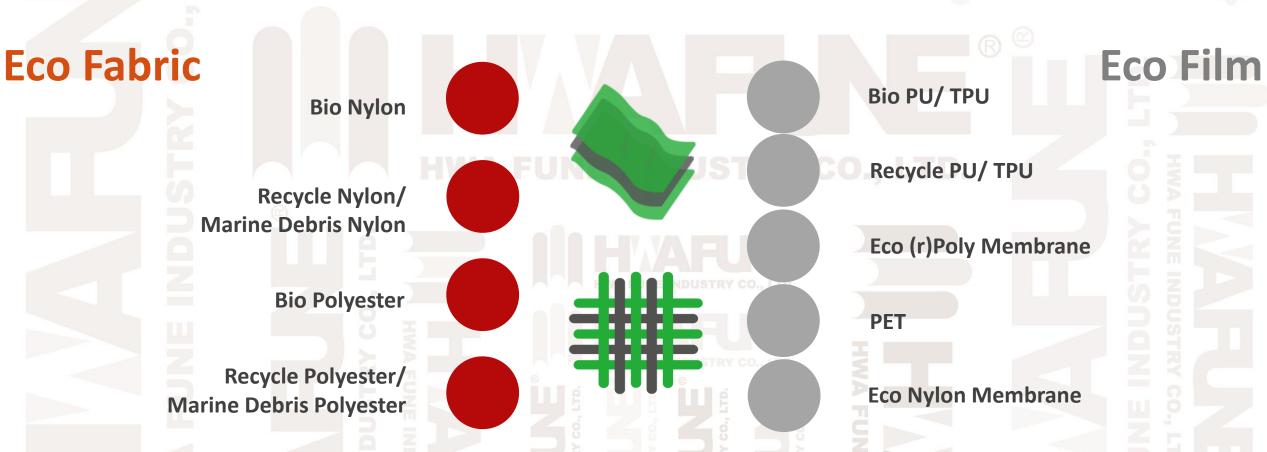
Eco Nylon Membrane

#### **Eco Nylon Membrane**

WP/MVP: 10K/10K Elasticity: X Solvent: None Recyclable: Yes Embrittlement point:- 20° Melting point: 180°C

## Mix and Match





Imagine you mix and match our Eco Fabric with Eco Film to create a total Eco Friendly Fabric~~ A combination beyond imagination~





Area of Use

Snow Outdoor Urban outfitting Work wear Water sport Cycling



# Thank you! SIT