



New Textile Concept developed

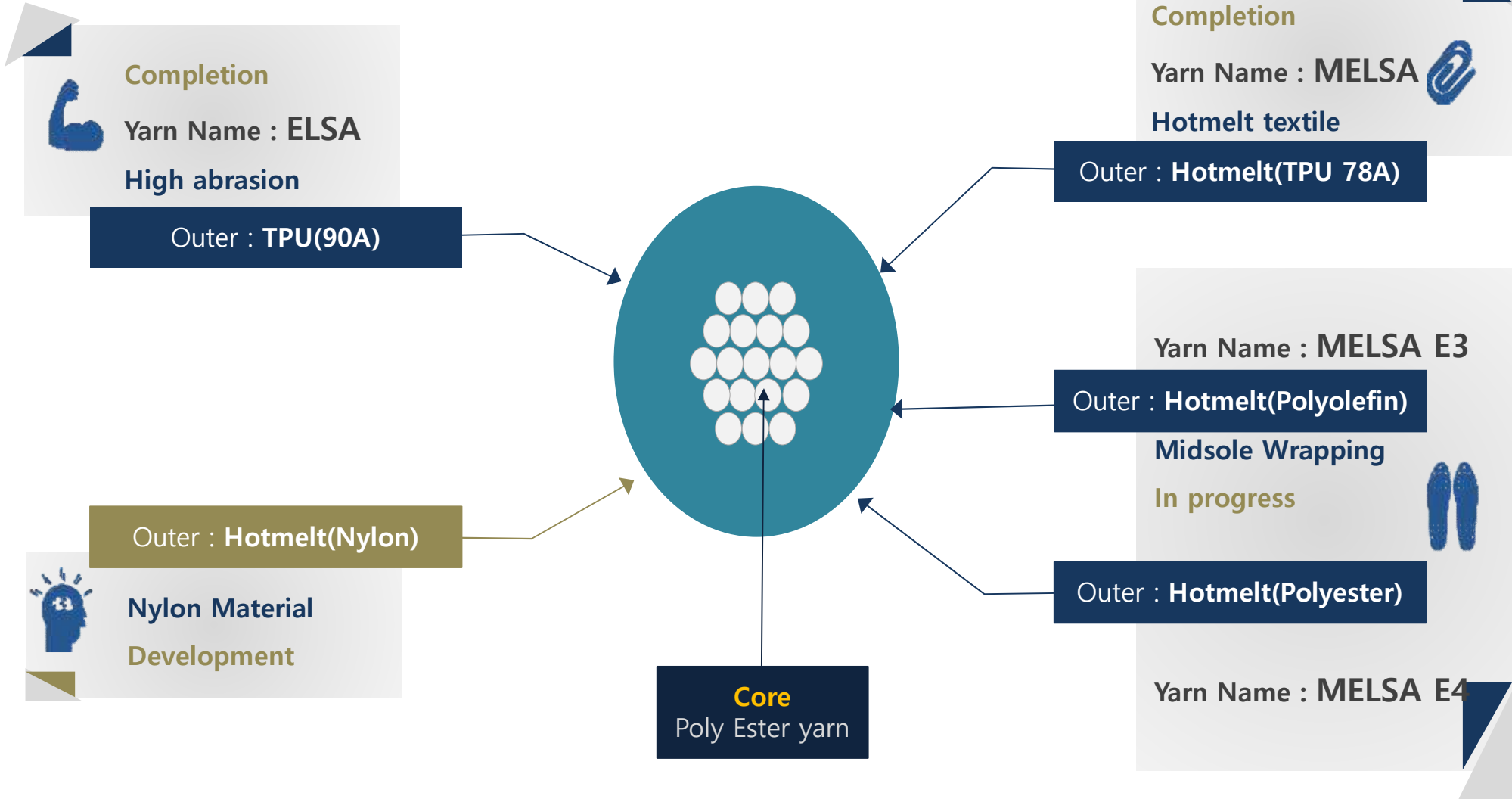
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### Yarn Composition & Construction



### Different key function



**Completion**

Yarn Name : ELSA

**Completion**

Yarn Name : MELSA



Elsa (TPU yarn)		Melsa (HotMelt yarn)
<b>No</b>	<b>Adhesive function</b>	<b>Yes</b>
<b>Yes</b>	<b>Need to other glue</b>	<b>No</b>
<b>Stiff</b>	<b>Touch</b>	<b>Soft</b>
<b>Good</b>	<b>Abrasion</b>	<b>Good</b>

**Melsa has multi function.**

### Elsa and Melsa Comparison

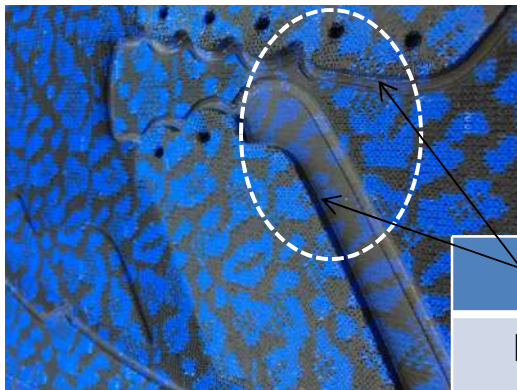


Completion

Yarn Name : ELSA

Completion

Yarn Name : MELSA



Working temp. : 135°C  
 Heating time : 20sec  
 Cooling time : 200sec



Unclear	Edge side	Clear
Not melted	Surface	melted
<b>160°C</b>	Melting point	<b>125°C</b>

**Melsa can be molded in the lower temperature than Elsa.  
 Which means not damaging other materials.**

### Textile Construction Range

Coating yarn construction

#### Completion



Yarn Name : ELSA

High abrasion

#### Completion

Yarn Name : MELSA

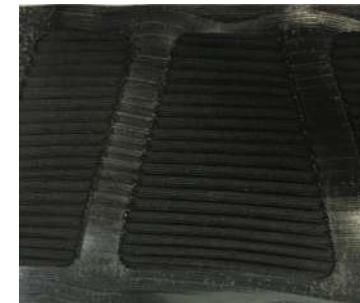
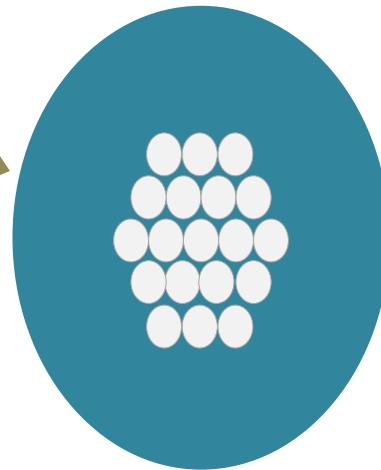
Hotmelt textile



Elsa : Only used on surface



Melsa : Top, bottom and inside are available



#### Melsa Material

- After heat pressing, the adhesive moves to the surface or the backside.

## Shots by microscope



# Hypertex

## What is Hyper tex?

Poly yarn and Hotmelt coated yarn

Flat knitting Fabric made in rolls.

## Hyper tex

Hide Hotmelt yarn between Two layer fabric by Poly yarn

Hotmelt yarn  
(BLK, Red)



Poly yarn  
(WHT)

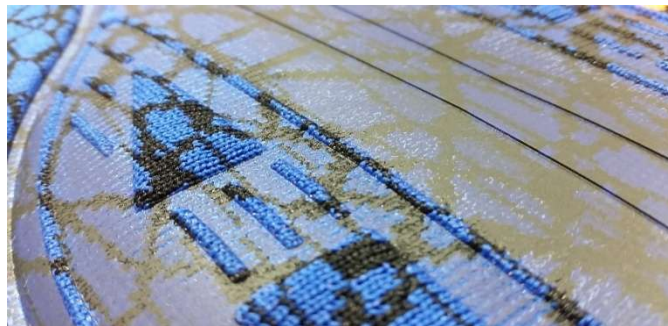


## Various effect after Heat Press by mold

Toe cap



Heel



## Info.

### • Composition

Flat knitting fabric with Poly 150D and Hotmelt adhesive coated yarn

### • Properties

Various Texture with pattern  
Various Softness effect with Heat pressing

### • Strong Point

High ultimate tensile strength  
Create various pattern & physical  
just heat press with pattern mold,  
High abrasion at heat pressed part

### • Weak Point

Stiff at Heat pressed part

### • Spec.

1.0~1.3mm x max 60"

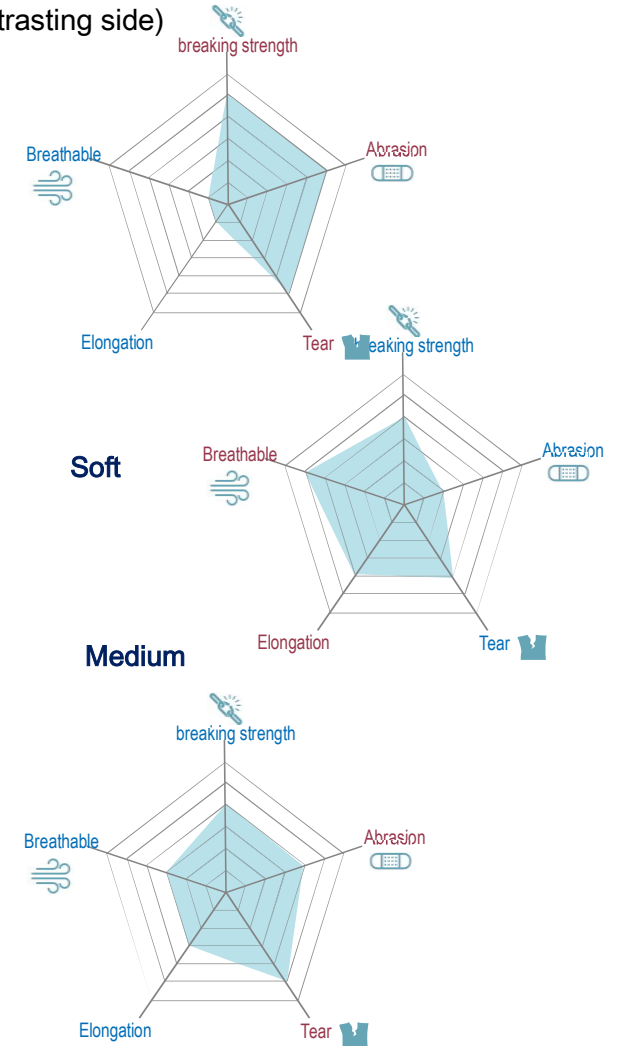


# Hypertex Spider

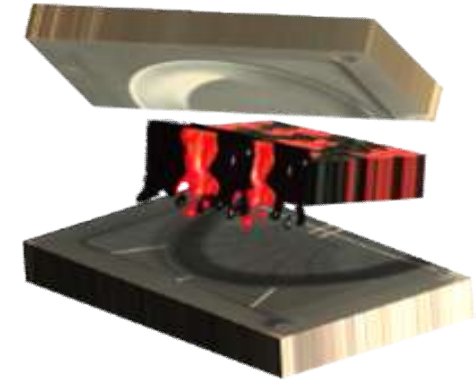
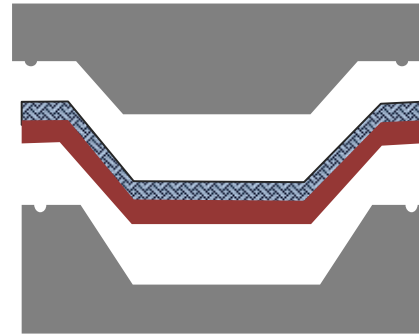
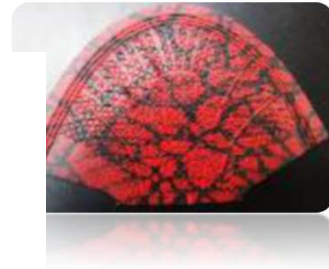
## Concepts and Property



Hard (Contrasting side)



### Hypertex 3D –toe cap (shall pattern)



3D mold process !!



Definition p  
attern



Depinition p  
attern

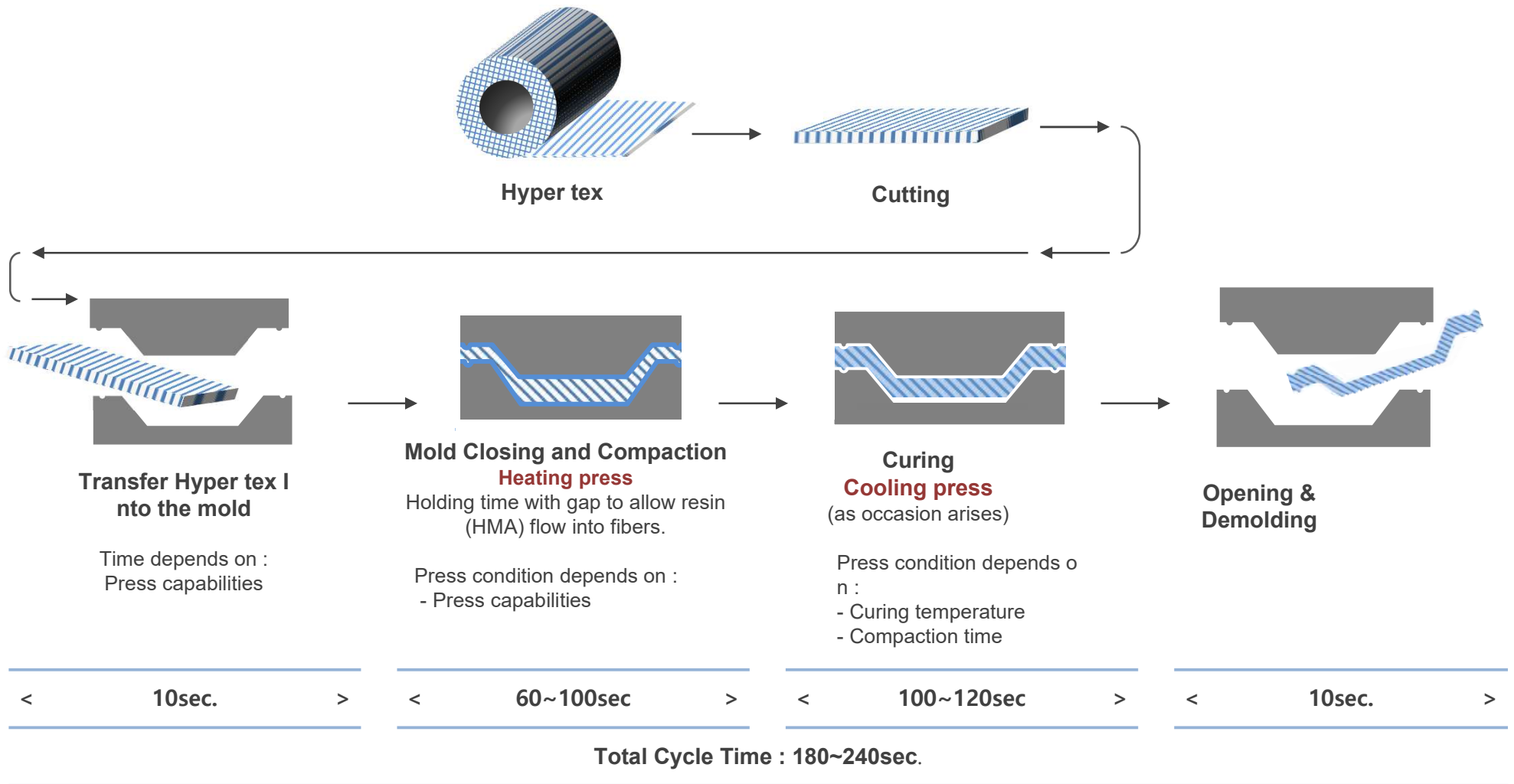


Other line p  
attern

**Developed 3D pattern**



## How to mold Hypertex 3D?



# HyperTex Line

## Hyper tex line with optical illusion

Flat knitting machine

Hotmelt coated yarn and Poly yarn



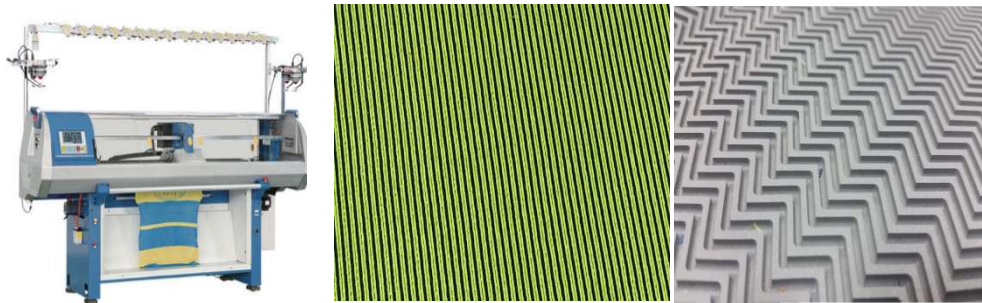
Repeat pattern with emboss mold



## Optical illusion by heat pressing

Normal heat press machine

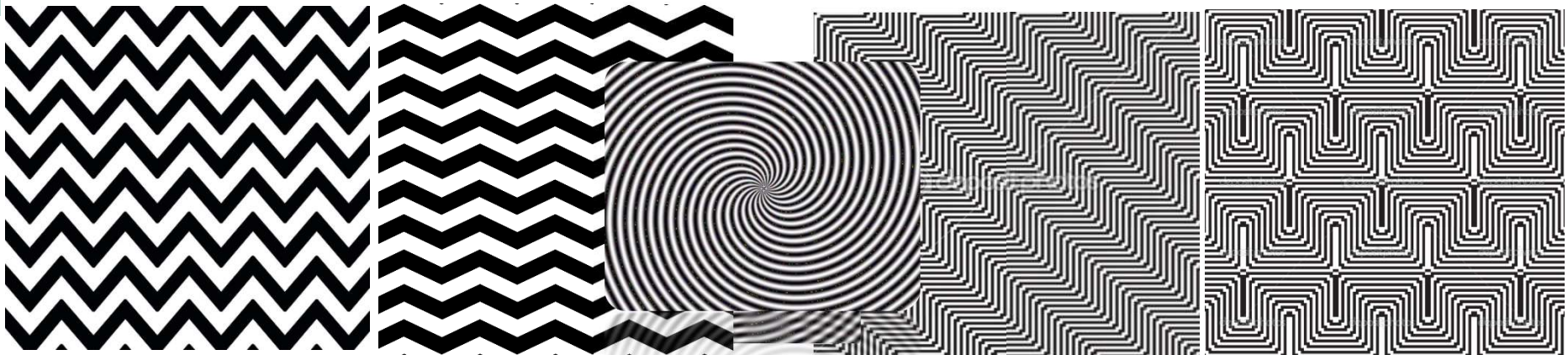
Oil press machine



or



## Patterns for optical illusion



For better effect, we recommend as following

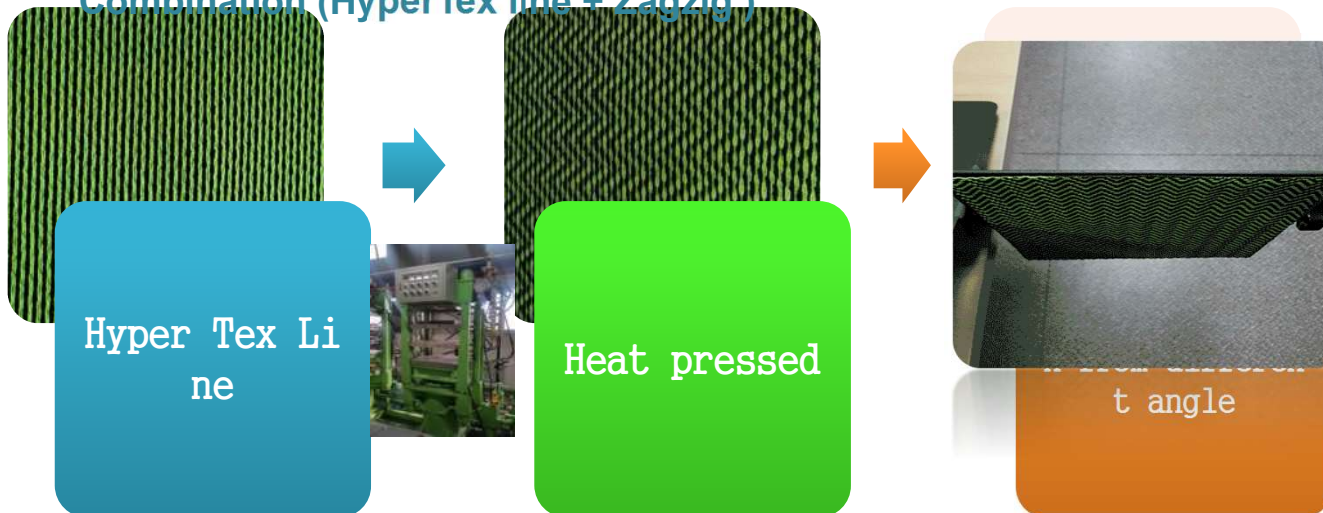
1. The pattern should be repeated.
2. the thin line is better than thick
3. Curved, wavy, zigzag would be greater than straight, broken line

## HyperTex application example

Combination (HyperTex line + circle)



Combination (HyperTex line + Zagzig)



### Info.

- **Composition**  
Flat knitting fabric with Poly 150D and Hotmelt adhesive coated yarn
- **Properties**  
Various Texture with pattern  
Optical illusion effect
- **Strong Point**  
High ultimate tensile strength  
Create various pattern & physical  
just heat press with pattern mold,  
High abrasion at heat pressed part
- **Weak Point**  
A little Stiff at Heat pressed part
- **Spec.**  
1.0~1.3mm x max 60"

## HyperTex line 2

### Info.

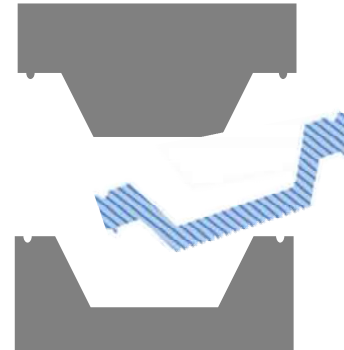
- **Composition**  
Flat knitting fabric with Poly 150D and Hotmelt adhesive coated yarn
- **Properties**  
Various Texture with light weight & stretchable
- **Strong Point**  
Overall good physical property
- **Weak Point**  
Not clear mold effect
- **Spec.**  
1.0~1.3mm x max 60"



\*Light weight



\*Stretchable



\*moldable

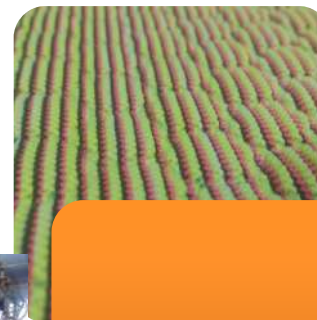
### Advantages



lightweight



stretchable



moldable

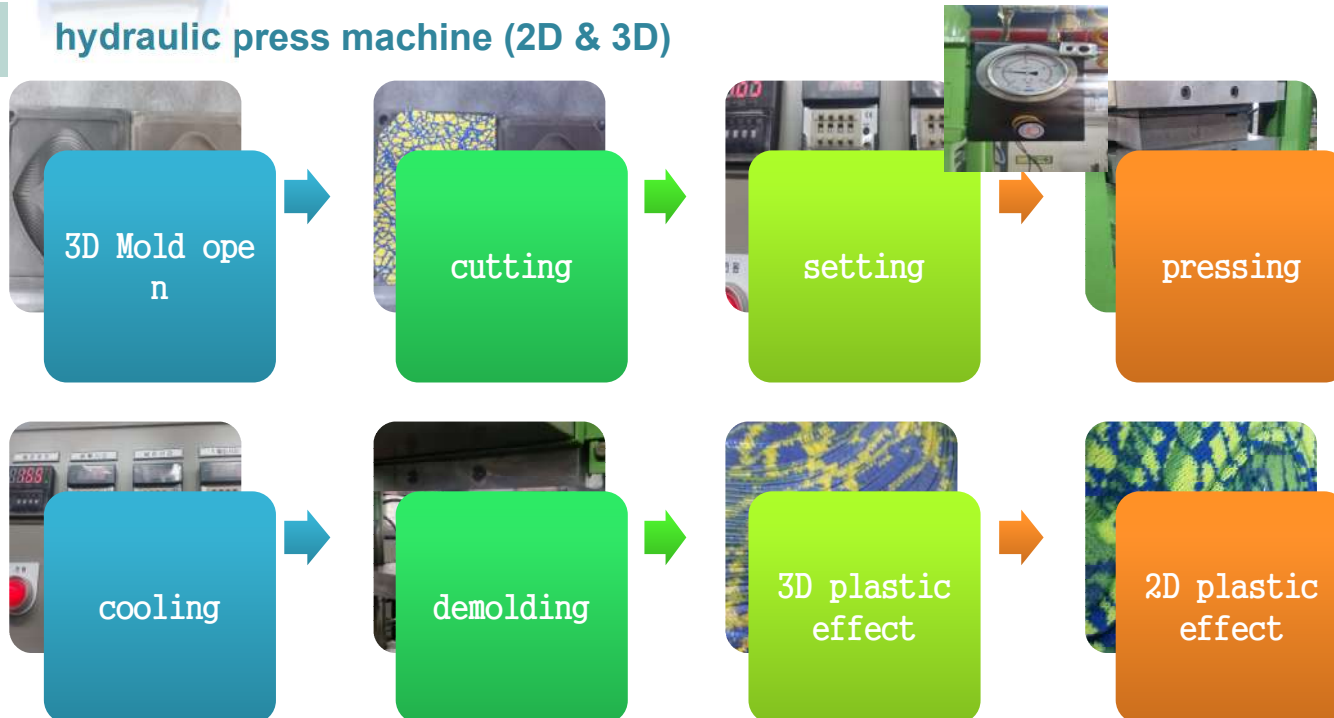


# HyperTex SOP

## normal heat-press machine & hydraulic press for general patte



## hydraulic press machine (2D & 3D)



### Info.

- **machine & mold**  
Either normal heat press machine or oil press machine.  
\*Male mold
- **working condition(N'press)**  
Heating : 140C~150, 300sec±50sec  
Cooling : 20~30C, 100±20sec  
Pressure : 50~70kg
- **N.B**  
TF coating on mold is necessary  
The working condition might be different from factory.

### Info.

- **machine & mold**  
Only hydraulic press machine  
\*male + female mold
- **working condition(O'press)**  
Heating : 150~160C, 100sec±20sec  
Cooling : 20~30C, 120sec±30sec  
Pressure : 80~90kg
- **N.B**  
plastic effect depends on mold design such as mold depth, pattern size.  
The products might be distorted due to not enough cooling.



THE

END

Thank you

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