

International expertise in solvent free &  
ECO friendly adhesive technology  
Professional PRODUCER in Taiwan for 30  
years  
OUR BUYERS : ADIDAS, NIKE, FENGTHAI..ETC

**KEY PRODUCTS :**  
HOT MELT ADHESIVE FILMS  
INK JET HEAT TRANSFER FILMS  
**TURNOVER :** 3 MILLION USD

**EMPLOYEES :** 25

**STATE OF ART MACHINES :**  
2 T-DIE EXTRUDER / 1 BLOW EXTRUDER  
/ EUROPEAN THICKNESS QUALITY  
MEASUREMENT MACHINE & CONTINUE  
EXPANSION IN 2020

**PRODUCTION CAPACITY:**  
T-DIE / SHIFT – 40 MICRONS \*10,000 M ~  
200 MICRONS \* 5000 M  
BLOWING / SHIFT – 40 MICRONS \*15,000  
M

**OTHERS FACILITY:** IN HOUSE OEM  
LAMINATION  
[HTTPS://YOUTU.BE/Q5JUV9W2\\_BU](https://youtu.be/Q5JUV9W2_BU)

INTERNATIONAL R&D EQUIPMENT







# Lab Instruments



Heat Press



Programmable Temperature & Humidity Tester



Rotation Rheometer



Melt Index Machine



Tensile Machine

# TEMPERATURE / TIME / PRESSURE / QUALITY TESTS

# SOP

For different materials and different film thickness, the conditions should be adjusted.

## COMMON PROCESSING METHODS / CAUTIONS

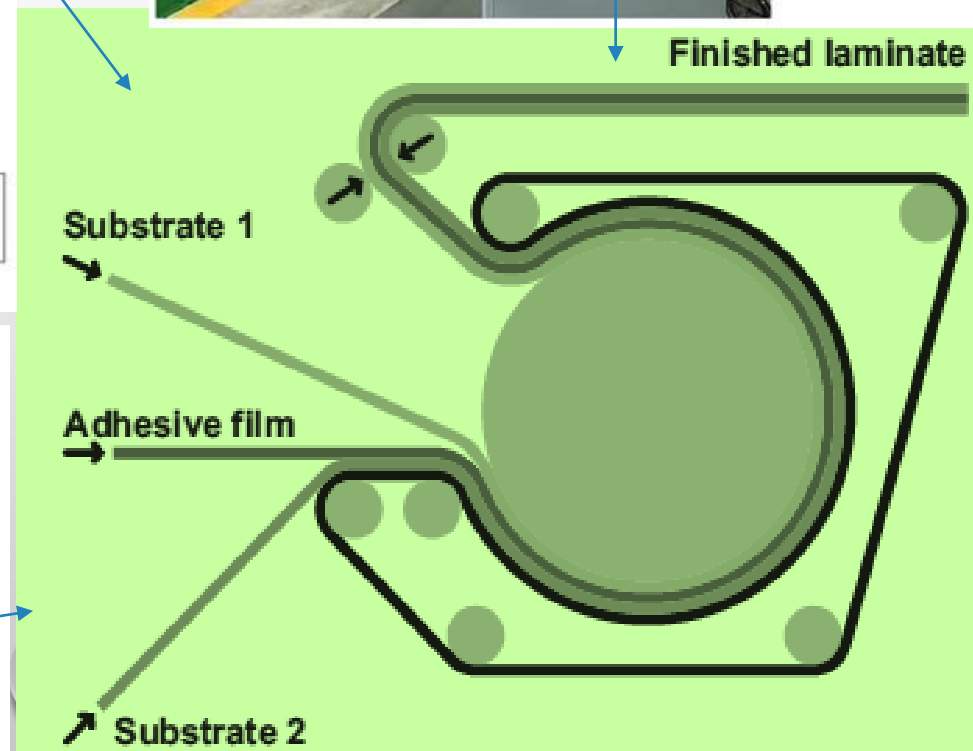


Hard Hot roller  
2-layer iron roller with  
Teflon coating

Soft roller made of Silicon with  
Hardness of Shore A 80 degree



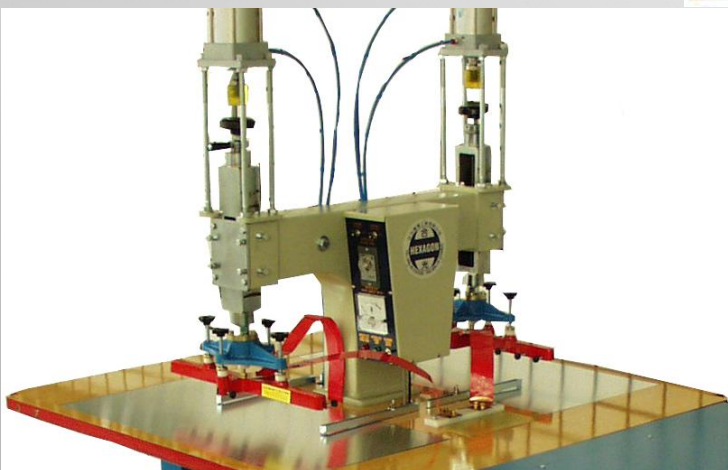
Finished laminate



Substrate 1

Adhesive film

Substrate 2



Real temperature 118  
degree C

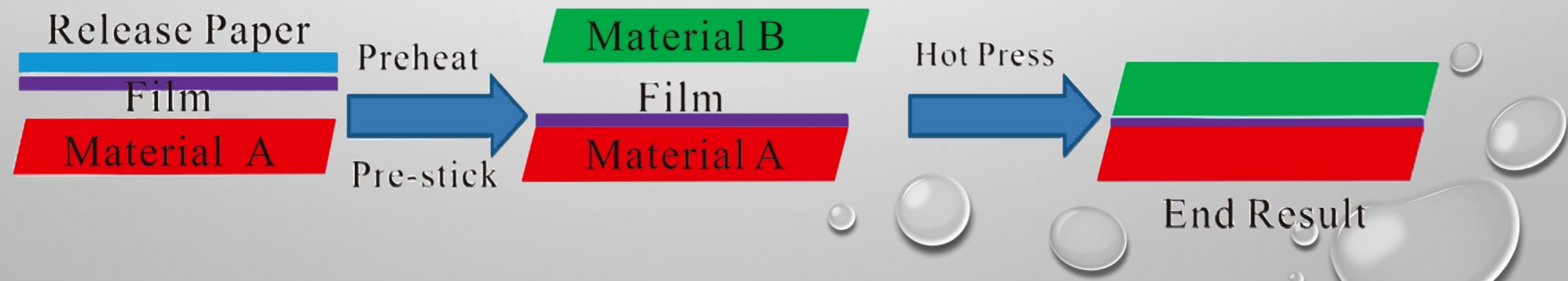




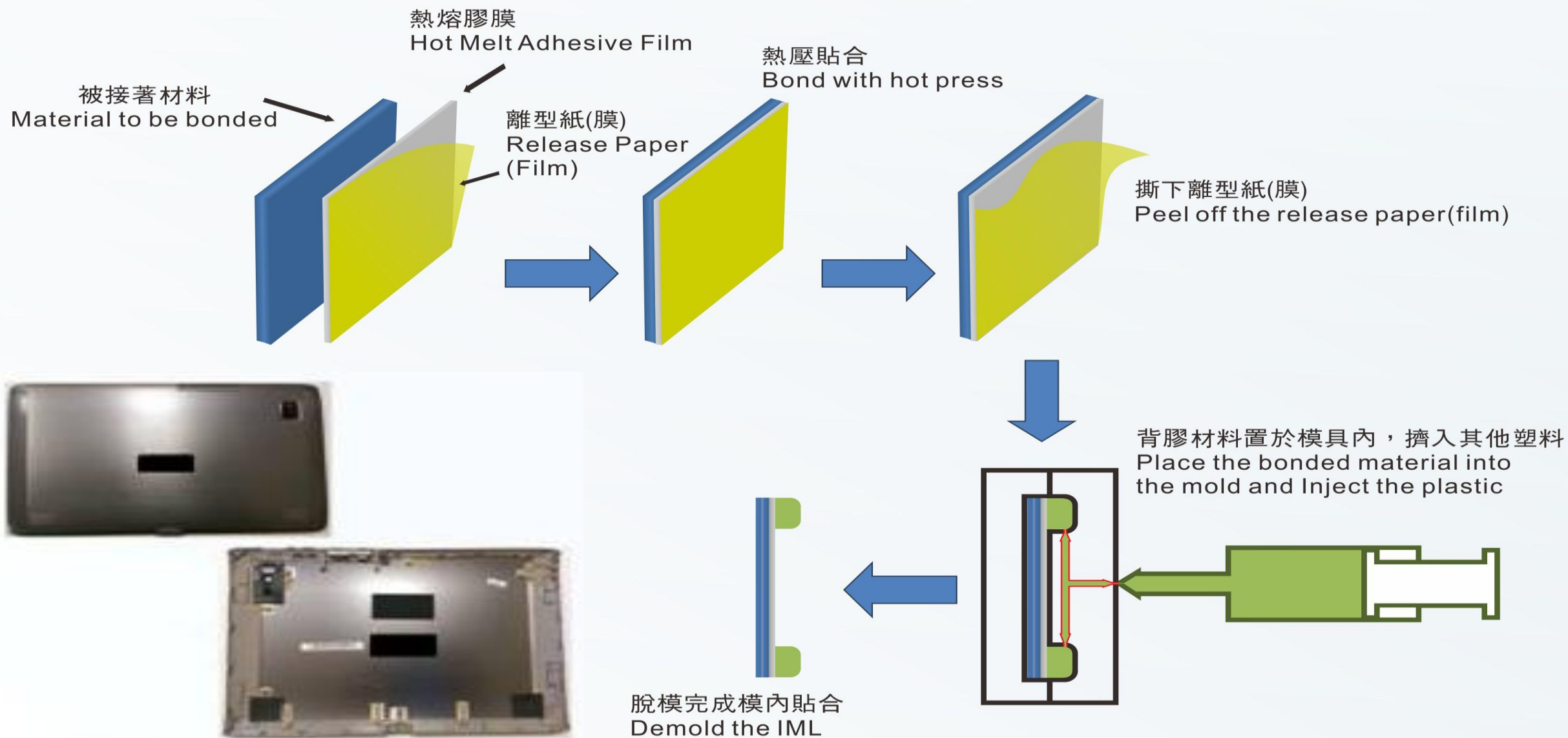
# HOW TO SELECT A FILM

- What material you want to adhered
- With what Operation conditions you are going to work
- What standards are needed to pass
- Material surfaces determines film thickness needed

## Hot Melt Film Operation Guide

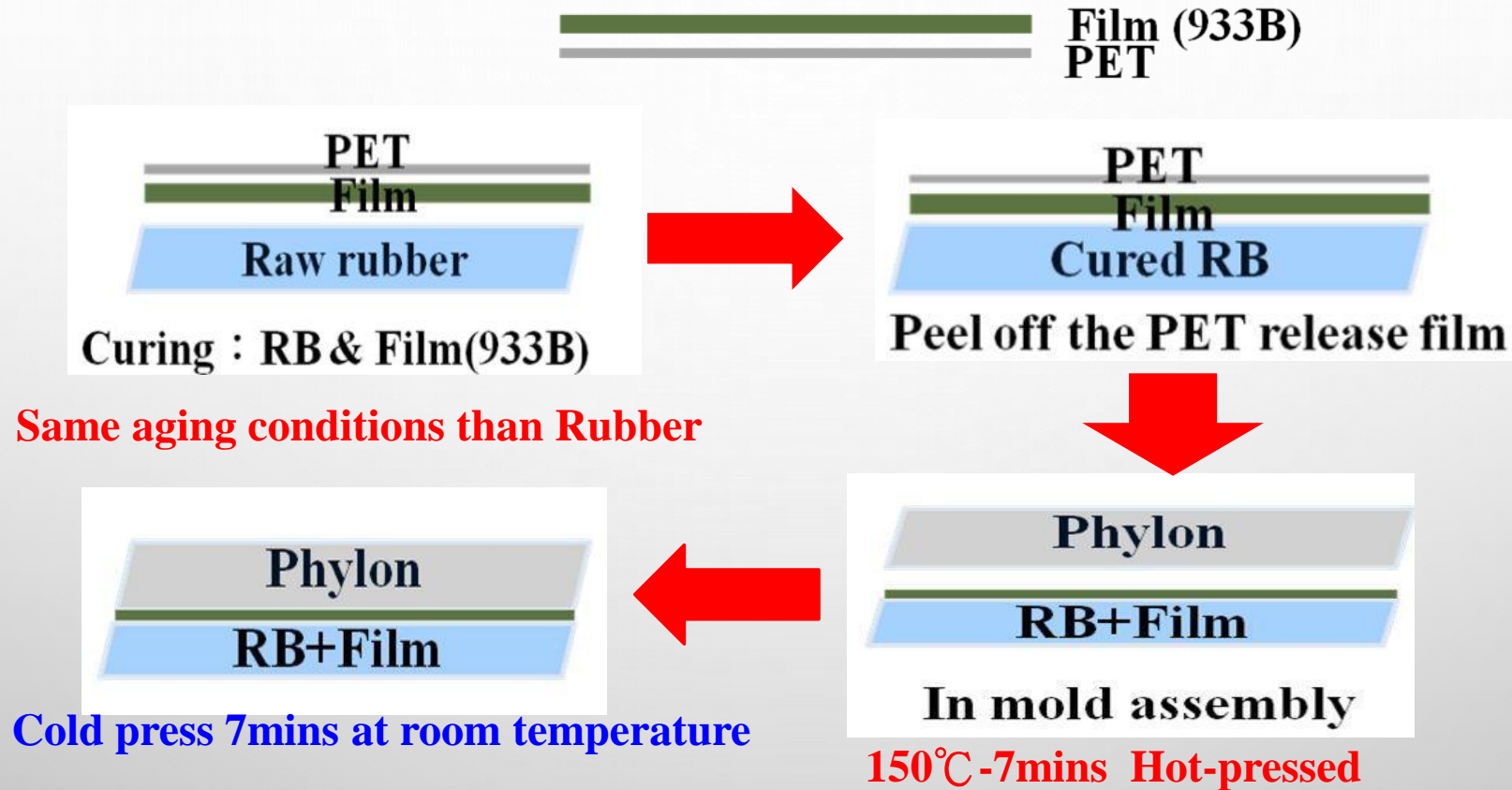


# 模內貼合 (IML) 操作流程 In-Mold Lamination Operation Procedure





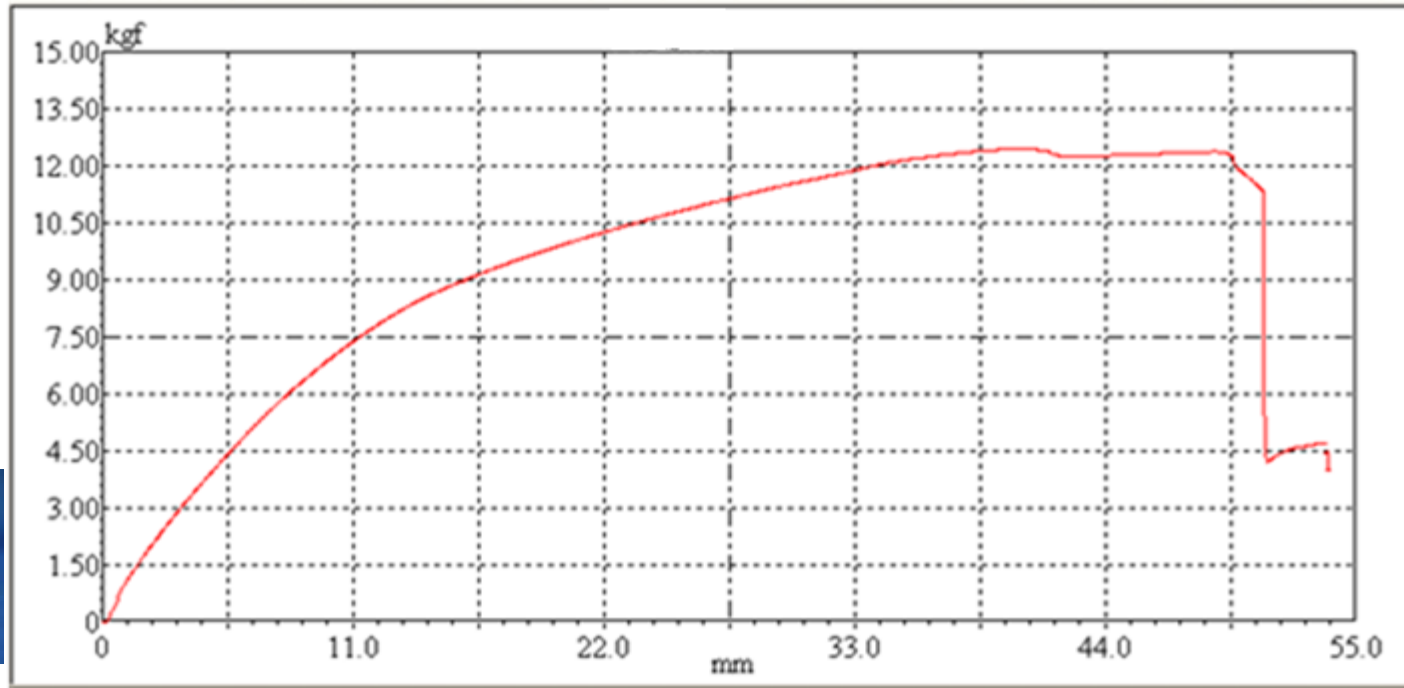
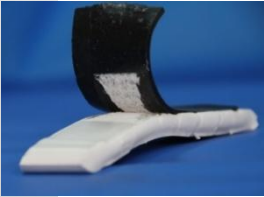
# RB v.s. Phylon In Mold Lamination EH-933B Operating Process





# EH-933B Test Result

Peel Force : Final Bonding Strength(after 24hrs)



Peel Force (kgf/cm)	Failure mode
4.72	Phylon tear

$$\text{Peel force (kgf/cm)} = \frac{\text{force(kgf)}}{\text{sample width(cm)}}$$

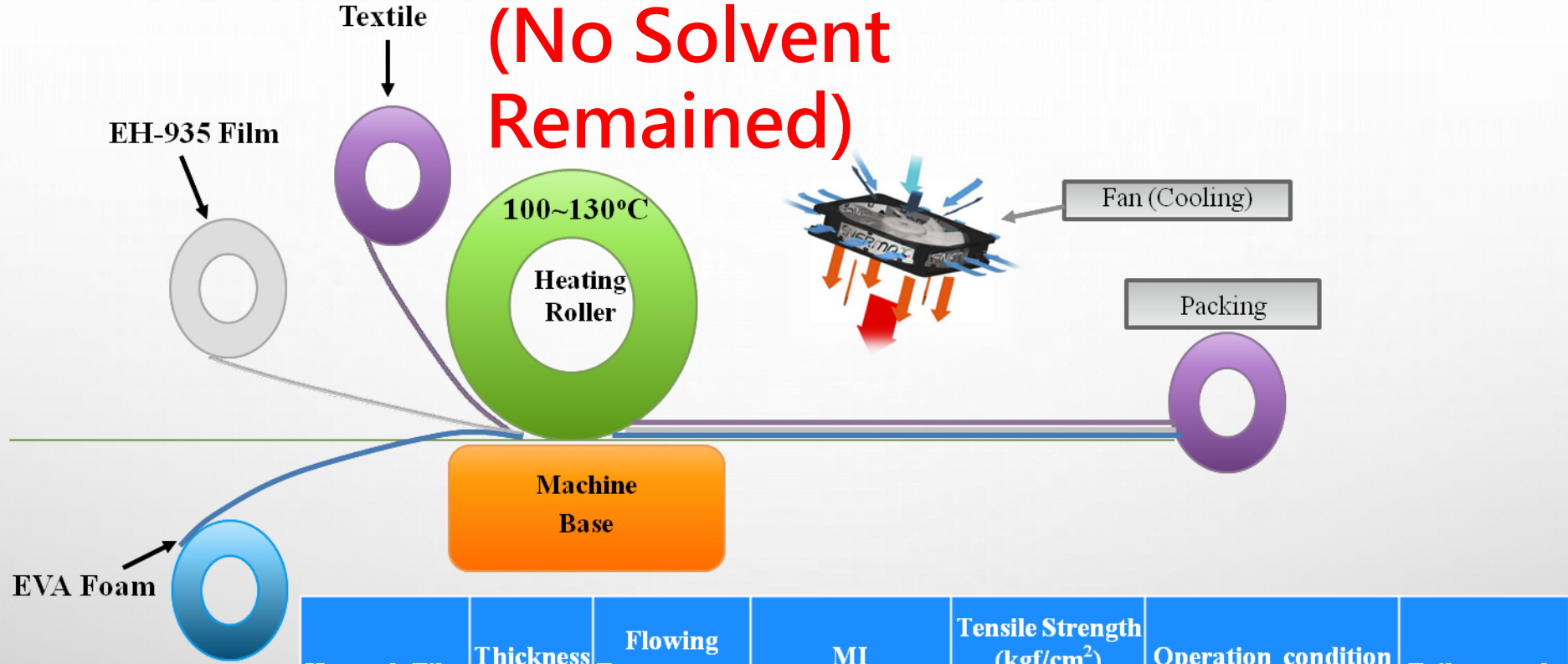








# EH-935 Operating Process



Hot melt Film	Thickness (mm)	Flowing Temperature (°C)	MI (190 °C, g/10min)	Tensile Strength (kgf/cm <sup>2</sup> )		Operation condition (°C_kg/cm <sup>2</sup> _sec)	Failure mode
				Weft	Warp		
Korea 3050	0.04	111	15	456	565	120_2_25	EVA Foam tear
935	0.04	115	7	1292	1436	120_2_25	EVA Foam tear
935F	0.04	88	20	940	1661	105_2_30	EVA Foam tear

\*Operating Condition: Depend on thickness of the HMF and surface structure of the materials.





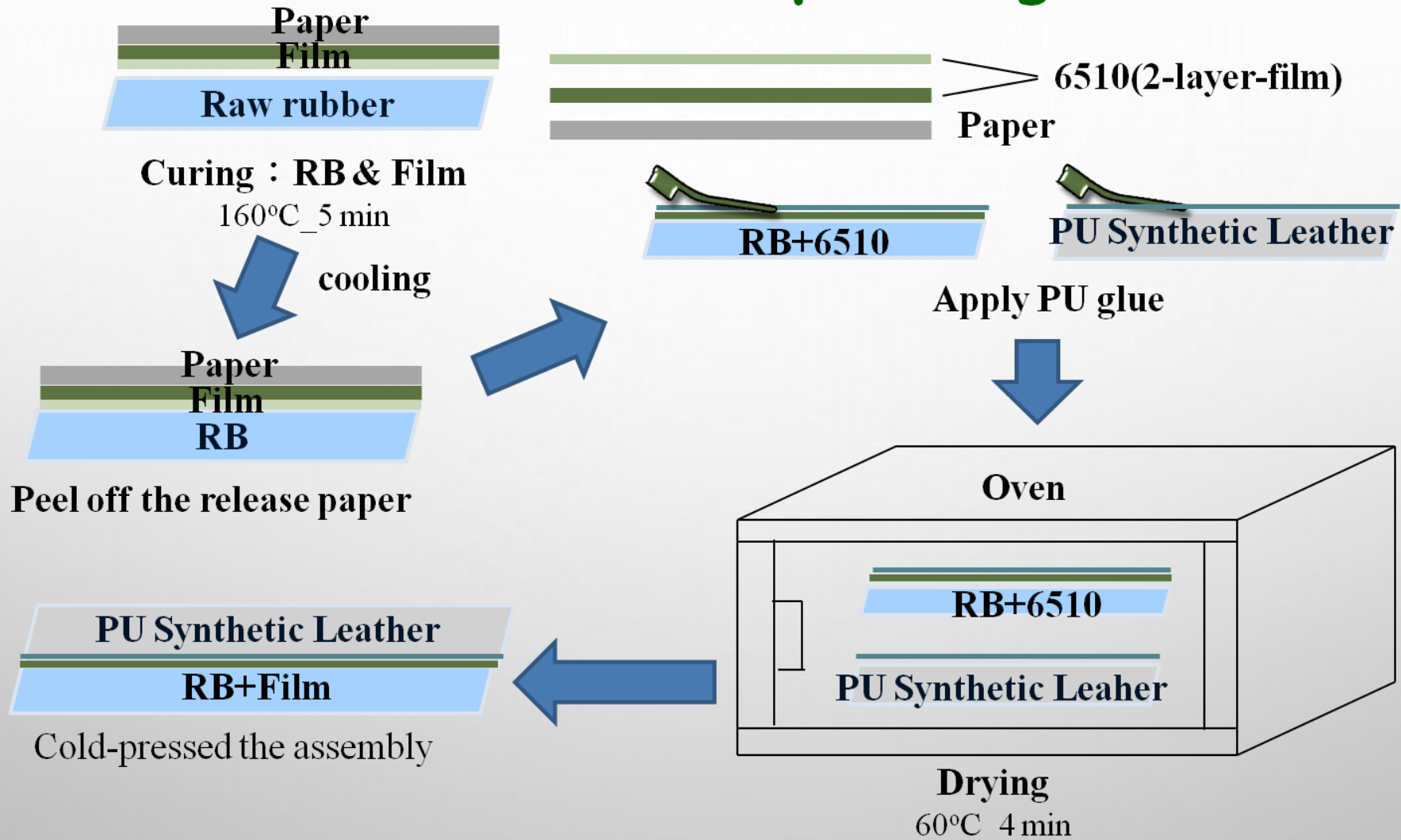


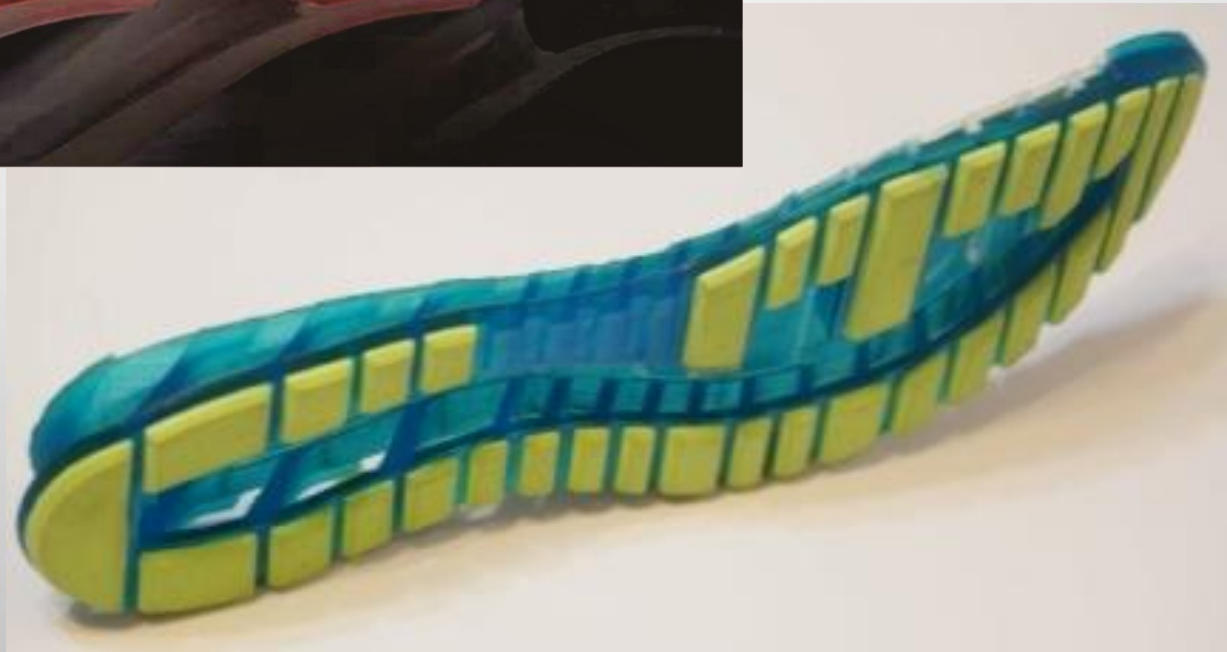
# RB Surface Modifying Process with Bonding to PU Leather:6510 Operating Process

CH6510

OR

CH9510



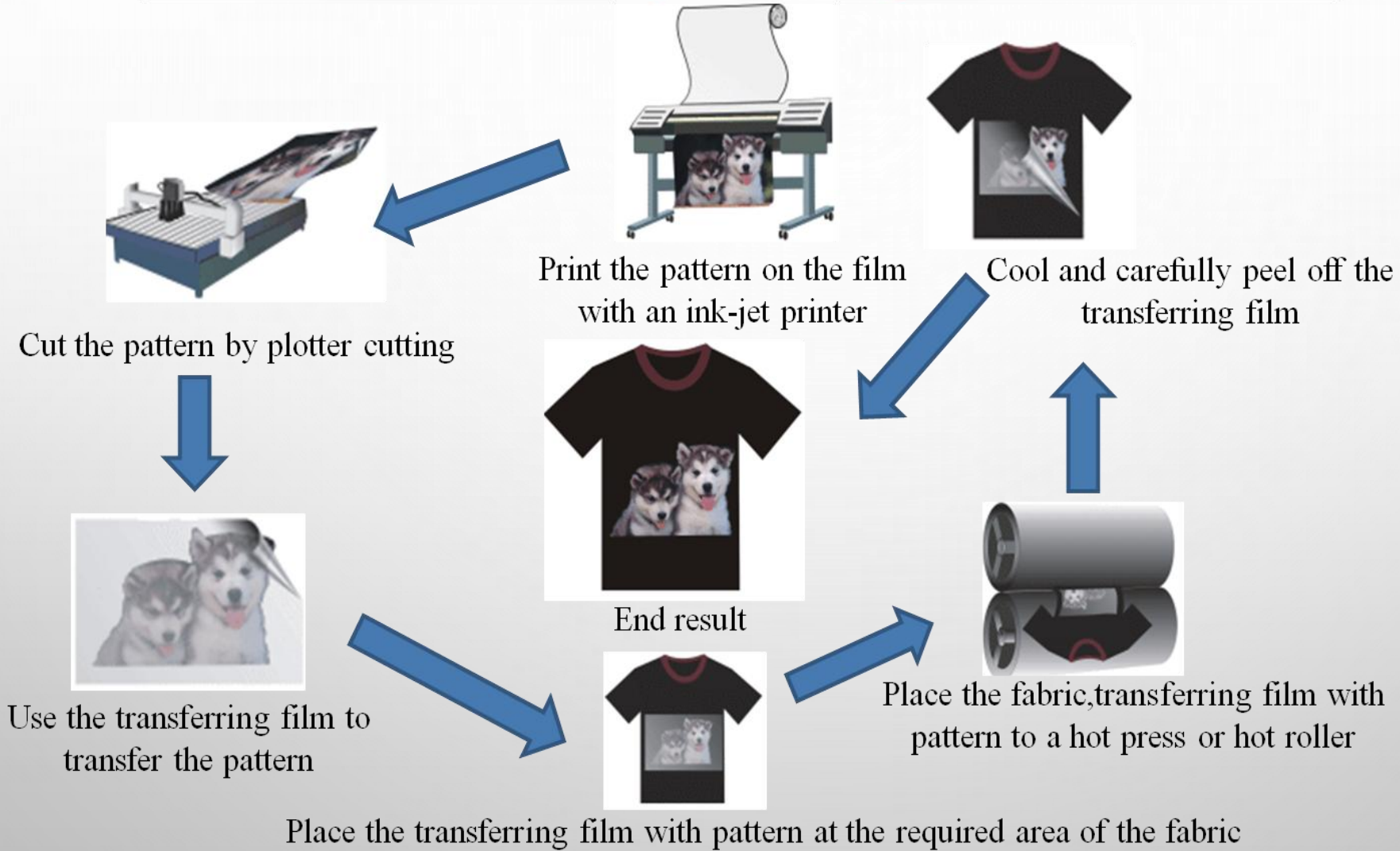






# W-265E Operating Process

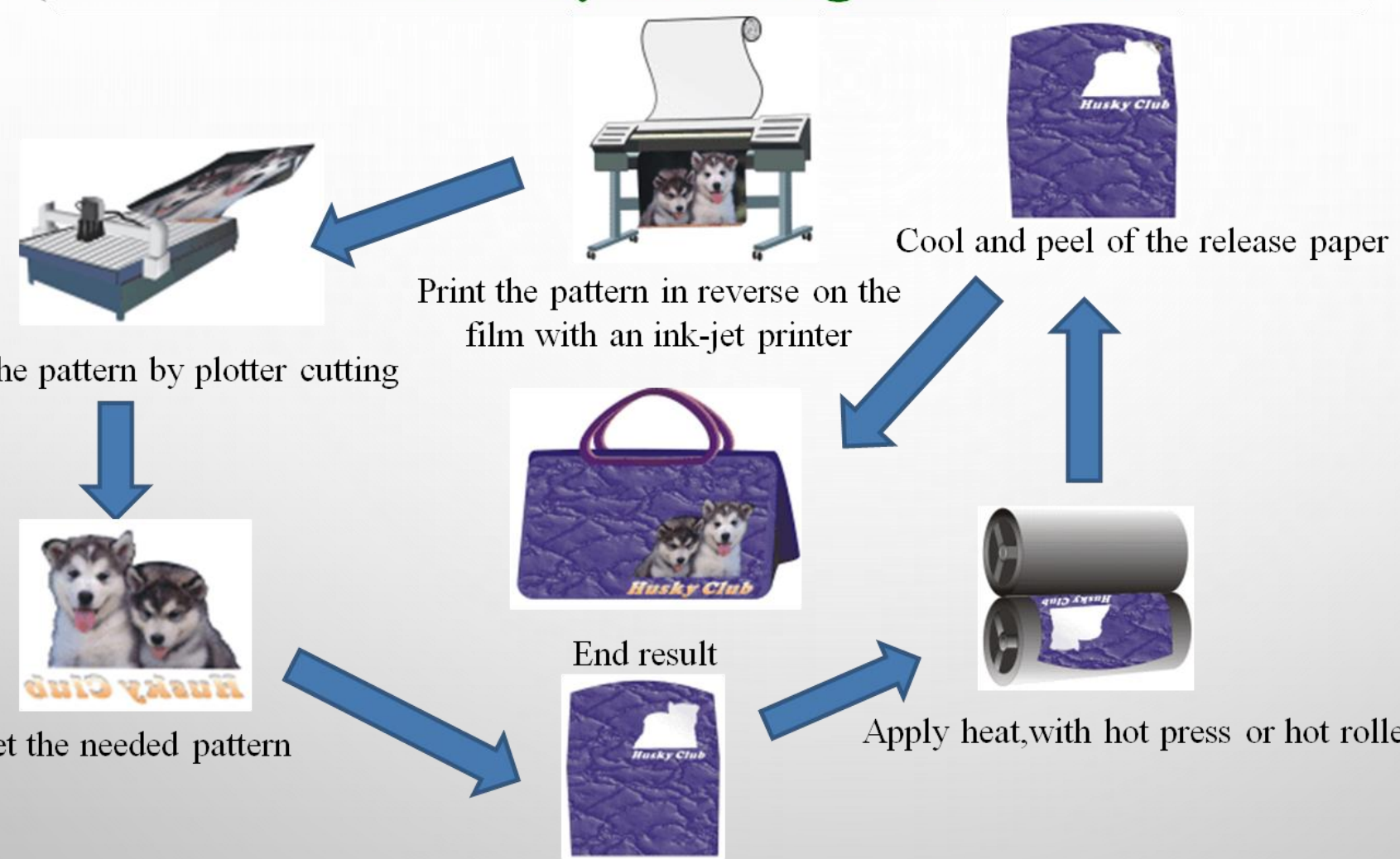
# HEAT TRANSFER FILMS





# 27205 Operating Process

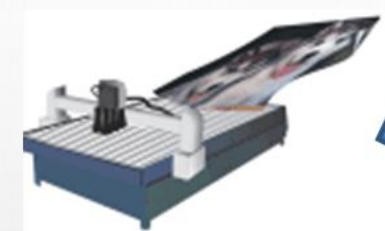
# HEAT TRANSFER FILMS



Get the needed pattern



Cut the pattern by plotter cutting



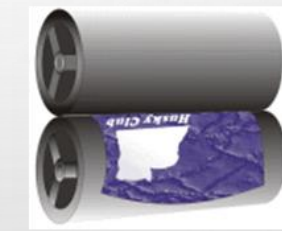
Print the pattern in reverse on the film with an ink-jet printer



Place the printed side over the synthetic leather



Apply heat, with hot press or hot roller



Cool and peel of the release paper



End result







# Metal Bonding

## Factors for consideration

1. Material to be bonded.
2. Material' s heat resistance.
3. Test conditions
4. Processing methods



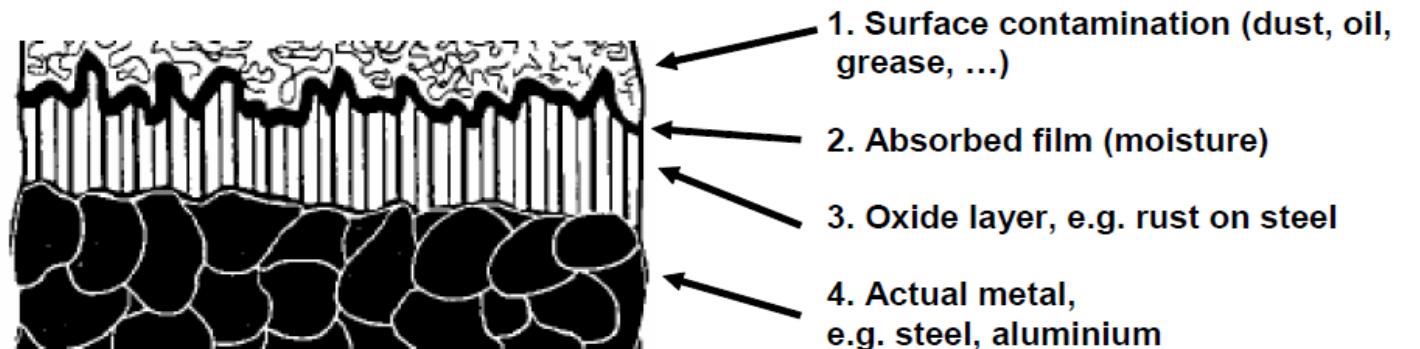
# Principle of Metal Bonding- with & without Primer

**Without Primer** : HMA itself is a polymer has to be modified to have a functional group, that is able to bond metals directly, under suitable conditions, e.g. temperature, pressure and timing.

**With Primer** : When HMA cannot bond with metals, the metal surfaces will need to undergo chemical treatment. Our primer technologies are highly developed.

# Metal Surfaces

- Contaminants that create bonding problems on metal surfaces include grease, dust, dirt, oil and oxide caused by air corrosion. Grease and oil not only interfere with bonding, but also make certain types of preparation operations, such as chemical surface modification ineffective.







# Primer Objective

1. Thoroughly clean surface from oils and dust.
2. Rid any oxidization on the metal's surface either with an acid bath or abrasion.
3. Allow for setting time after adhesion.
4. Treatments on the metal surface such as plating may affect results.
5. Anodized film is densely oxidized aluminum which forms a surface sealing property. Thus prior to priming the surface, heat treat to at least 160 °C. Once cooled, apply the primer which will enable better primer wetting outcomes.

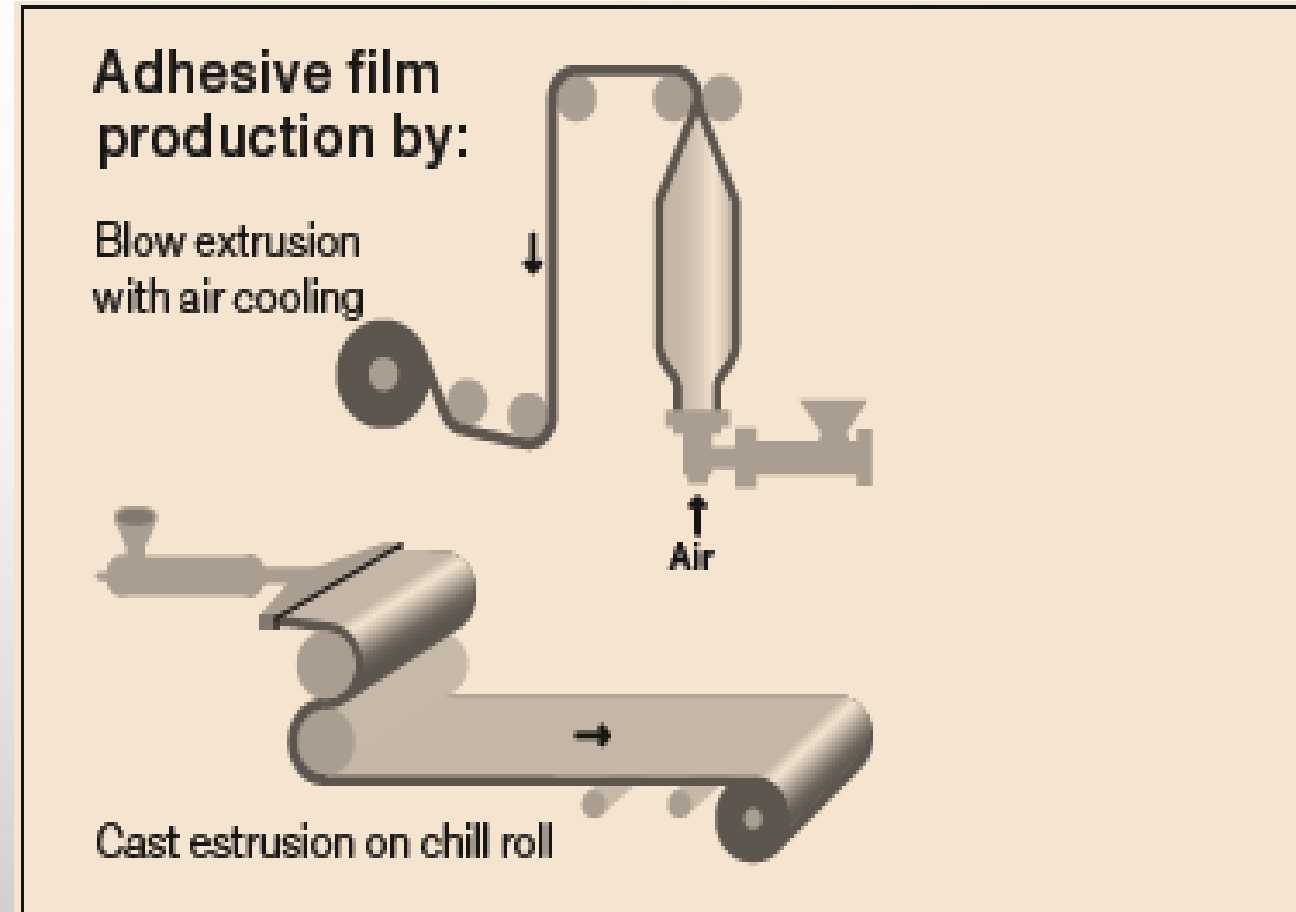


# HMA FILMS FOR METALS

Material A	Material B	PRIMER	Film
Zinc-plated board	PE	Not Required	EH-931
Stainless Steel	PP	Not Required	EH-932
	Fiber cloth	Not Required	EH-931, EH-346
Aluminum Bronze	Fiber cloth	Not Required	EH-342
	Fiber cloth	Not Required	EH-342
Stainless Steel	PU	Required	CH-824
	PC	Required	CH-910
Aluminium Bronze	PU	Required	CH824

# VERSATILE APPLICATIONS

- TEXTILES & FOOTWEAR
- AUTOMOTIVE CAR ROOF LINER
- HOME OR CONSTRUCTION HDPE & STEEL ROOF APPLICATIONS
- METAL APPLICATIONS
- CARBON FIBER COMPOSITES
- GLASS BONDING & WOOD
- PLASTICS
- ELECTRONICS
- SADDLE
- KITCHEN & BATHROOM DESIGNS
- SEAM TAPES
- SPLINTS







3c mobie case



933B\_2



CLOTH\_WITH NO SEW\_LOG



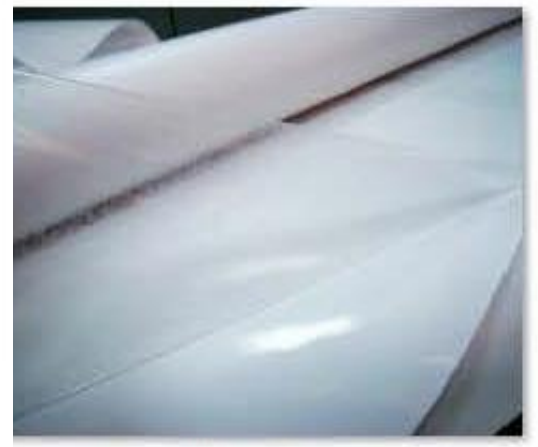
footwaer-vamp



BICYCLE Saddle



no sew underwear2



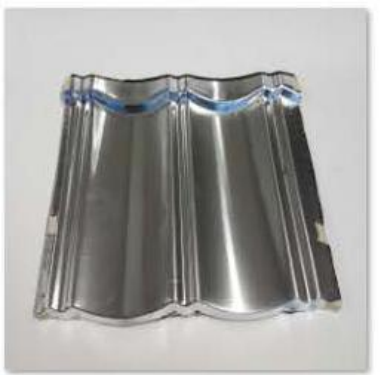
adhesive film with release film



Printable heat transfer pu film



HLT APPLICATION FOR LOGO



roof and metal



carbon fiber



carbon fiber



no release paper



splint hand

## **VIDEO LINKS**

**933B INSOLE AND OUTSOLE IN MOLD LAMINATION (TEST PIECE OPERATION AND TENSILE TEST) :** [HTTPS://DRIVE.GOOGLE.COM/FILE/D/0B-EL3VW93AGHSJJWC01KWKDUMLE/VIEW?USP=SHARING](https://drive.google.com/file/d/0B-EL3VW93AGHSJJWC01KWKDUMLE/view?usp=sharing)

**933B APPLICATION (OUTSOLE APPLICATION) :**  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/0B-EL3VW93AGHOWHVCHBSTVZVZMM/VIEW?USP=SHARING](https://drive.google.com/file/d/0B-EL3VW93AGHOWHVCHBSTVZVZMM/view?usp=sharing)

**3 IN ONE (EVA FOAM/HMF:935F/TEXTILE :**  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/0B4HL0HBIJTYGQWLDAFRLMWEZSKU/VIEW?USP=SHARING](https://drive.google.com/file/d/0B4HL0HBIJTYGQWLDAFRLMWEZSKU/view?usp=sharing)

**TRANSFER COLOR FILM OF POCKET AND ZIPPER (NOT MY VIDEO, I JUST ADDED SUBTITLES.) :**  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/1OJQZBY1YCSQ3XEMINVL0HXH6RXWJGCFJ/VIEW?USP=SHARING](https://drive.google.com/file/d/1OJQZBY1YCSQ3XEMINVL0HXH6RXWJGCFJ/VIEW?usp=sharing)

**PRINTABLE TRANSFER FILM W-265 PERFORM PROCEDURE**  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/0B-EL3VW93AGHZU9HM29VOHDZOGM/VIEW?USP=SHARING](https://drive.google.com/file/d/0B-EL3VW93AGHZU9HM29VOHDZOGM/view?usp=sharing)

**PRINTABLE TRANSFER FILM 27205 PERFORM PROCEDURE**  
[HTTPS://DRIVE.GOOGLE.COM/FILE/D/0B-EL3VW93AGHRHMYWWJWTKFMWTA/VIEW?USP=SHARING](https://drive.google.com/file/d/0B-EL3VW93AGHRHMYWWJWTKFMWTA/view?usp=sharing)

## **IMPORTANT LINKS**

**THANK YOU**

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