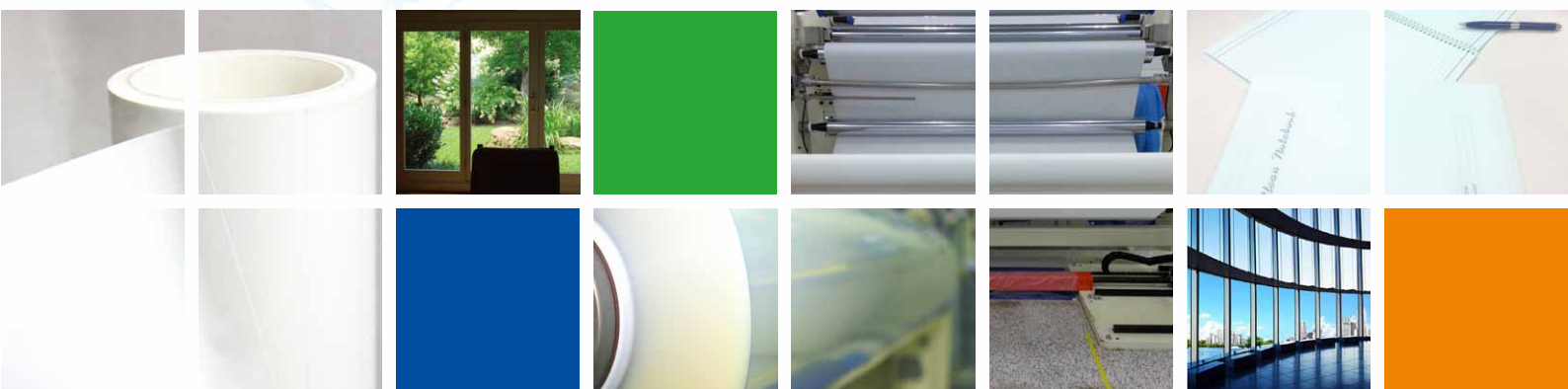


TNF

CORPORATION



TNF would be best company for professional development of Special paper and film

TNF has developed high performance, clean special film related POL and LCD line with reasonable price aiming for win-win business.

As the special material and film for LCD, SEMI CONDUCTOR, PCB should be equipped with high performance, price competitiveness and high class of cleanness.

TNF keeps up with self-developing properties and machine with special treated cleaning, provides customer highest satisfaction.

TNF's vision is providing high performance film and paper with eco-friendly material, creative ideas and continuous development for the competitive and effective material.

Thanks,

History

- 2004**
- Founded TNF Corporation
 - Develop cleaned Leading Film
 - Develop cleaned packaging Film

- 2005**
- Supply cleaned leading film to LG Chemical
 - Export cleaned packaging film to Taiwan

- 2006**
- ISO 9001 Certification
 - ISO14001 Certification
 - Venture company Certification

- 2007**
- Established Company laboratory
 - Develop Panel protection film

- 2008**
- Innovation Business Certification
 - Venture company Certification

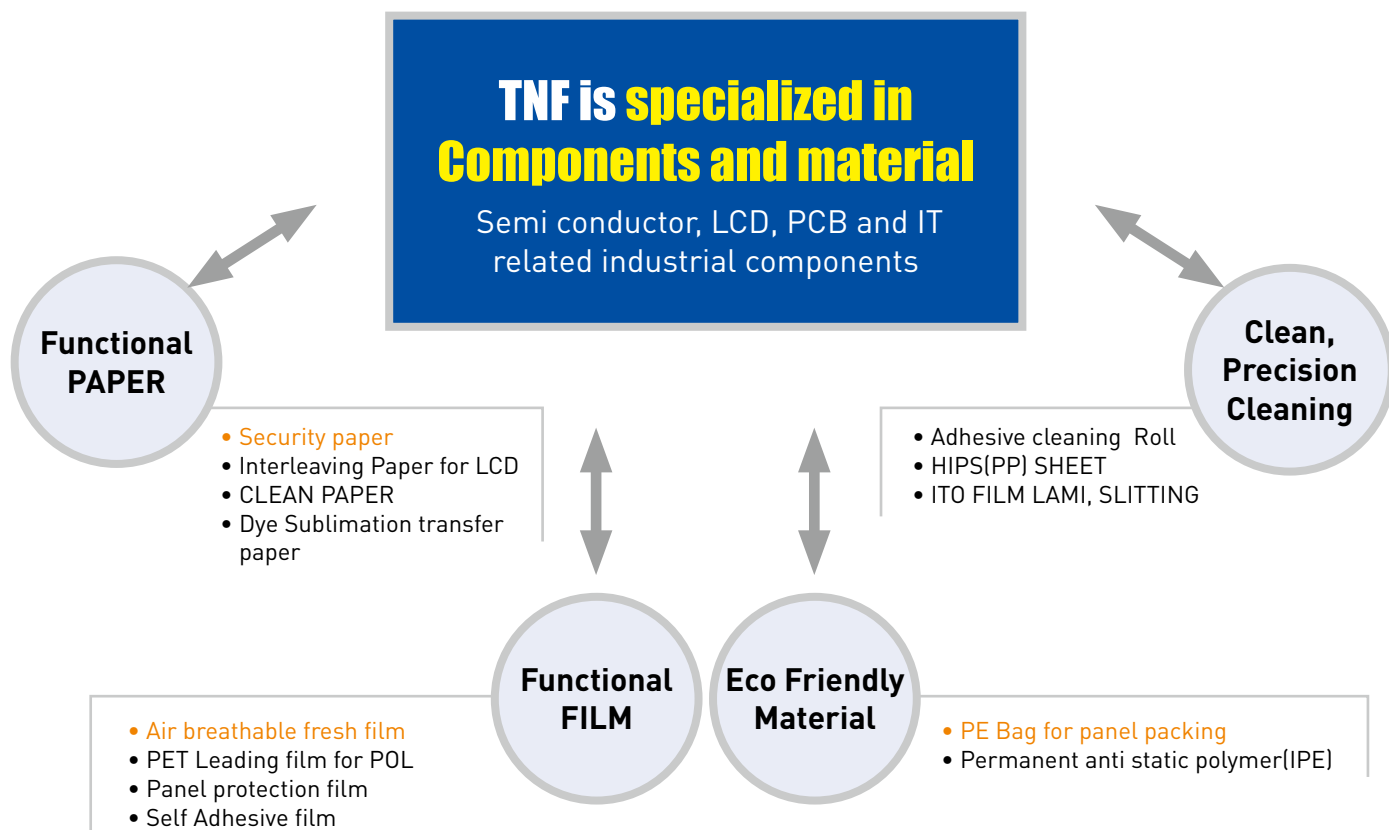
- 2012**
- Capital increase (USD 890,000)
 - Selected bright midium company in Kyunggi
 - Selected bright midium company in Kwangju-city
 - LINC family company with Yunsei, Dankook, Hanki Uni

- 2013**
- Develop Breathable medical coating EASY-FEEL
(Selected Technical innovation development)

- 2014**
- Investment from Credit guarantee bond
 - Increase Capital to USD 10,750
 - Certified Global development by Korea trading insurance firm
 - Certified Best Employment Company by Korea Small business Corporation.

- 2015**
- Investment from STIC INVESTMENT
 - Selected governmental development project "Breathable Film"

TNF
TNF Corporation



Patents

States	Patents Name	Number	registration
Patented	Adhesive film cutting machine for sheet type Cut and winding	10-1023749	2011.03.14
Patented	Sheet type adhesive film winding machine	10-1143777	2012.04.30
Patented	Particle cleaner/remover for upper-down side of film	10-1036830	2011.05.18
Patented	Dye sublimation transfer paper for ink jet printer	10-1070273	2011.09.28
Patented	Multi layer film and bag with eco friendly uni material for electric parts packing	1013879770000	2014.04.16
Patented	Security Paper	1013411640000	2013.12.06
Patented	Interleaving paper for LCD glass	10-1493684	2014.02

Leading film for POL

Sole patented in Korea

- Used in the polarizer line to lead before using TAC or PVA film
- Be able to used for coating test alignment
- Base film: PET, OPP

Feature

- Produced in cleanroom under class100
- Perfect treatment of antistatic
- Patented

Effects

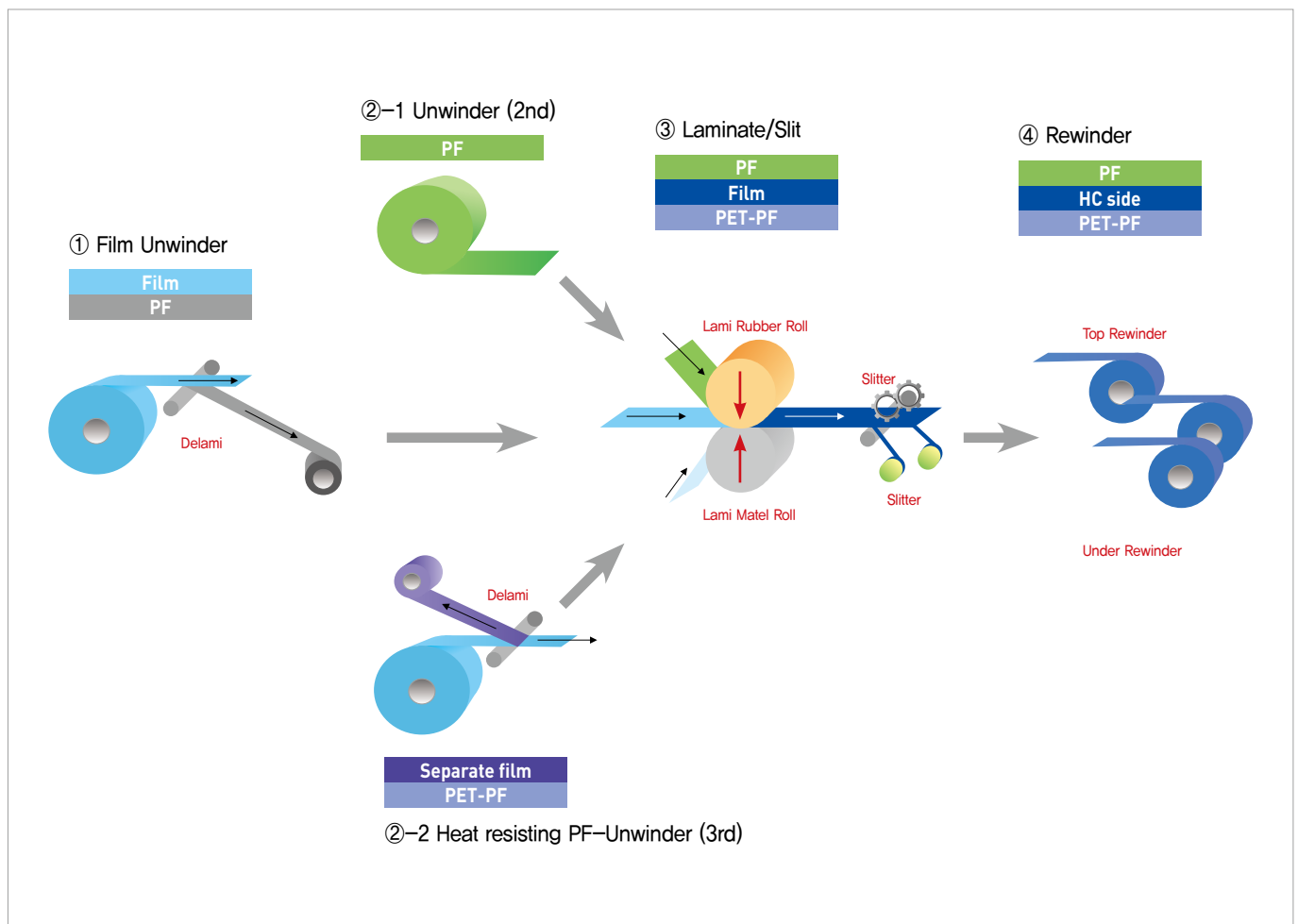
- Improve process yield
- Prevent from defect of mass production
- Cost Saving



Precision slitting

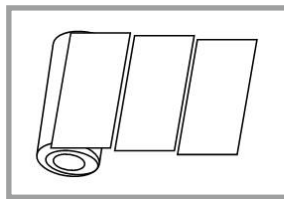
All types of optical film slitting and laminating and nulling.

<TAC film Slitting, OCA Laminating and etc>



PRE-CUT ADHESIVE CLEAN ROLLER

- Optimized adhesiveness with special coating structure controlled
- Remove particle in production line with the completely cut
- Prevent accident due to using cutter in process
- Reduce using Loss 30%
- Patented (PRE-CUT)



HIPS SHEET

Control of Polarizer from Particle, Statics and Migration

- POL Cutting with each inches -> require control of precise cutting

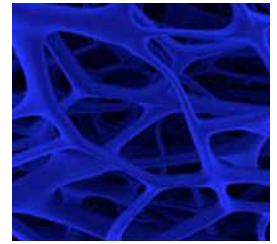
POL PS/PP Types and material

PS/PP Sheet material	Structure	Benefits / Disadvantages
Untreated ESD		<ul style="list-style-type: none"> - Surface damage on static shock - Surface statics cause particle and dust inserts - Particles when law material to be cutted - Competitive price
PE DOT Coating		<ul style="list-style-type: none"> - Migration - Lose anti-statics upon times passed. - Spec over of by static Surface resistance cause products surface damage - Competitive price
IDP (Inherent Dissipative Polymer)		<ul style="list-style-type: none"> - Lowest particles and dirt by anti static effect - Lower substance when sheet cutting Remove particle - No difference between season. - Permanent antistatic performance - Surface resistance : spec-in

Permanent anti-static polymer (IPE Resin)

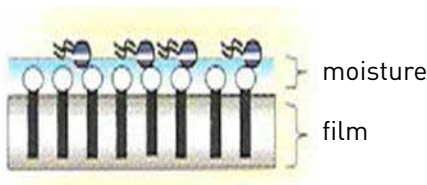
IonPhasEhas patented technologies in structures of Inherently Dissipative Polymers (IDP) and manufacturing of IDP materials. Technology is based on ions which are able to move along self-organizing ionomerpolyelectrolyte, 3D interpenetrated network (IPN) in a host polymer.

Three dimensional polymeric network acts as ion pathway



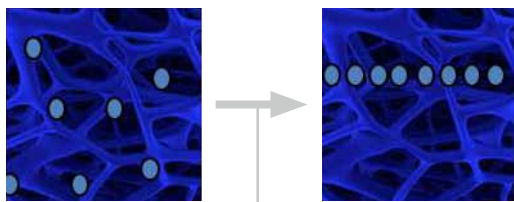
» Differences between existing-antistatic Polymer and TNF antistatic Polymer

+ Existing Polymer



- Anti-static polymer turns up for anti-static when it reacts with surrounding humidity.
- Long term left joining with humidity can cause lower performance as it gets damaged on surface.

+ TNF Polymer



reaction when contact

- It is the system that the Ions which exists in 3D net moves fast to surface autonomically and neutralized when surface static generates.
- It always keeps certain surface resistance regardless of humidity content.

» Anti static performance applied by humidity

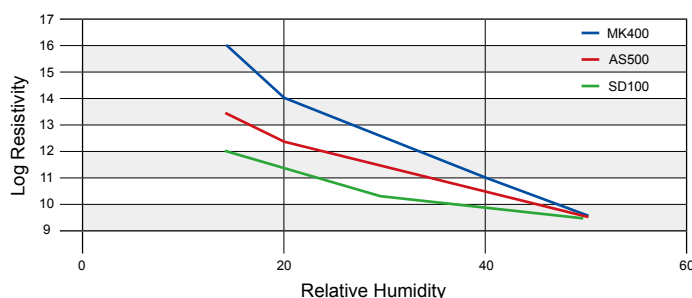
+ Table 1 : DuPont™ Entira™ Antistat grades main attributes

	MK400	SD100	Antistatics 500
Performance at 50% RH	○	○	○
Performance at 30% RH	—	○	○
Performance at 15% RH	×	○	—
Processable at above 200°C	○	×	○
Food Contact Complint	○	○	×

Yes possible No

- Competitive products
 - no effects over 200°C
- TNF IPE
 - effects whatever the temperature

+ Chart 1 : DuPont™ Entira™ Antistat performance at different humidity



TNF IPE effects anti-statics regardless of humidity

Protect film for Panel

Usage : Non-adhesive type POL damage protect film

Base Film : Multi PE RESIN

Feature

- Minimize Particle on film surface (Gel, Carbide and etc)
- Class 100 : Clean production line
- Heat resistance and solvent resistance
- Superior anti-static (Permanent anti-static Function)
- Product Protect without migration



PE BAG for Panel

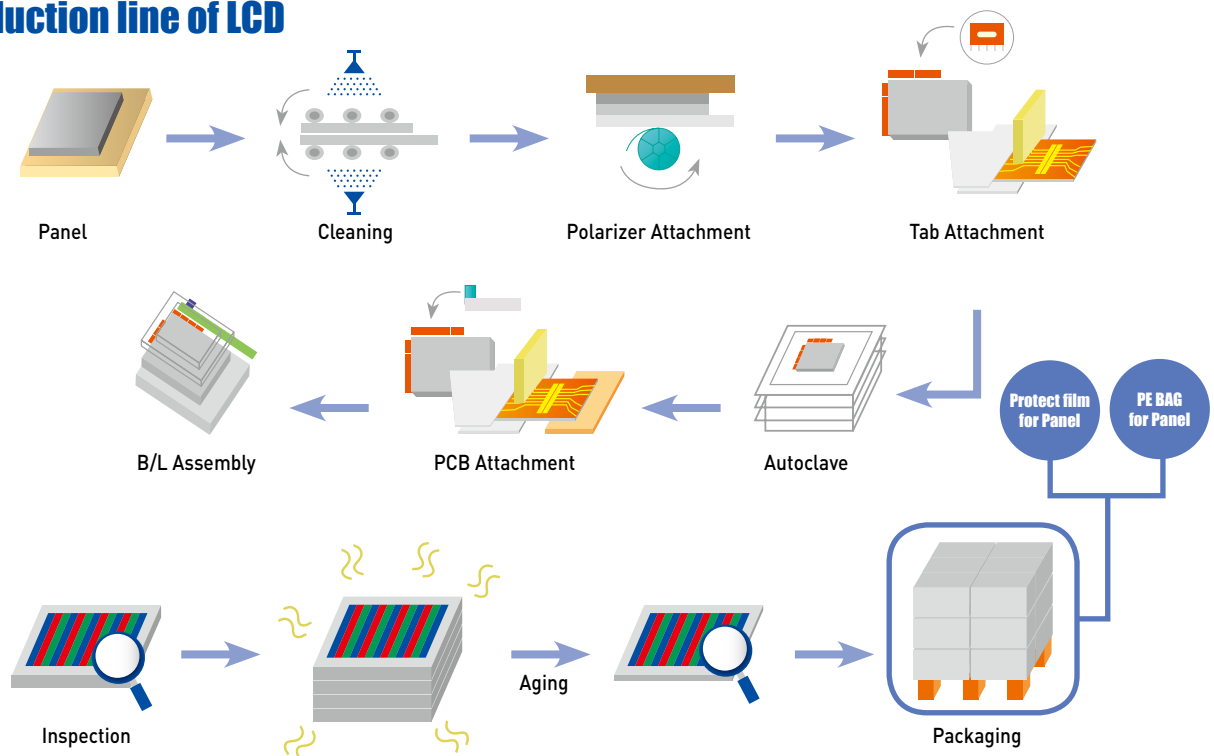
Usage : ollehpin film bag for packing LCD Panel

Base Film : Multi PE + IPE RESIN

Features

- Pol : no dirts
- Superior durability and heat resistance.
- Eco friendly material : recyclable

Production line of LCD





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