

# Printing Ink - Innovations and Capabilities

Image-To-Print HCHMC 19 April 2017

Color & Comfort



DIC Vietnam

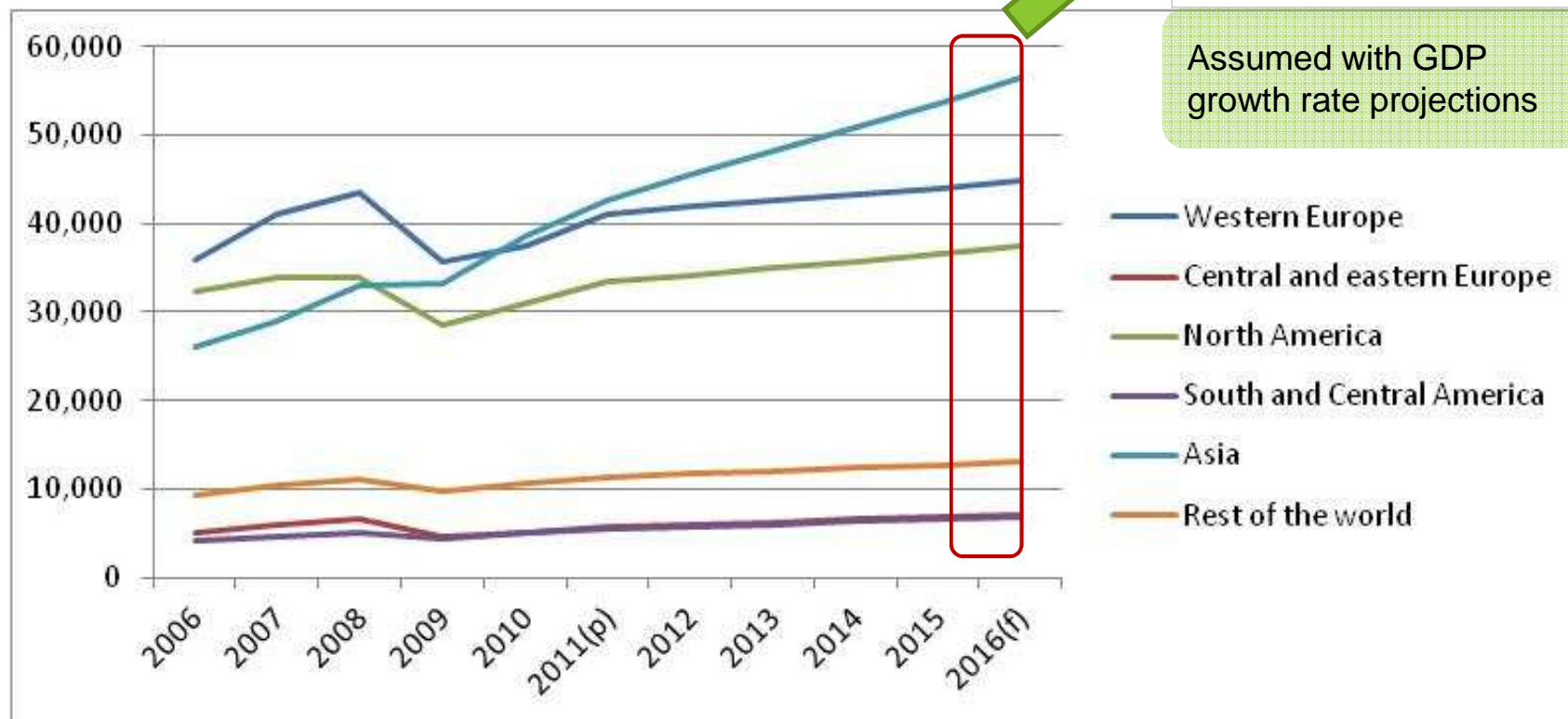


# Asian Market Forecast

## flexible packaging sales, 2006–16

Source: Pira Future of Global Flexible Packaging to 2016 (2011)

\$ million, current prices

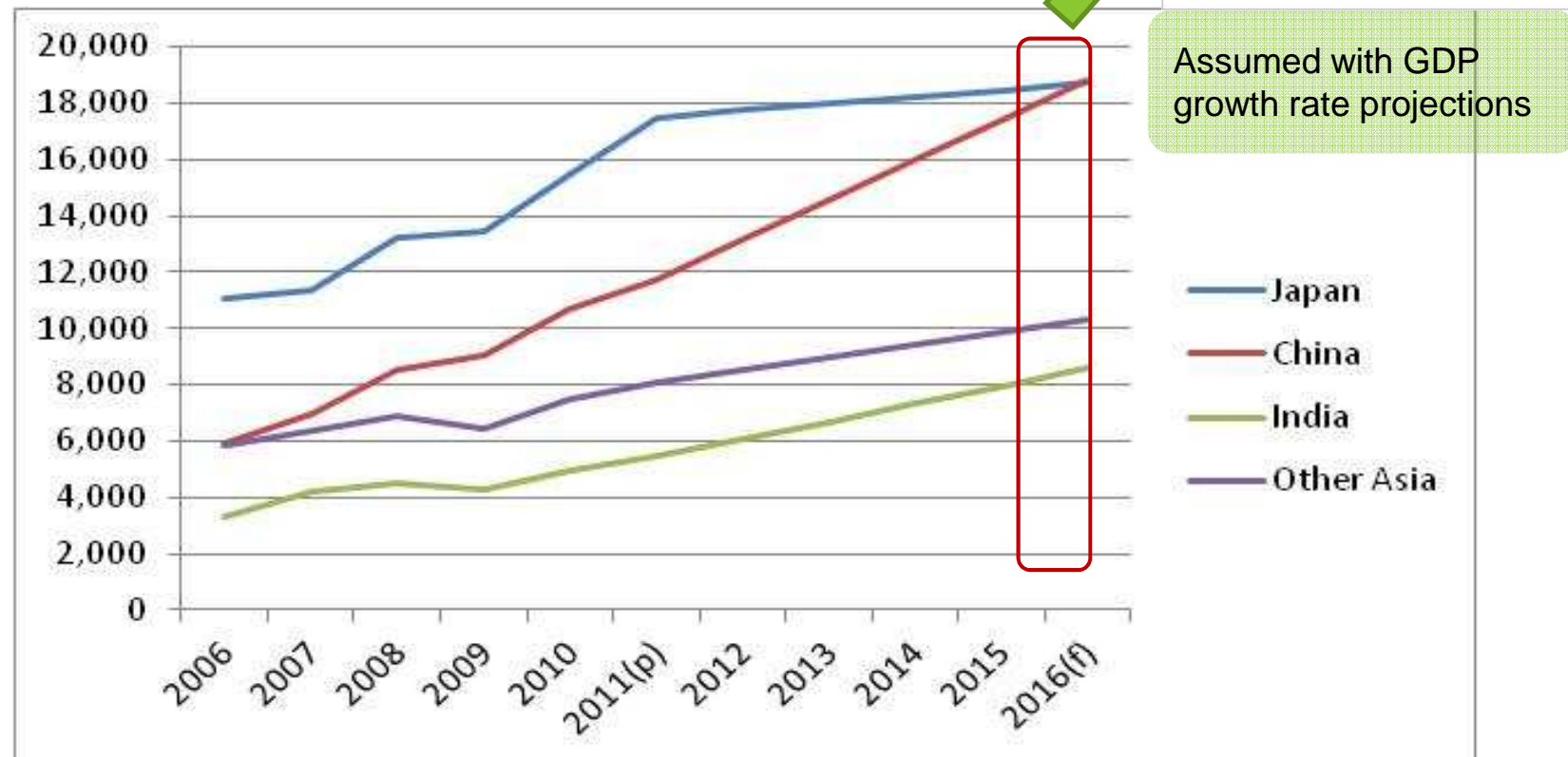


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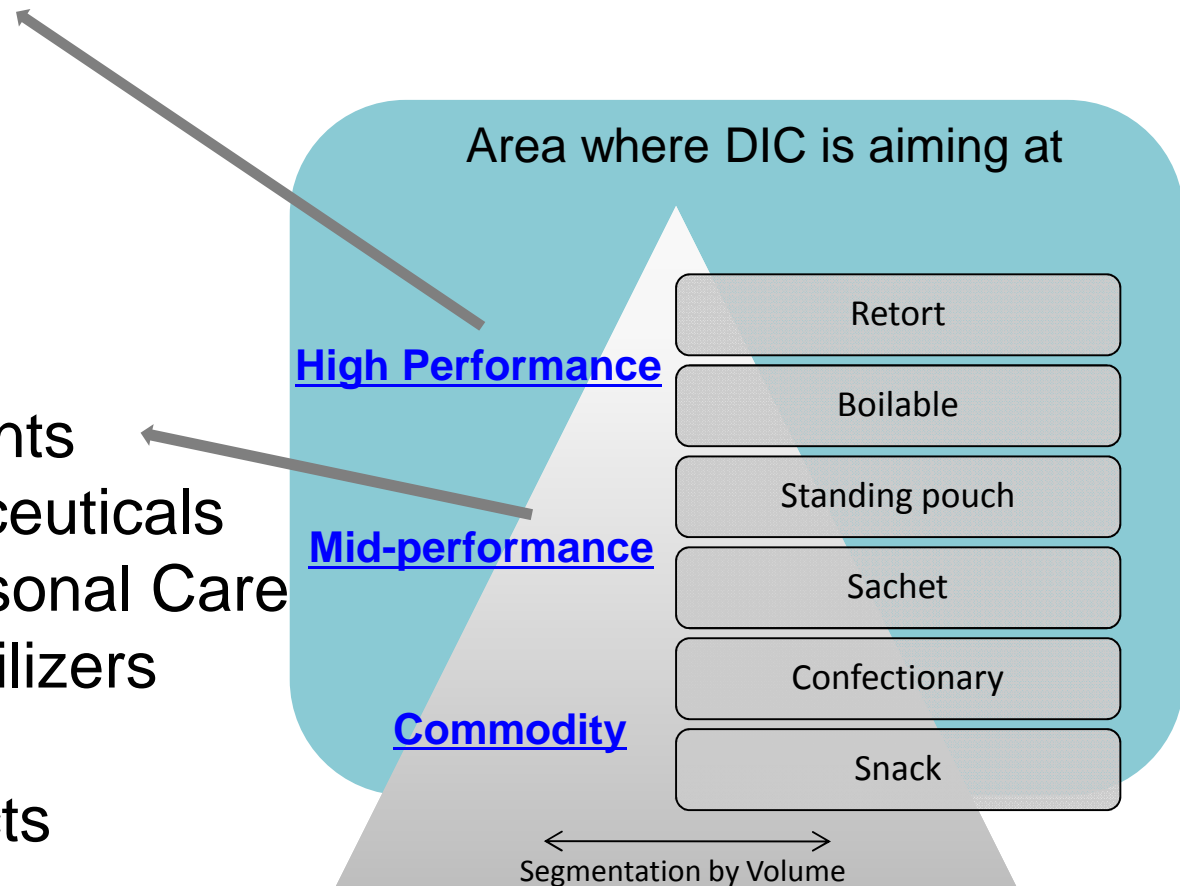
## Asian Packaging trend

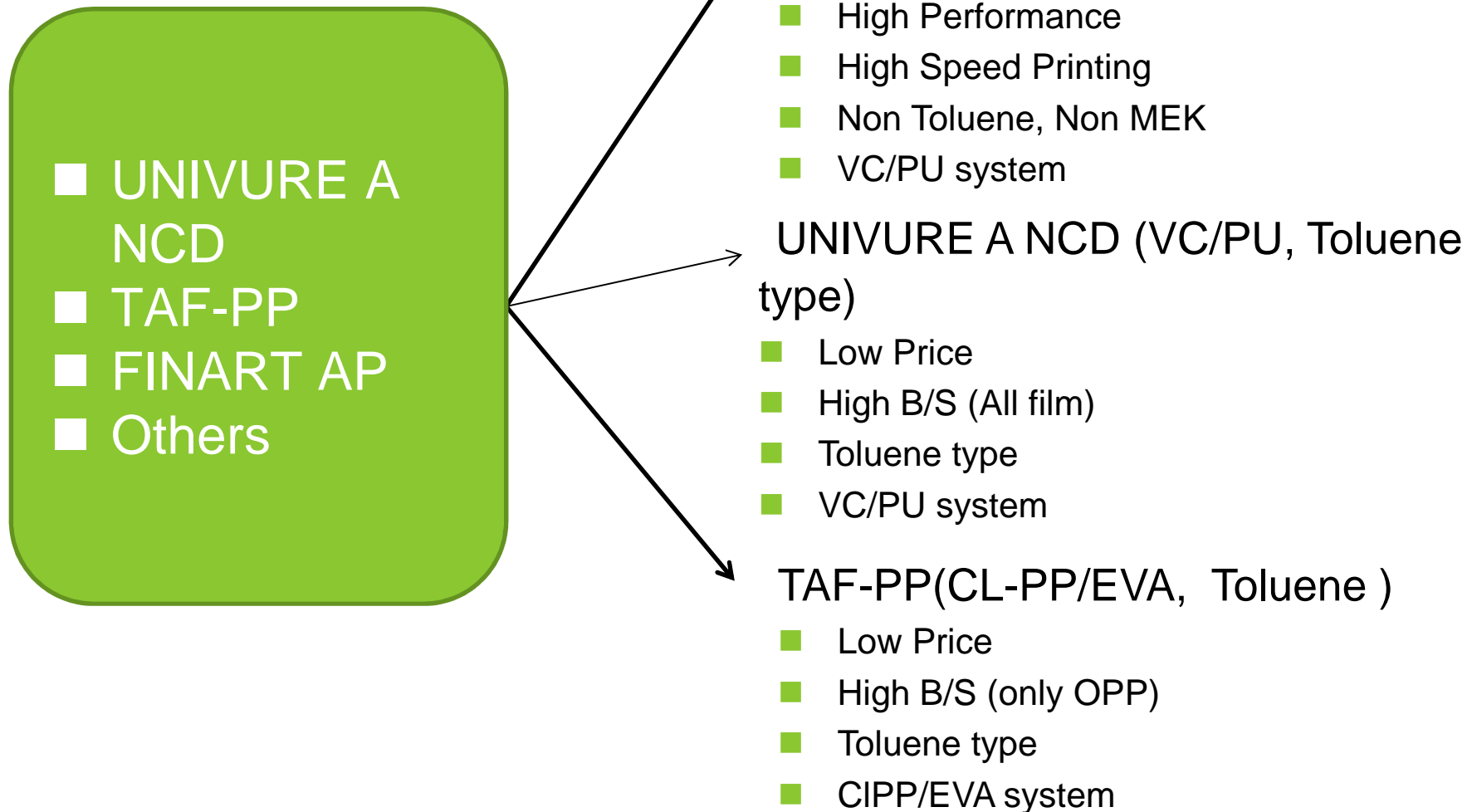
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- A growing middle class., especially in SEA, South Asia.
- The conversion of the more traditional rigid packaging into flexible forms.
- Liberalization of the economy. (ex. TPP)
- Globalization and the influx of multinational companies.
- Modern plants and equipment available to the flexible packaging industry.
- Trends towards smaller households and the accompanying rise in demand for smaller pack sizes
- Increasing health/environment awareness among consumers
- There is increasing number of colors and sophistication in packaging print design

## Asian Packaging trend

- A high degree of potential exists for almost all user segments which are expanding appreciably –
- Processed Foods
- Beverages
- Confectionary
- Bakery Products
- Spices
- Edible Oils
- Soaps and Detergents
- Drugs and Pharmaceuticals
- Cosmetics and Personal Care
- Chemicals and Fertilizers
- Office Stationary
- Engineering Products





# UNIVURE A NCD

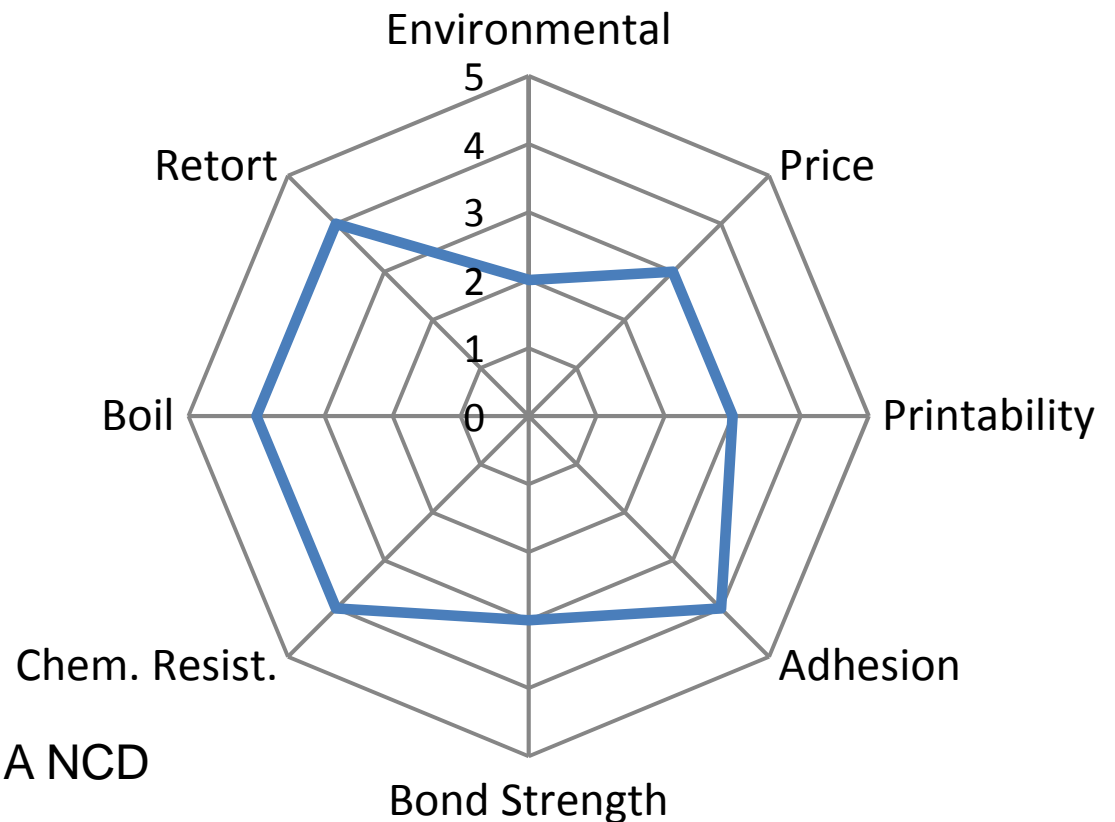
<b>Application</b>	<b>Film</b>	<b>OPP</b>	<b>PET</b>	<b>Ny</b>		
	<b>Job</b>	<b>Snack</b>	<b>Frozen</b>	<b>Refill</b>	<b>Boil</b>	<b>Retort</b>
	<b>Reducer</b>	<b>Tol</b>	<b>NT</b>	<b>NMT</b>		
	<b>Hardener</b>	<b>1 comp</b>	<b>2 comp</b>			

## <Advantage>

- STD Grade
- Multi Purpose  
(OPP, PET, Ny, Other)

## <Remark>

- Toluene Type



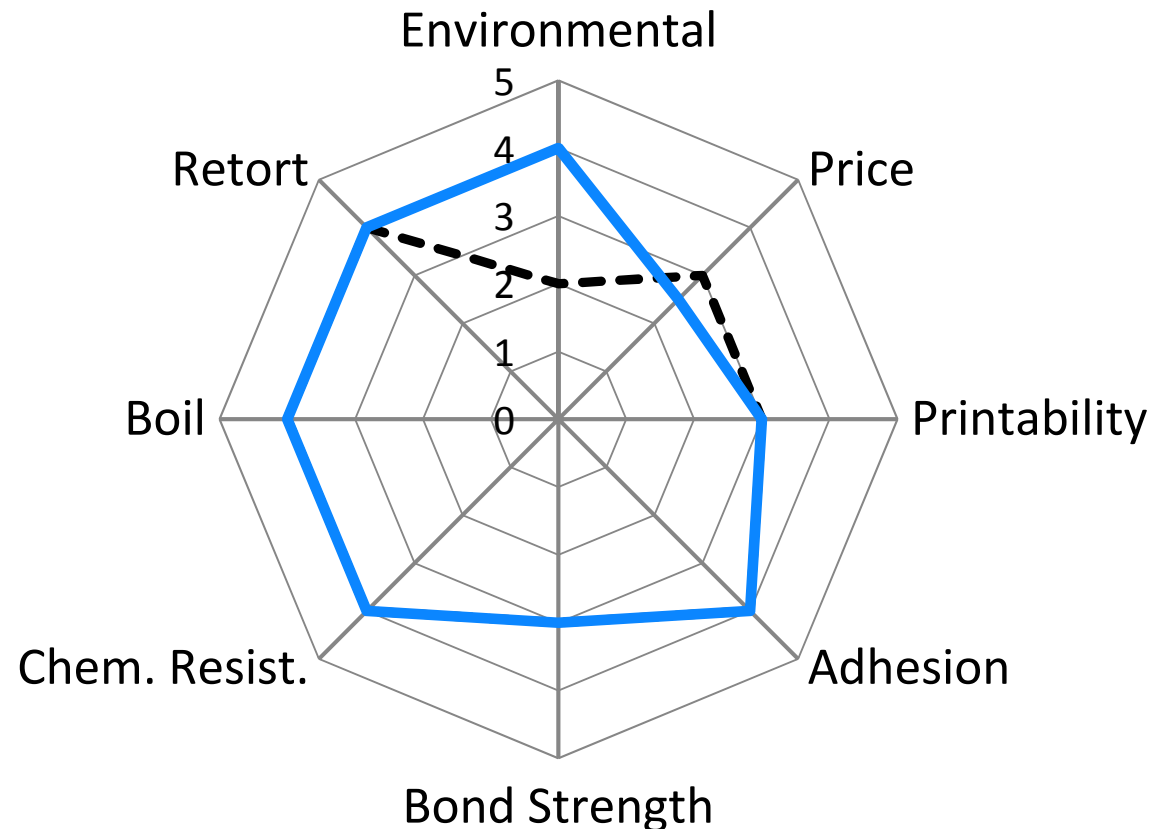
# FINART AP

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## <Advantage>

- STD Grade
- Multi Purpose (OPP, PET, Ny)

----- UNIVURE A NCD  
 ————— FINART AP





- DICDRY-series is a trademark of the adhesives for dry lamination which we have.
- We have many range of products offered from a general purpose to high performance.
- They are the designs as which safety and hygiene were considered.
- We aim at the contribution to the region by development of environmental impact reduction products.

## Dry lamination

### Solvent base

**DICDRY LX- series : Conventional type (~NV35%)**

### Solvent free base

**DICDRY 2K-SF- series : 2 component type**

**DICDRY NS- series : 2 component type**

# Application of DICDRY - solvent base



Application	General	Clear		AL-Generall		AL-Retort		Notes
	Snack, Frozen	Boil	Repack	General repack	Acid resis.	Outside	Inside	
LX-830 /KW-75=10/1.5	Excellent							Wettability
LX-405A /SI-75=1/1								Good wettability Very fast curing
LX-827 /KW-75=10/1.5	Good							Content resistance
LX-820 /KWO-42=10/1.8								Acid resistance
LX-500 /KW-75=10/1								Various purposes
LX-500 /KO-55=9/1								AL retort FDA §177.1390
LX-906 /KW-75=10/1								Outside of AL high retort example: PET/Nylon/AL/CPP
LX-520 /KO-40=5/1								Clear VM retort FDA §177.1390
LX-520 /KZ-40=5/1								AL high retort FDA §177.1390

Note \*1 Please test in advance for retort usage, especially when contents contains vinegar or the film combination is PET/Nylon/AL/CPP, and for clear VM retort pouch that consist of SiO<sub>x</sub>-VM PET and Al<sub>2</sub>O<sub>3</sub>-VM PET

## Application of DICDRY - solvent free

Product name	Type	Working Temp	General		Transparent		AL composition		Characteristic
			Snack	PET/ ALVM	Boil	Retort	Retort	General repack	
2K-SF-900A /HA-900B=2/1	Aliphatic ester	80-90°C		*2			*1		AL retort Aliphatic type
2K-SF-380A /HA-380B=2/1	Aromatic ether	70-80°C							Standard
NS-5000A /HA-500B=5/3	Aromatic esterether	40-45°C		*2					Good bond on ALVM Film, AL foil
NS-2100A /HA-105B=5/2	Aromatic esterether	40-45°C							High speed coating Good bond on AL foil
NS-2100A /HA-220B=5/4	Aromatic ether	40-45°C							Good wettability Fast curing

(Note) \*1 Acid resistance is very poor.

\*2 Appearance is inferior to solvent type adhesive

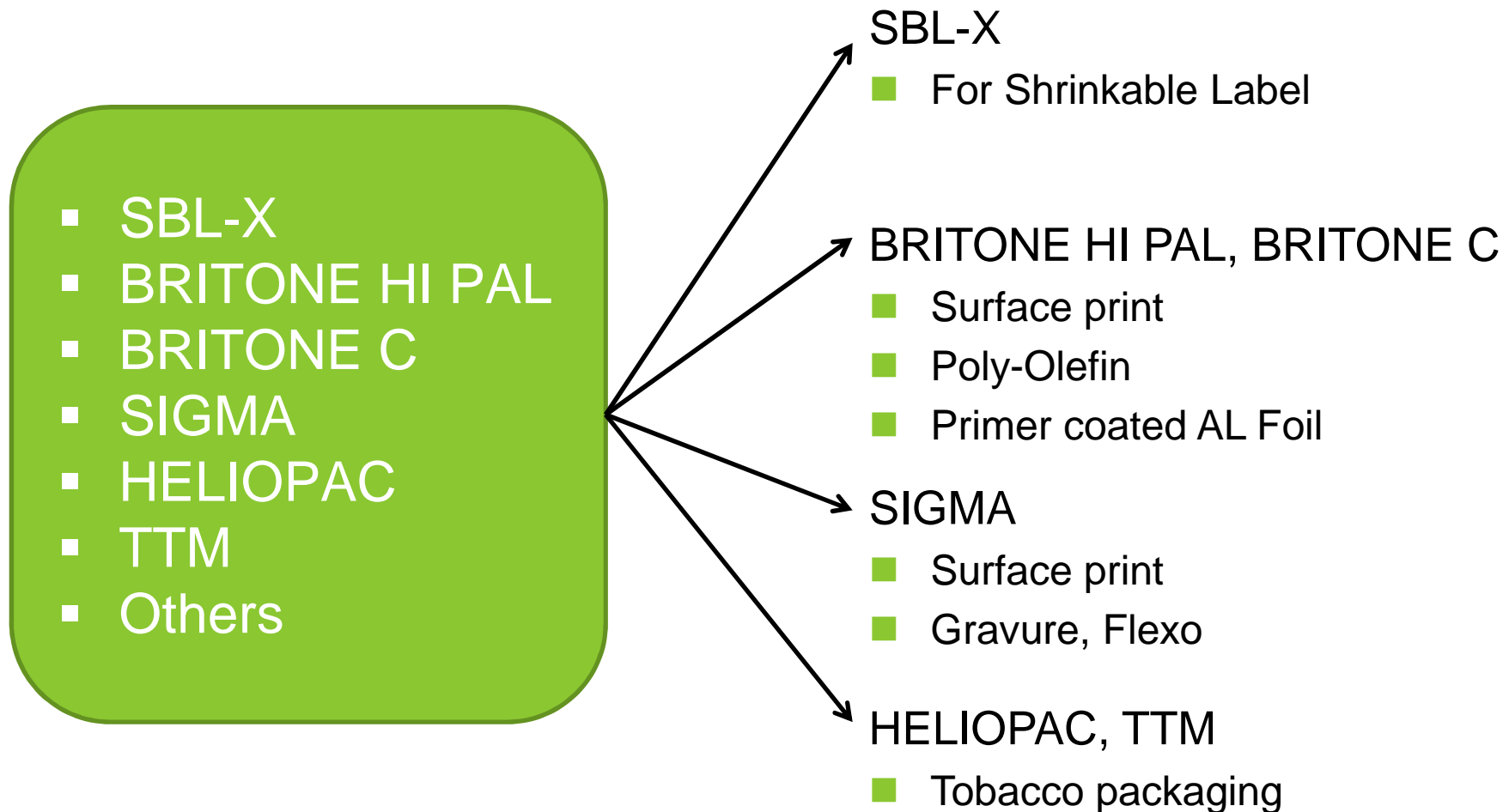


Excellent



Good

# Shrink Label ink, Surface ink



## SBL-X (Shrink label ink)

<b>Application</b>	<b>Film</b>	Shrinkable PET	Shrinkable PVC	Ny		
	<b>Job</b>	Shrink Label	Frozen	Refill	Boil	Retort
	<b>Reducer</b>	Tol	NT	NMT		
	<b>Hardener</b>	1 comp	2 comp			

### <Advantage>

- **Contents Resistance**
- **High Color shade**

### <Remark>

- **For Shrink Label**
- **Toluene Type**

## BRITONE HI PAL(Surface ink)

<b>Application</b>	<b>Film</b>	<b>Treated CPP</b>	<b>LDPE</b>	<b>OPP</b>		
	<b>Job</b>	<b>Snack</b>	<b>Sanitary Goods</b>	<b>OPP Label</b>	<b>Boil</b>	<b>Retort</b>
	<b>Reducer</b>	<b>Tol</b>	<b>NT</b>	<b>NMT</b>		
	<b>Hardener</b>	<b>1 comp</b>	<b>2 comp</b>			

### <Advantage>

- **High Ink Transfer**
- Good adhesion

### <Remark>

- **For Poly-Olefin Film**

# Solvent Based Flexo Ink – Multipurpose

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- **Multi-functionality / simplified range**
  - **Ease of use**
  - **Fit for Purpose**
  - **Low applied cost**
  - **Food packaging compliance**
  - **High print speed**
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- ✓ **GPL inks are Polyurethane modified nitrocellulose and are designed to provide printers with a general purpose surface printing & reverse printing lamination system.**
  - ✓ **A wide range of high strength line and tone colours available off an ink dispenser including a high strength Flexo process set.**
  - ✓ **Exhibit excellent printability and are suitable for a wide range of film types.**
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# Ink systems – GPL

**SUPERBASE  
CONCENTRATES**  
Comprehensive range of  
Standard and slow dry  
Pigmented bases to meet  
all application  
requirements

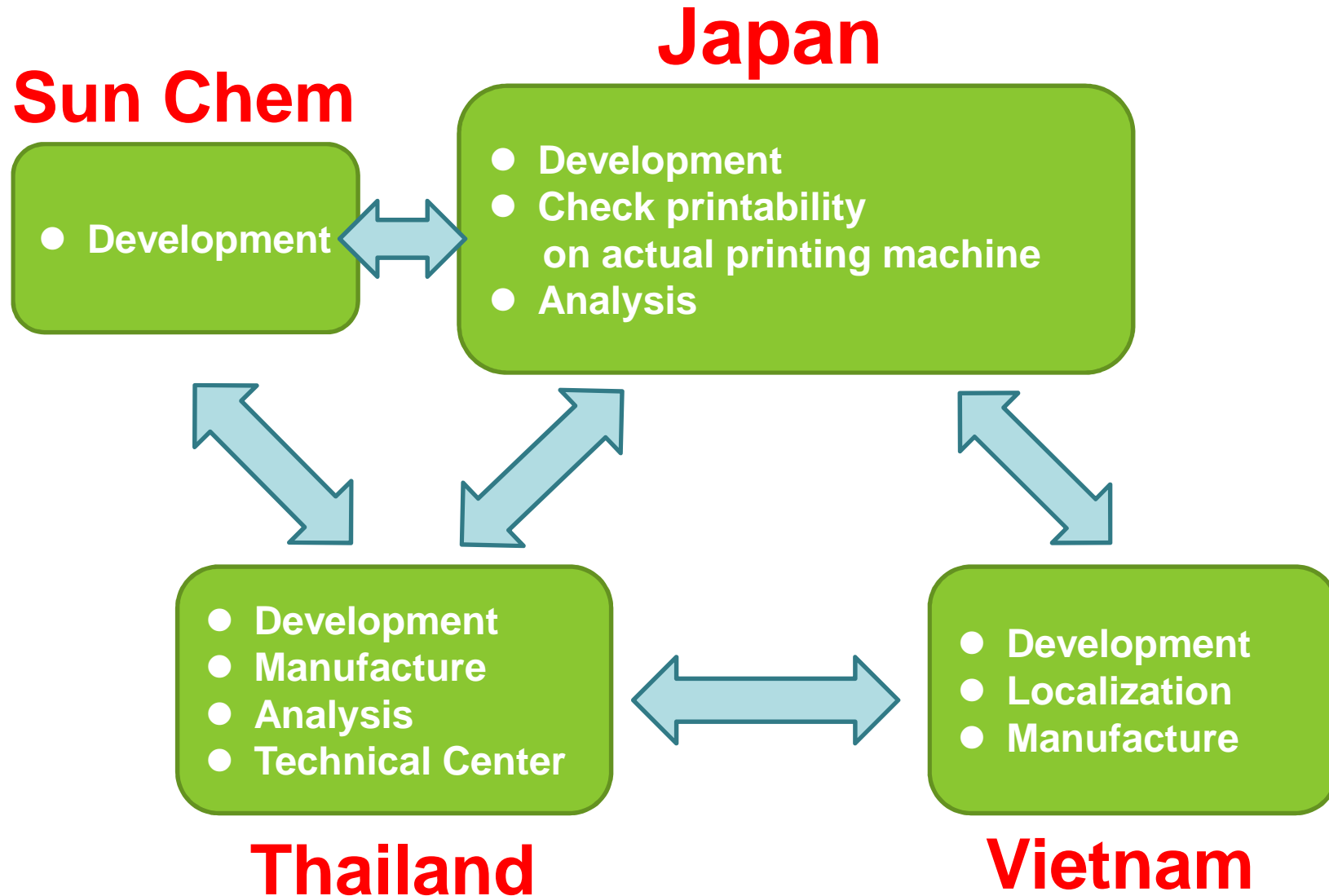
RESISTANT
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PR- RESISTANT
R – FANAL*
R - RESISTANT
V– FANAL*-
V - RESISTANT
B
G
BL
W
W
SUPERBASE CLEAR

Modular ink system suitable for on site  
manual or automatic Dispensing



Features	Benefits
Suitable for a wide range of substrates i.e. BOPP, OPA, PET	Simplification and reduction in number of inks used.
Line and process colours available off an ink dispenser	Only dispense what is required, including process inks. Reduction in waste (pails) & press returns
Low retained solvents	Suitable for all types of laminating adhesives
Good heat resistance	Suitable for surface print when an OPV is applied on top
low odour	Suitable for food packaging and suitable for cold Seal applications when using CSRL
Good lamination properties	Suitable for all types of laminating adhesives
Excellent printability	Meet stringent graphic demand targets

\* Note Fanal pigments are not suitable for food packaging applications  
and have poor resistance properties





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