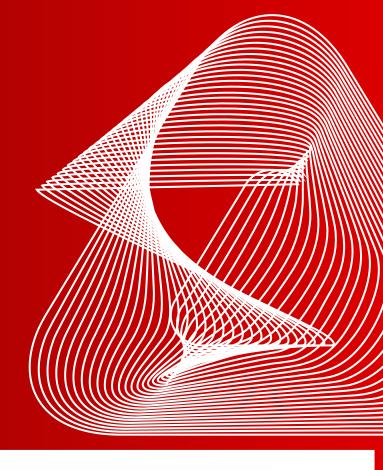


Webinar by Avery Dennison - ASEAN

Sustain, Grow, Win with NextGen

2022



Welcome to the Webinar

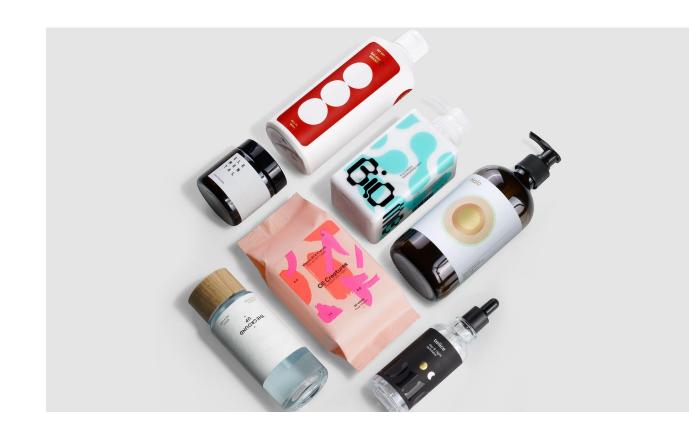
Starts at 10:30 AM





Agenda

- NextGen
- Creating Value
 - Adhesives
- NextGen Portfolio
 - Paper
 - Variable Information (VI)
 - Film
 - Specialty
 - Durables



Speakers for Today



Keith Tan Product Manager, Paper & VI, ASEAN

6+ years experience in process engineering with 4+ years of product management in manufacturing industry.

Webinar Part 1



Yvonne Chung Product Manager, Film, ASEAN

14+ years experience in packaging film material industry and technical development with 1+ years of product management self-adhesive label manufacturing industry.

Webinar Part 2

What is NextGen?



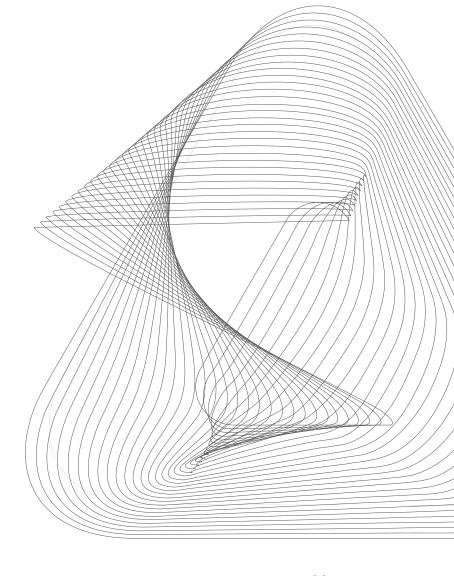








Creating Value - Adhesives





Adhesive Performance Parameters



Adhesion

- Initial tack
- Ultimate adhesion
- Shear resistance

Temperature

- Application Temp.
- Service Temp.





Applications Specific

- Permanent
- Removable
- UV/ Chem Resist.
- Low Mandrel etc

Hotmelt Adhesive

Available in all paper and specific filmic products



Powerful initial tack and strong long term adhesion even on difficult substrates such as recycled cardboard and low surface energy plastics



Specifically designed to have low / no bleeding and ooze in tropical asean conditions when compared to other hotmelt adhesives in the market

Excellent in high-speed converting and dispensing properties

Compliant & Sustainable



Meets the evolving End User expectations, our hotmelt adhesive comes with 30% renewable content.

Enhanced by certification FDA regulations (section 175.105) for indirect food contact, and German recommendations XIV as published by BfR with dry and moist, non fatty foodstuffs.

S692N Adhesive

Cleaner significantly less adhesive ooze

 Reducing downtime associated with contamination on press and on dispensing equipment.

Clearer exceptional 'no label' look

Outstanding clarity and wet out performance for on pack appearance

Versatile one platform - trusted for many applications

 All substrate adhesion - with short term repositionability on PET & HDPE containers and indirect food approval to assure package integrity.

Sustainable enables HDPE monomaterial

 Recognized to comply with APR Critical Guidance Protocol for HDPE recycling. It enables recycling of clear and white films on HDPE plastics without contaminating the quality of recycled material.

S692N - Versatile Adhesive You Can "TRUST"

The benefits of the "Most Widely Used

Adhesive" for general purpose application in the

PS Industry extend from better sustainability all
the way through to higher levels of productivity
and exceptional label clarity.



Hotmelt Adhesive vs Emulsion

High Low **Initial Tack** Excellent Poor Long Term Adhesion High Low Surface Energy Substrate Wide Narrow Service Temp. Range Excellent Poor Solvent Resistance Poor Excellent **UV** Stability Excellent Poor **Converting Speed** Clear Hazy Clarity

Hotmelt

Emulsion



Paper & Variable Information (VI) NextGen Portfolio



Gloss Plus FSC



Targeted Performance

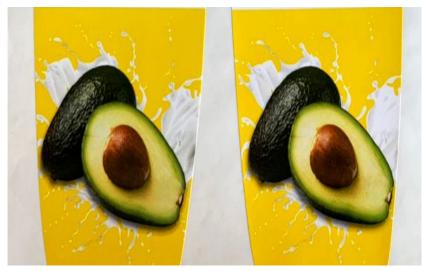
- Guaranteed supply to fulfill all your product demand compared to diminishing capacity in High Gloss supplies globally
- A cost effective super gloss paper offering good value proposition with an attractive cost benefit
- Varnish post print provides at par glossiness appearance against other high gloss papers available in the market
- Uncompromised converting performance, comparable printability



Sustainable Advantages

- 8% thinner in laminate construction than other labelling solutions available in the market
- Paired with BG33 a lighter labeling solution, reduces environmental footprint and giving more number of labels per roll
- Certified with Forest Stewardship Council (FSC), enhancing the value of sourcing responsibly





Parameters	Gloss Plus FSC	High Gloss Paper
Basis Weight	80 gsm	80 gsm
Printability, Converting Performance	****	****
Stiffness	***	***
Gloss (Printed & Varnished)	****	****

MC Elite FSC



Targeted Performance

- A cost effective product offering good value proposition with an attractive cost benefit
- Featured with desired semi gloss appearance that converts well on moderate speed presses with optimal setting, and comes with good print performance on conventional presses on single or multi-color print.



- 10% thinner in laminate construction than other labelling solutions available in the market
- Paired with BG33 a lighter labeling solution, reduces environmental footprint and giving more number of labels per roll
- Certified with Forest Stewardship Council (FSC), enhancing the value of sourcing responsibly
- Reduce matrix wastage with lower basis weight construction

Parameters	MC Elite FSC	Others	
Basis Weight	70 gsm	80 gsm	
Converting Performance	****	****	
Stiffness	**	***	
Printability	****	****	



Direct Thermal 60 Top Coat



Targeted Performance

- A top-coated facestock, designed with essential resistance for barcode labeling applications in dry environment.
- Excellent adhesion performance on tough and challenging substrates like recycled carton or HDPE substrates



Cleaner Converting

 An adhesive developed for tropical condition, providing low to no ooze during converting process when compared to other hotmelt adhesives available in the market



Sustainability Through Reduced Material

- 10% thinner in laminate construction than other labelling solutions available in the market
- Paired with BG33 a lighter labeling solution, reduces environmental footprint and giving more number of labels per roll
- Certified with Forest Stewardship Council (FSC), enhancing the value of sourcing responsibly

First of its kind, thinnest DT Label available in the market, providing price-to-value solution to the market

Target Market

E-commerce, dry environmental resistance condition

		DT60 TC	Others
	Basis Weight	60gsm	70 - 75 gsm
Physical Properties	Top Coat	Yes	Yes
	Converting Performance	***	***
DT	Normal Barcode	****	***
Printing	Ladder Barcode	***	**

Direct Thermal 60 Non Top Coat



Targeted Performance

- A non top-coated facestock, designed for barcode labeling applications in dry environment.
- Excellent adhesion performance on tough and challenging substrates like recycled carton or HDPE substrates



Cleaner Converting

 An adhesive developed for tropical condition, providing low to no ooze during converting process when compared to other hotmelt adhesives available in the market



Sustainability Through Reduced Material

- 10% thinner in laminate construction than other labelling solutions available in the market
- Paired with BG33 a lighter labeling solution, reduces environmental footprint and giving more number of labels per roll
- Certified with Forest Stewardship Council (FSC), enhancing the value of sourcing responsibly

Target Market

- Non-food item labeling in retail stores (e.g. magazines, furniture)
- Process Tracking/ Warehousing (e.g. Carton Labels)

		DT60 NTC	rDT300LD
	Basis Weight	60gsm	70 gsm
Physical Properties	Top Coat	No	No
	Converting Performance	***	***
DT Deinting	Normal Barcode	***	***
DT Printing	Ladder Barcode	***	**

TransTherm Elite FSC



Targeted Performance

- NextGen TT paper with good barcode printability designed with optimum performance for TT printing applications
- Paired with S2010N and BG33 for price-to-value option



Cleaner Converting

 An adhesive developed for tropical condition, providing low to no ooze during converting process when compared to other hotmelt adhesives available in the market



Sustainability Through Reduced Material

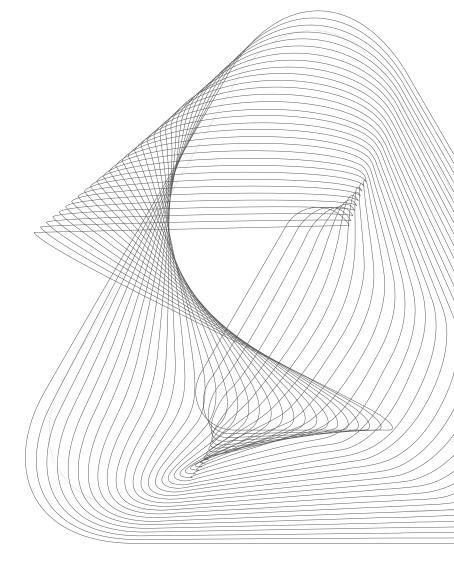
- 62gsm TT paper with thinner caliper for better sustainability advantage, reducing environmental footprint
- Greater efficiency with more labels per roll (~10% increase in roll length with same roll diameter vs Transtherm 2C).
- Certified with Forest Stewardship Council (FSC), enhancing the value of sourcing responsibly

Target Market

- Logistic (e.g. eCommerce)
- Requirement of thermal transfer label for barcode applications, especially export business demanding good image durability.

Testing and Evaluation	Parameters	TransTherm Elite FSC	Transtherm 2C FSC
Physical	Basis Weight	62 gsm	81 gsm
Properties	Thickness	66 µm	89 µm
D	Print Definition	***	****
Printability	Print Durability	***	****

Film NextGen Portfolio





ThinThinTM - FLEX +

Convertibility

Same printability and die-cut performance as PE film.

Shelf Appeal

High clarity for no-label look, labels maintains premium appeal

Sustainability

Thinner caliper of 55 um, less material consumption & waste generation than legacy of PE.

Flex+ is 30% thinner than PE

Value Chain Efficiency

- ✓ More labels per roll.
- ✓ Less changeover and downtime on press.

	PE85 NTC	PE75 NTC	Flex+	
Thickness (um)	82	75	55	Thinner caliper for
Application	GPP, HPC	GPP, HPC	GPP, HPC	sustainability
Clarity	***	***	***	Better clarity
Printability	***	***	***	,
Die-cutting	****	****	****	At par converting
Stiffness	***	***	***	and application
Label dispensing	***	***	****	for HDPE containers
HDPE Conform	****	****	****	
Tube Conform	****	****	***	

New to the world semi conformable solution to provide a balance of rigidity and conformability

ThinThinTM - PP Film





Shelf Appeal

A thinner film label, designed for rigid application that blend perfectly with the substrate providing excellent aesthetic appeal



Sustainable Advantage

Greater sustainability advantage with less material consumption, using only what's necessary



Best in class in Printing & Converting

A proprietary top-coating, designed to provide incomparable printing and die-cutting performance with UV Flexo printing and thermal transfer printing. Paired with the trusted S692N or CleanFlake adhesive with no or lowest ooze in the industry



Application Efficiency

Tested through the most stringent processes, the film is designed to provide same application performance versus standard PP film for small to mid sized label; providing brand owners seamless transition from legacy product and giving more labels per roll for enhanced efficiency

Target Segments

• General Purpose, HPC, F&B

Availability

- Available in White 50, Clear 40 and Silver 40
- Service Program:
 - o EXACT (1 roll x 1000 / 2000LM)
 - extension of running length can be customised as per the need of the customer

Technical Comparison

PP Clear

ltem	Thickness um	Top-coat	Printability	Die-cutting	Stiffness	Label application - Large Size (> 7cm x 16cm)	Label application - Small Size (< 7cm x 16cm)
PPNg Top Trans	50	Yes	****	****	****	****	****
PP40 Top Clear	40	Yes	****	****	***	***	****
PP50 NTC Clear *Overlam is recommend	50 led to protect pri	No* nt in case of NT	★★★ 'C film	****	****	****	****

PP Silver

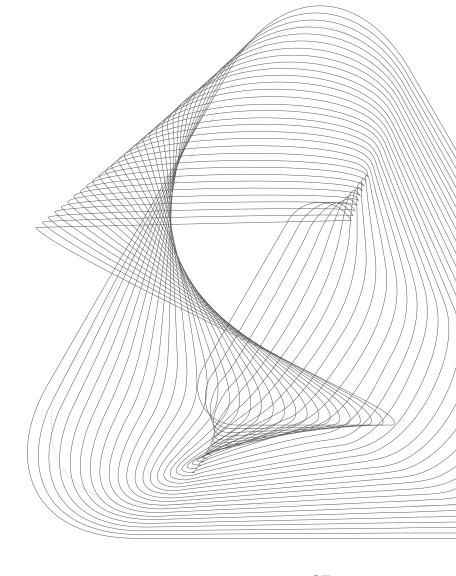
ltem	Thickness um	Top-coat	Printability	Die-cutting	Stiffness	Label application - Large Size (> 7cm x 16cm)	Label application - Small Size (< 7cm x 16cm)	Gloss
PP50 Silver TC	50	Yes	****	****	****	****	****	****
PP TC Silver Elite	47	Yes	****	****	****	****	****	***
PP40 Top Silver	40	Yes	****	****	***	***	****	**** * ₂₅

Technical Comparison (top coated films)

PP White

ltem	Thickness um	GSM	Top-coat	Printability	Die-cutting	Stiffness	Label application - Large Size (> 7cm x 16cm)	Label application - Small Size (< 7cm x 16cm)
rPP Top White	65	42	Yes	****	****	****	****	****
PPNg Top Pearlized White	60	45	Yes	****	****	****	****	****
PP60 Top White	60	44	Yes	****	****	****	****	****
PP50 Top White	50	50	Yes	****	****	****	****	****
PP50 Top Pearlized White	50	36	Yes	****	****	***	***	****

Specialty NextGen Portfolio





Chilled & Frozen Food - NextGen Portfolio

Features

- Good print quality for attractive shelf appeal
- Available with emulsion and hotmelt adhesives to suit substrates of various surface energy.
- Application area in **frozen & chilled ready meals** in supermarket or home delivery services.
- Suitable for less demanding application that does not need repositioning.



Item Code	Description	Thickness um	Top- coat	Adhesive	Printability	Die-cutting	Cold Temp Performance	Water Resistance	Microwave compatible	Repositioning on LDPE & PP (20min)
SY7022	Synthetic Paper II/ C7501/BG40Wh Imp FSC	78	Yes	Emulsion	****	****	****	****	Yes	****
SY7074M	Synthetic Paper/ AT20/BG40Wh Imp FSC	75	Yes	Emulsion	***	****	****	***	Yes	**
BW0278	Synthetic Paper TR75/ C2075/BG40Wh Imp FSC	75	Yes	Hotmelt	****	****	****	****	Yes	**

Wet Wipes Reclosure

NEW!

Avery Dennison UV Acrylic Adhesive Technology

UR106

NextGen reclosure adhesive for wet wipes application. More sustainable and fully recyclable adhesive platform for wet wipes

- Same performance as current low-mid solvent adhesive
- White and clear polypropylene facestocks

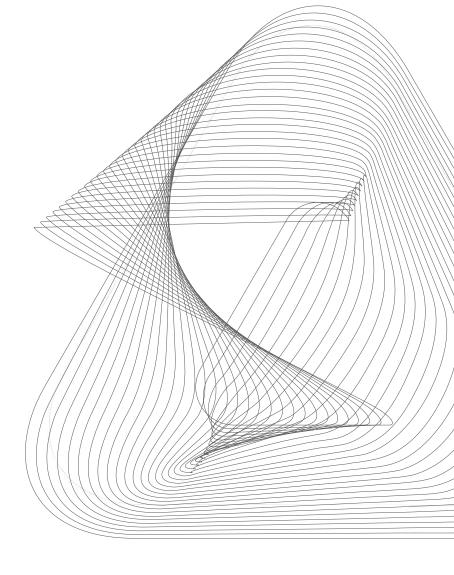
Value Generating Benefit of UVWM

- **Solvent-free** acrylic No toxic solvents involved.
- Excellent clarity for transparent films.
- Low VOC & odor.
- **Higher eco-efficiency** than solvent-based technology.



^{**}Launching in Q1'23. Sample roll available for testing.

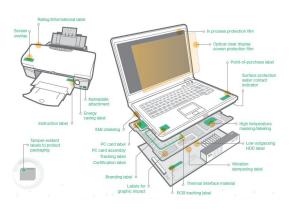
Durables NextGen Portfolio





Durables NextGen Portfolio





The Fighter Grade

- A cost-competitive range of Polyester facestock with variety of thickness/colour to choose from
- Excellent top coat layer designed to be printed by most of the conventional presses and ribbon printing
- Comes with different type of adhesive (Hotmelt, Emulsion, Solvent) to suit various surface energy substrates ranging from low to high SE.
- Application area in electronics, white goods, promotional and Work-In-Progress (WIP) labels, asset tagging, and any durables application which requires small degree of heat and chemical resistance
- Suitable for entry level application which does not require UL certification

Product Information

Code	Description	Location						
White PET								
MZ0420	25micron White PET TC5/S8020/BG50#Wh ni	CN						
MZS1324A	50micron White PETTC5/S369/BG50Wh ni	SG, MY						
MZ0212	2M WH PETC TC/S369/BG50Wh	TH, SG, MY, VN						
MZ0206	2M White PET TC3/S2060/BG40Wh Imp	SG						
MZ0417	50micron White PETTC9/S8020/BG50# WH ni	CN						
Chrome/Silver I	PET							
NEW MZ0216	2M Bright Silver PET TC/S8020/BG40Wh Imp	TH						
MZS1247	25micron Matte Chrome PET TC5/S8020/ BG50#Wh ni	CN						
MZS1327	50micron Matte Chrome PET/S369/BG50Wh ni	SG, MY						
MZ0207	2M Matte Chrome PET TC/S2060/BG40Wh Imp	SG						
MZ3001	50micron Bright Silver PETTC/S8020/BG50Wh ni	CN						
MZ0208	2M Bright Silver PETTC/S2060/BG40Wh Imp	sg						
Clear PET								
MZ0497	25micron Clear PET TC5/S8020/BG50Wh ni	CN						
MZ0425	50micron Clear PET TC5/S8020/BG50Wh ni	CN						

Link to Product Overview