Avery Dennison Label and Packaging Materials

ASEAN January 2024

Food & Beverage Solutions

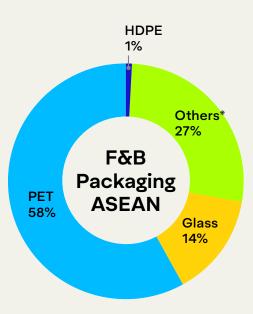




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Prompted by new and evolving trends in the food and beverage space, brands are increasingly focused on transforming their products to stand out among others. However, in order to get ahead, we have to look beyond the looks. Recent years have seen accelerated shifts in consumer behaviour. Most noticeably is the escalating awareness of the environment. Consumers are expecting more from brands on the sustainability of their packaging, as they become increasingly conscious about the impact of their every choice. There also exists a stronger desire to connect with a product at a deeper level to learn about its origin and journey, and what happens after their end-of-life.

PET and glass — the most preferred materials in F&B packaging



* Other materials Include squeezable plastic tubes, thin-walled plastic, and bottles and jars made of other plastic materials

Source: Euromonitor

PET and glass containers are strongly preferred over other packaging materials not only because they provide the protection needed to safely secure content, but also because of their compatibility with label solutions that elevate product aesthetics, branding, and packaging versatility.

Aesthetics

Transparency of the containers helps display the color, texture, and freshness of the content, and is uncompromised with a clear adhesive and label.

Branding

Clarity and high surface energy are suitable for displaying unique decorations and holding various labels, helping brands differentiate their products.

Versatility

A wide range of shapes and sizes are available for specific packaging needs and different product categories, and can be paired with a label that complements each.

Glass — reducing emissions through reusability

With waste management and reduction efforts becoming prime objectives of organisations, there is an increasing need for the sustainable use of glass containers as well as label solutions that enhance their reuse and recyclability, which in tandem, can help conserve resources and minimise carbon emissions from energy-intensive glass manufacturing.

PET — the future of circular packaging

Not only is PET convenient to manufacture, store and use, but it comes with greater prospects to be recycled into raw materials that can be reused for food-grade packaging. With label solutions that enhance PET recyclability backed by a reliable collection and recycling infrastructure, continuous PET bottle-to-bottle recycling is achievable, closing the loop on plastics. Labels play an important role in the success and circularity of PET and glass packaging. Avery Dennison provides label solutions that improve their operational efficiency, shelf appeal, and sustainability.



Operational Efficiency

Choosing a product that enhances productivity while meeting the budget is always a priority for converters and brands. We offer re-engineered solutions with a comparable total-applied cost to other decoration technologies but perform as well as conventional PS labels while reducing raw material use, CO₂ emissions, and waste generation.

Shelf Appeal

Aesthetics always plays an essential role in the consumer's decision-making. It's the first thing they see on the shelf. Our products are designed for efficiency but don't compromise on quality or appearance so your brand still stands out from the rest.

Sustainability & Packaging Circularity

Without question, sustainability is a top growth driver for many brands. Can the packaging be recycled or enhance recyclability? Does it contain recycled or responsibly sourced materials? We innovate to meet these stringent sustainability criteria with transparency in our practices and credible tools that help quantify the outcomes of switching to our sustainable material.





AD NextGen Food and Beverages

Tackle some of the toughest packaging challenges in the F&B industry with Avery Dennison's next generation portfolio — innovative fit-for-purpose label solutions specifically designed to optimize your performance and future-proof your products.



PP40 Top Clear

- Clear film facestock, made using 20% less materials – the thinnest in the ASEAN industry – without compromising printing or application performance
- Carries more labels per roll¹
- Offered with Avery Dennison's industryleading top coat for quality and durability²
- Increased clarity and better blend with the substrate (due to lower caliper)



rPP Top White

- White PP facestock, made using 30% recycled content, available at an equivalent price compared to legacy product — a first in the ASEAN industry
- Offered with Avery Dennison's industryleading top coat for quality and durability²
- High gloss and opacity for a premium look



MC Elite FSC

- Semi gloss paper, made using 14% less materials – the lightest in the ASEAN industry (70 GSM) – with strength, opacity and gloss similar to 80 GSM paper
- FSC certified
- Carries more labels per roll¹
- Can also be used for applications requiring overlamination

Carbon Footprint Comparison

Product	Carbon emissions	Savings per 1M SQM	Product	Carbon emissions	Savings per 1M SQM	Product	Carbon emissions	Savings per 1M SQM
PP40 Clear	0.40 kgCO ₂ E/sqm	-8% Equivalent to 16,081 driven by an average passenger vehicle	rPP60	0.43 kgCO ₂ E/sqm	-9% Equivalent to	MC Elite FSC	0.50 kgCO ₂ E/sqm	-7% Equivalent to
PP50 Clear	0.50 kgCO ₂ E/sqm		PP60	0.48 kgCO ₂ E/sqm	17,148 driven by an average passenger vehicle	Primecoat	0.53 kgCO₂E/sqm	14,055 driven by an average passenger vehicle

Carbon footprint measurement is based on 1 million sqm.

Data is provided by the Carbon Trust. Scope: Cradle to Gate + Transport + End-of-Life

 When a label is thinner, one roll is able to carry more labels, providing benefits of longer machine uptime due to fewer roll changes, minimized storage space, and delivering more per transportation (less CO₂ emissions). 2.High speed print performance, strongest ink anchorage, enhanced abrasion resistance and durable print quality survives the journey of the package – from the plant to the shelf to the consumer and end-of-life.





S7210 Emulsion

- Enables short-term repositionability³
- Improved adhesive ooze4
- Specially engineered for strong, longlasting adhesion on glass and PET substrates
- A clear adhesive that enables the 'no label look' with a clear film face material
- Can be paired with PP40 Clear and rPP White
- Complies with FDA standards for non-direct-food contact



CleanFlake[™]

- Enables food-grade bottle-to-bottle recycling through a clean removal of the label during PET recycling
- Specially engineered for strong, longlasting adhesion on PET substrates
- Retains the aesthetics of a standard film label
- Can be paired with PP40 Clear and rPP White
- Suitable for various PET container types including punnets and trays
- CleanFlake[™] is accredited by the Association of Plastic Recyclers for complying with its critical guidance for both PET and HDPE recycling – Metallized films also recently certified! Learn more about how it works.



S2025N Hotmelt

- Contains 30% bio-based materials
- Improved adhesive ooze⁴
- Specially engineered for strong, longlasting adhesion on glass substrates
- Ideal for high-speed converting
- Can be paired with MC Elite FSC
- Complies with FDA standards for non-direct-food contact

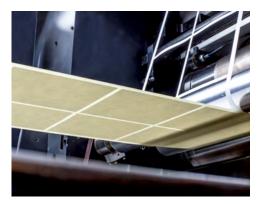
3.Labels that have been incorrectly placed can be removed and reused, saving labels and bottles from being discarded.

4.Adhesives that don't ooze enable cleaner converting and labeling, increased machine uptime, and keeps labels dust-free.



rPET23

- Contains 30% recycled materials
- The thinnest PET liner in the industry — Carries more labels per roll¹
- Ideal for high-speed converting and dispensing at speed of more than 600 bottles per minute
- Enables the 'no label look' when paired with a clear film face material



BG33

- The thinnest glassine liner in the industry — Carries more labels per roll¹
- FSC certified
- Can be paired with prime labels without the need to change die tools
- Maintains the strength for smooth dispensing

Product	Carbon emissions	Savings per 1M SQM	Product	Carbon emissions	Savings per 1M SQM		
rPET23	0.38 kgCO₂E/sqm	-12% Equivalent to	BG33	0.43 kgCO₂E/sqm	-6% Equivalent to		
Virgin PET23	0.44 kgCO ₂ E/sqm	20,719 driven by an average passenger vehicle	BG40	0.48 kgCO ₂ E/sqm	11,356 driven by an average passenger vehicle		

Carbon Footprint Comparison

 When a label is thinner, one roll is able to carry more labels, providing benefits of longer machine uptime due to fewer roll changes, minimized storage space, and delivering more per transportation (less CO₂ emissions).

			Application Products							Substrates		
Code	Description	Sustainable ADvantage	Functionality	Saucesa	nd ents	2011 Sweet	spread concert	Hor Bever	alic Bothed Water	PET	01855	
BW7087	rPP Top White/S7210/BG33Wh Imp FSC		Repositionable	~	~	~	~	~	~	~	~	
BW7092	PP40 Top Clear/S7210/BG40Wh Imp FSC		Repositionable	~	~	~	~	~	~	~	~	
BW7043	rPP Top White/SR3013/BG33Wh Imp FSC	f" 🖓 🎔	AD CleanFlake*	~	~	~	~	~	~	~	~	
BW7055	PP40 Top Clear/SR3013/ BG40Wh Imp FSC	Di Pi	AD CleanFlake*	~	~	~	~	~	~	~	~	
BW7096	rPP Top White/S7210/rPET23		Repositionable, High Speed Labelling (>600 bpm)	~	~	~	~	~	~	~	~	
BW7097	PP40 Top Clear/ S7210/rPET23		Repositionable, High Speed Labelling (>600 bpm)	~	~	~	~	~	~	~	~	
AW0505F	MC Elite FSC/S2025N/BG33Wh Imp FSC	8 ⊙♥		~	~	~	~		~	~	~	

NextGen F&B Product List

 \mathbb{P} Reduction in the Use of Materials

Enable Recyclability, Reuse or Compostability

Contains Recycled or Renewable Content

Responsibly Sourced

* Repositionable CleanFlake adhesive SR3013N is available.





Taking responsibility of label waste through AD Circular

Although necessary for protecting the face and adhesive, liners are eventually discarded immediately following label application. Also, in order to achieve the desired label cut, matrix waste is unavoidable. Avery Dennison takes responsibility for managing solid waste that are generated beyond our facilities. You can rest assured that through AD Circular—our recycling program—liner and matrix waste can be recycled.

Learn more about AD Circular.



Carbon transparency with the Carbon Trust

We know that you are looking to better understand the environmental effects of the products you use. That's why we have partnered with the Carbon Trust to develop a bespoke carbon footprinting tool that offers a more thorough measurement of the impact of our products using primary data for raw materials and operations. This allows us to quantify carbon impacts on a product level with more certainty for customer product selection, new product development and greenhouse gas (GHG) accounting.

Learn more about the Carbon Trust.

Who we are

As the pioneer in the pressure-sensitive industry, we bring one-of-a-kind capabilities to sustainable labeling. We combine decades of innovation with deep knowledge of both regulatory and legal requirements. We know about the real-world conditions in which our labels must perform and the technical challenges they have to meet. Whatever your product, wherever it's going, we can help you develop a sustainable label that performs.

What we stand for

Sustainability. Innovation. Quality. Service.

In 1935, we invented the first self-adhesive label, and we've never looked back. With each passing decade, our innovations have further shaped our industry by lifting the limits on what labels can do. The world's most successful brands know that innovation and evolution are the lifeblood of longevity and success. We're proud to help our clients continually expand the boundaries of what's possible.

Work with us

You're the expert in your business; we're the expert in labeling. Contact your local Avery Dennison representative today or visit <u>label.averydennison.com</u> to find out how we can meet and exceed your needs.

Discover more possibilities

What else do you need? Let us know and we'll help you find or develop your desired labeling solution. Contact your trusted Avery Dennison sales representative or submit a request by clicking or scanning the code below.





label.averydennison.com

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