

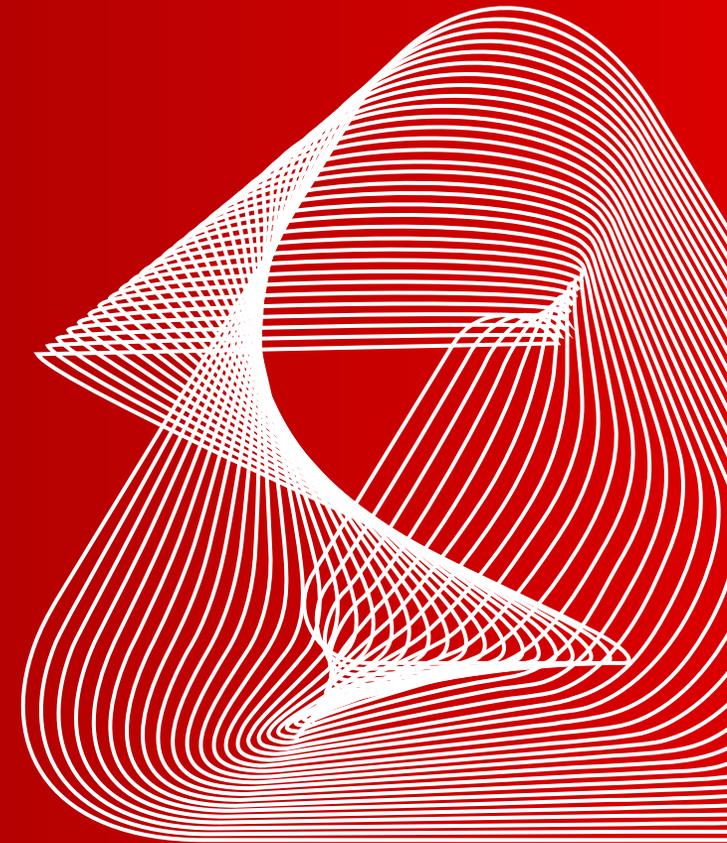


LabelTalk

by Avery Dennison

PS 101: The Product Portfolio

2022



Welcome to the Webinar

Starts at 10:30 AM



Please wait



Agenda

- Facestock
 - Paper
 - Variable Information (VI)
 - Film
- Adhesive
 - Advanced Adhesive
 - Biomass Adhesive
- Customer Tools
 - Product Components Guide (PCG)
 - Product Service Guide (PSG)
 - Product Finder



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](#)



Kin ZiXian

Product Manager, Film, ASEAN

5+ years of diversified experience in managing portfolios of various product lines in label industry.

[Webinar Part 2](#)



Facestock - Prime Paper

Prime Paper



Cast Coated

- > Mirror Coat/ High gloss
- > Very smooth
- > Excellent
- > High
- > High



Machine Coated

- > Art Paper/ Semigloss
- > Smoother
- > Superior
- > Moderate
- > Moderate



Uncoated

- > Simili Paper/ Vellum
- > Less smooth than MC paper
- > Good
- > Low
- > N/A

Also known as
Paper Surface
Print Quality
Stiffness
Glossiness

Cast Coated Paper

Also known as : Mirror Coat/ High Gloss

Avery Dennison Products:

- > High Gloss Elite FSC
- > High Gloss Paper
- > Gloss Plus FSC

Properties

- ✓ High gloss finish and paper stiffness
- ✓ Excellent print quality
- ✓ Excellent optical appearance
- ✓ Excellent ink hold-out
- ✓ No over-varnishing necessary for High Gloss
- ✓ Excellent varnish-ability for Gloss Plus to achieve high gloss aesthetic appearance

Applications:

- > Health & Beauty
- > Food & Beverage
- > Pharmaceutical
- > General Purpose



CAST COATED

White, cast-coated, high gloss finished, woodfree printing paper.

	Basis Weight (gsm)	FSC	Printability	Die-cutting	Label Application	Glossiness (post-varnish)
High Gloss Paper	80	No	★★★★★	★★★★★	★★★★★	★★★★★
High Gloss Elite FSC	80	Yes	★★★★★	★★★★★	★★★★★	★★★★★
Gloss Plus FSC	80	Yes	★★★★★	★★★★★	★★★★★	★★★★★



Machine Coated Paper

Also known as : Art Paper/ Semigloss

Avery Dennison Products:

- > MC Prime FSC / Fascoat 2 FSC
- > MC Primecoat GP FSC
- > MC Elite FSC

Properties

- ✓ Semi-gloss appearance
- ✓ Lower cost alternative to cast gloss
- ✓ Prints well with most technologies

Application:

- > Health & Personal Care
- > Food & Beverage
- > Pharmaceutical
- > General Purpose



MACHINE COATED

White, semi gloss finished, machine coated, calendered white printing paper.

	Basis Weight (gsm)	FSC	Printability	Die-cutting	Label Application
Fascoat 2 FSC / MC Prime FSC	80	Yes	★★★★★	★★★★★	★★★★★
MC Primecoat GP FSC	80	Yes	★★★★	★★★★★	★★★★★
MC Elite FSC	70	Yes	★★★★	★★★★★	★★★★★

Uncoated Paper

Also known as : Simili Paper/ Vellum

Avery Dennison Products:

- > Vellum FSC
- > Vellum Elite FSC

Properties

- ✓ Suitable for impact printing
- ✓ Economic grade for low cost labeling

Application:

- > Price Tags
- > Packaging & Promotional labeling



UNCOATED

White, machine finished, woodfree-printing paper

	Basis Weight (gsm)	FSC	Printability	Die-cutting	Label Application
Vellum FSC	70	Yes	★★★★★	★★★★★	★★★★★
Vellum Elite FSC	60	Yes	★★★★★	★★★★★	★★★★★



Variable Information (VI) Paper



Direct
Thermal



Thermal
Transfer



Laser,
Copier,
Inkjet

Direct Thermal (DT)

Avery Dennison Products:

- > Direct Thermal Premium FSC (TC)
- > Direct Thermal 200WS FSC (TC)
- > Direct Thermal 200GP FSC (TC)
- > Direct Thermal 200ST FSC (TC)
- > Direct Thermal 60 TC FSC (TC)
- > Direct Thermal 150RL FSC (TC)
- > rDirect Thermal 300LD BPAF FSC (NTC, 15% PCW content)

Advantages

- ✓ BPA-Free
- ✓ Low noise printing and maintenance costs
- ✓ Only one consumable
- ✓ Printers are compact, portable
- ✓ Good print resolution

Application:

- > e-Commerce
- > Grocery weighing-scale
- > Logistics / Ship & Track
- > Baggage Tags
- > Tickets & Passes



DIRECT THERMAL



	Top-coat	Face Type	Basis Weight (gsm)	Thickness (micron)	FSC	BPA Free	Print Definition	Print Durability
Direct Thermal PP 300BL	Yes	Film	70	85	N/A	N/A	★★★★★	★★★★★
Direct Thermal Premium FSC	Yes	Paper	74	77	Yes	Yes	★★★★★	★★★★★
Direct Thermal 200WS FSC	Yes	Paper	67	70	Yes	Yes	★★★★	★★★
Direct Thermal 200GP FSC	Yes	Paper	76	80	Yes	Yes	★★★★	★★★
Direct Thermal 200ST FSC	Yes	Paper	65	70	Yes	Yes	★★★★	★★★
Direct Thermal 60 TC FSC	Yes	Paper	60	60	Yes	Yes	★★★★	★★★
Direct Thermal 150RL FSC	Yes	Paper	73	74	Yes	Yes	★★★	★★
rDirect Thermal 300LD FSC	No	Paper	70	72	Yes	Yes	★★★	★★

DIRECT THERMAL : Features & Applications



	Features	Recommended Applications
DT PP 300BL	<ul style="list-style-type: none"> → Excellent resistance to moisture, oils and fats → Smudge resistance → High speed barcode thermal printing 	<ul style="list-style-type: none"> → Retail and industrial sectors e.g. pre-packed food, meat and fish, laboratory items and pharmaceutical applications.
DT Premium FSC	<ul style="list-style-type: none"> → High level of image resistance → Excellent resistance to alcohol, moisture, fat, oil, etc 	<ul style="list-style-type: none"> → Pre-packed food (e.g. meat, fish, poultry, cheese) → Industrial barcoding (e.g. tracking, shelf edge, laboratory, hospital)
DT 200WS FSC	<ul style="list-style-type: none"> → Thinner and lighter facestock with added conformability 	<ul style="list-style-type: none"> → Pre-packed food in limited water exposure or dry environments (vegetables, fruits, etc), weigh scale, tracking and warehousing.
DT 200GP FSC	<ul style="list-style-type: none"> → General barcode labeling with essential resistance to oil, water and heat. 	<ul style="list-style-type: none"> → Retail (pre-packed food), weigh scale, tracking and warehousing.
DT 200ST FSC DT 60 TC FSC	<ul style="list-style-type: none"> → General barcode labelling in dry environment. 	<ul style="list-style-type: none"> → Warehouse logistics, ship & track (E-Commerce)
DT 150RL FSC	<ul style="list-style-type: none"> → Good barcode labelling where the environment is dry and label life cycle requirement is short 	<ul style="list-style-type: none"> → Weigh scale, dry pre-packed food (deli, nuts, etc), ship & track for short distance.
rDT 300LD FSC	<ul style="list-style-type: none"> → Consists of 15% PCW recycled content → Less demanding on image durability. 	<ul style="list-style-type: none"> → Warehouse logistics, address labelling, retail non-food (magazine, furniture, etc)

Thermal Transfer (TT)

Avery Dennison Products:

- > Premium Transtherm 1C FSC
- > Transtherm 2C FSC
- > Transtherm Plus FSC
- > Transtherm Elite FSC

Advantages

- ✓ High printing quality (barcodes)
- ✓ High stability / durability of the print
- ✓ Wide variety of substrates
 - Paper
 - Coated Film

Application:

- > Logistics / Ship & Track
- > Warehousing



THERMAL TRANSFER PAPER

	Basis Weight (gsm)	Thickness (micron)	FSC	Print Definition	Print Durability
Premium Transtherm 1C FSC	81	89	Yes	★★★★★	★★★★★
Transtherm 2C FSC	81	89	Yes	★★★★★	★★★★★
Transtherm Plus FSC	62	66	Yes	★★★★★	★★★★★
Transtherm Elite FSC	62	66	Yes	★★★★★	★★★★★



Laser Copier Jet (LCJ)

Avery Dennison Products:

- > LCJ Premium FSC

Advantages

- ✓ High print speeds of printer
- ✓ Multiple functions of printer
- ✓ Multicolour features
- ✓ Lower noise level
- ✓ Smaller size of printers

Application:

- > Small Office Home Office (SOHO)
- > Industrial labelling
- > Pharmaceutical & Medical



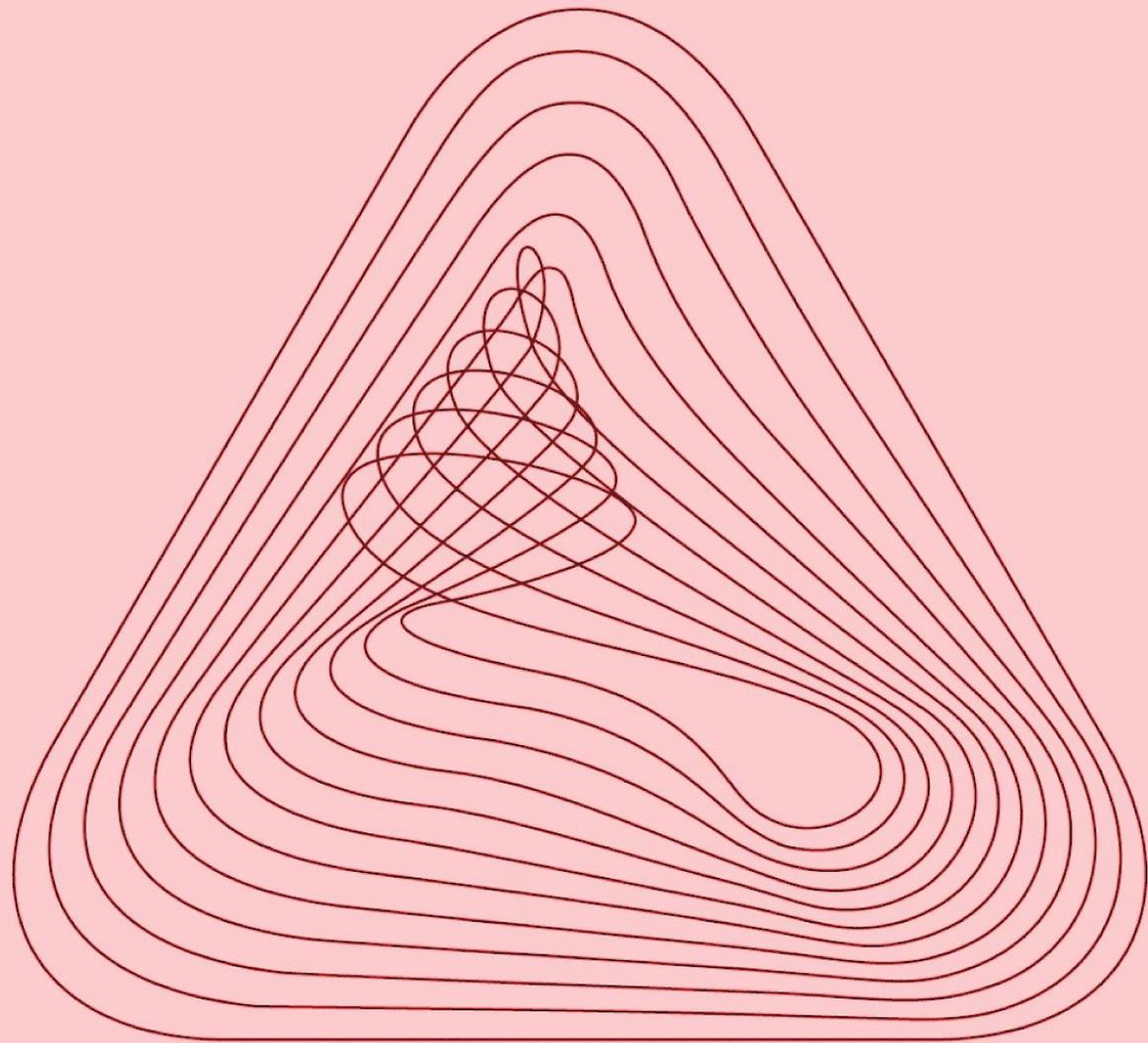
Laser Copier Inkjet (LCJ) Paper

	Basis Weight (gsm)	Thickness (micron)	FSC	Print Definition	Print Durability
LCJ Premium FSC	64	74	Yes	★★★★★	★★★★★

Features:

- Designed for the manufacture of A4 sheets for use in laser printers, copiers and monochrome inkjet printer.
- Good opacity, excellent toner bonding and print resolution.
- Paired with CCK55, good layflat properties for sheets form applications.







Facestock

Prime Film

Film Surface Treatments

1 Top-coating

A chemical coating applied to the surface to improve ink and toner anchorage.

> Various types available, depending on application uses.

2 Corona Treatment

Alter surface characteristics by exposing surface to a high voltage discharge (corona), resulting in an increase of surface energy (dyne level)

> Typically 38-42 Dynes for good ink anchorage
> Dissipate with age and timing varies with film
> Over treat will cause print to washout or result in poor ink anchorage.

Prime Film



Conformable

- > Polyethylene, PE
- > Polyolefin, PO

Rigid

- > Polypropylene, PP
- > Polyester, PET

Polyethylene, PE

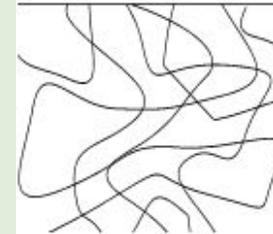
Avery Dennison Products:

- > PE85 Top White / Trans (Clear) / Silver
- > PE85 NTC White / Trans (Clear)
- > PE75 NTC White / Trans (Clear)

Properties

- ✓ Soft & flexible
- ✓ Excellent conformability and squeezability

No orientation



Limitation:

- > slightly hazy, not 100% clear
- > limited heat and shrink resistance
- > not resistant to baby oil, causes swelling
- > can be stretched and torn



POLYETHYLENE (PE)

Full conformable and squeezable film, able to conform to difficult container shapes and designed for full squeeze applications

	Thickness	Printability	Die-cutting	Stiffness	Label Application	Conformability
PE85 Top	82 um	★★★★★★	★★★★★ ★	★★★★★★	★★★★★★	★★★★★★
PE85 NTC	82 um	★★★★	★★★★★ ★	★★★★★★	★★★★★★	★★★★★★
PE75 NTC	75 um	★★★★	★★★★★ ★	★★★★★★	★★★★★★	★★★★★★

Target Application

- ✓ General Purpose
- ✓ Home & Personal Care
- ✓ Cosmetics





Polyolefin, PO

Avery Dennison Products:

- > Flex+
- > Global Co-Ex | Global MDO
- > Fasclear | Primax

Properties

- ✓ “mixing” the properties of PE and BOPP
- ✓ good conformability designed for semi squeezable applications (preferred PET, HDPE substrate)
- ✓ enhanced clarity for “no-label” look
- ✓ maintains excellent register during printing

POLYOLEFIN (PO)

Blend of PE/PP that offers balanced in conformability, convertibility and dispensability

	Thickness	Clarity	Printability	Die-cutting	Stiffness	Label Application	Conformability
Flex+	55 um	★★★★★	★★★★★	★★★★★★	★★★ ★	★★★★★★	★★★★★
Global MDO	50um	★★★	★★★★★	★★★★★★	★★★ ★	★★★★★★	★★★★★
PE85 NTC	82um	★★★	★★★★★	★★★★★★	★★★★	★★★★	★★★★★★

Target Application

- ✓ Home & Personal Care
- ✓ Cosmetics





Polypropylene, PP

BOPP - Biaxially Oriented Polypropylene

Avery Dennison Products:

- > PP60 & 50 - Pearl White
- > PP50 & 40 - Gloss White / Clear / Silver

Properties

- ✓ rigid, high tear resistance
- ✓ dimensionally stable
- ✓ excellent clarity for “no-label” look

Bi-orientation (BO)



Limitation:

- > Limited/No conformability for squeezable application.
- > Top coating is recommended for best results of printing.

POLYPROPYLENE (PP) - White

Rigid films offer high tensile strength in both directions for excellent converting, and high stiffness that allow thinner labels to be dispensed

	Thickness	Top-coat	Printability	Die-cutting	Stiffness	Label application
PPNg Top Pearlized White	60 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★
PP60 Top White	60 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★
PP50 Top White	50 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★
PP50 Top Pearlized White	50um	Yes	★★★★★	★★★★★	★★★★★	★★★★★
PP40 Top White	40 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★

Target Application

- ✓ General Purpose
- ✓ Home & Personal Care
- ✓ Cosmetics
- ✓ Food & Beverage

POLYPROPYLENE (PP) - Clear

Creates “no label” look, often used to decorate PET and glass containers

	Thickness	Top-coat	Printability	Die-cutting	Stiffness	Label application
PPNg Top Trans	50 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★
PP40 Top Clear	40 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★

Target Application

- ✓ General Purpose
- ✓ Home & Personal Care
- ✓ Beer & Beverage
- ✓ Cosmetics



PS101 : The Product Portfolio



Classification: Avery Dennison - Public

POLYPROPYLENE (PP) - Silver

For a premium, high-end metallic appearance associated with luxury, trendiness & innovation

	Thickness	Top-coat	Printability	Die-cutting	Stiffness	Label application	Gloss
PP50 Silver TC	50 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
PP TC Silver Elite	47 um	Yes	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
PP40 Top Silver	40um	Yes	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★

Target Application

- ✓ Home & Personal Care
- ✓ Food & Beverage
- ✓ Cosmetics,
- ✓ Promotional Labels



Polyester, PET

Avery Dennison Products:

- > 1M PET TC (Matte Chrome/Clear)
- > 2M PET TC (White / Matte White / Bright Silver / Matte Chrome/Clear)
- > 3M PET TC (Matte White)

Properties

- ✓ high strength, maximum durability
- ✓ high tear resistance due to biaxial orientation
- ✓ high temperature resistance
- ✓ high chemical resistance
- ✓ excellent clarity or good opacity
- ✓ good resistance to outdoor environment

Limitation:

- > Limited conformability, not suitable for squeezable application.



Film or paper?

Considerations

→ Durability Requirement

→ Conformability

→ Converting

→ Appearance

→ Application

→ Printing

Film

Advantages

- > Moisture and tear resistance
- > Better durability to UV, heat, chemical, abrasion, and autoclave exposures
- > Flexible/Conformable - ideal for squeeze and reclosure applications
- > Offers “no label look” on clear containers

Limitations

- > Relatively high cost

Paper

- > More friendly to various printing technologies
- > Wide variety of facesheet options
- > Relatively low cost

- > No water resistance
- > Lower durability
*(*Solution - to overlaminate the facestock)*



Adhesive

Avery Dennison Advanced Adhesives

Avery Dennison has three families of adhesives:

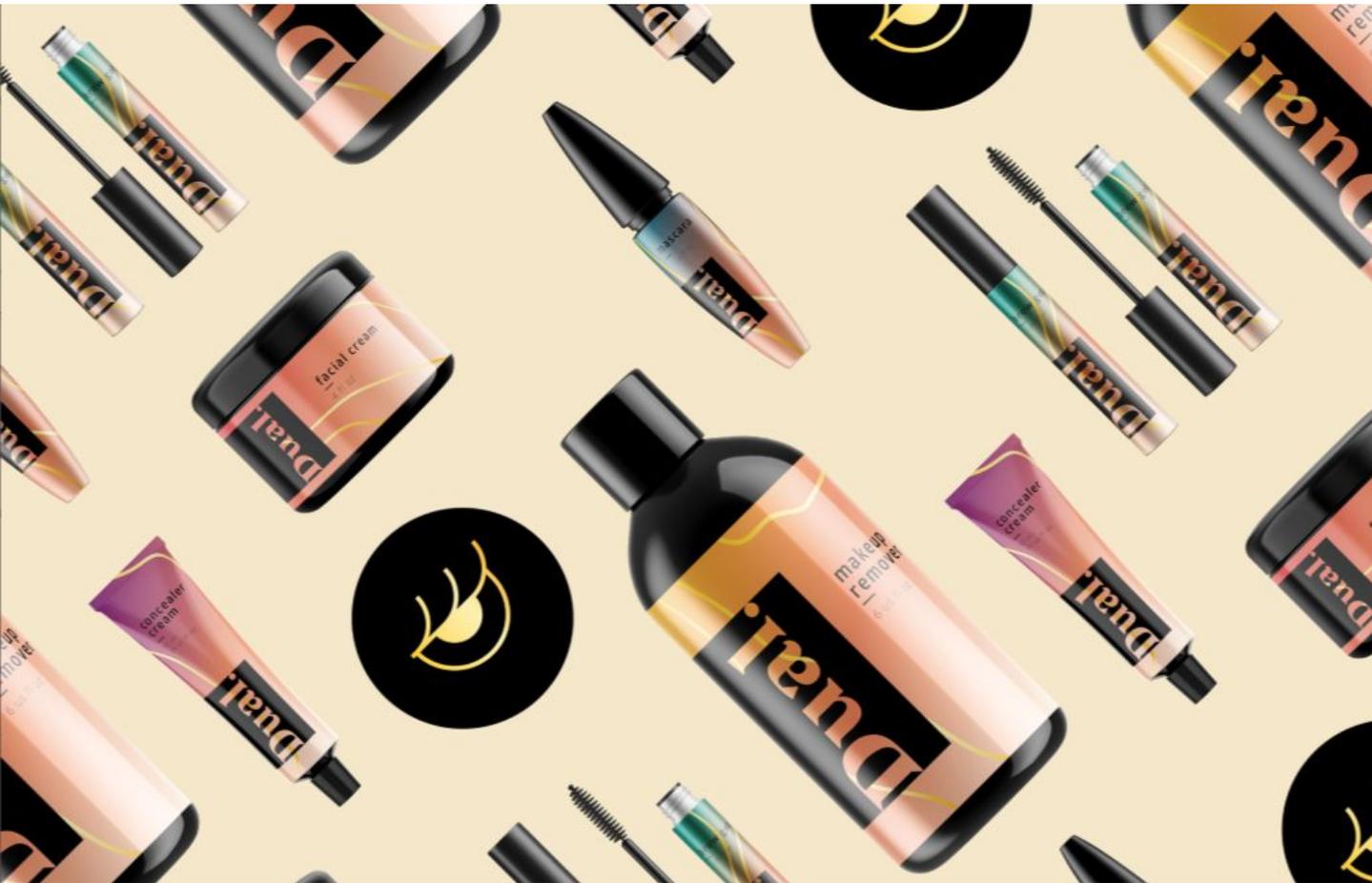


Emulsion

Biomass Adhesive



- > Emulsion Acrylic
- > 30% renewable based content
- > APEO free
- > Sustainable PSA enabling CO2 reduction
- > Wide service temperature range
- > Excellent clarity
- > Excellent long term adhesion
- > Excellent converting



Customer Tools

Customer Tools



Product Component Guide (PCG) - Yearly update

Listing of all core facestocks, adhesives and release liners that make up Avery Dennison pressure-sensitive label materials.

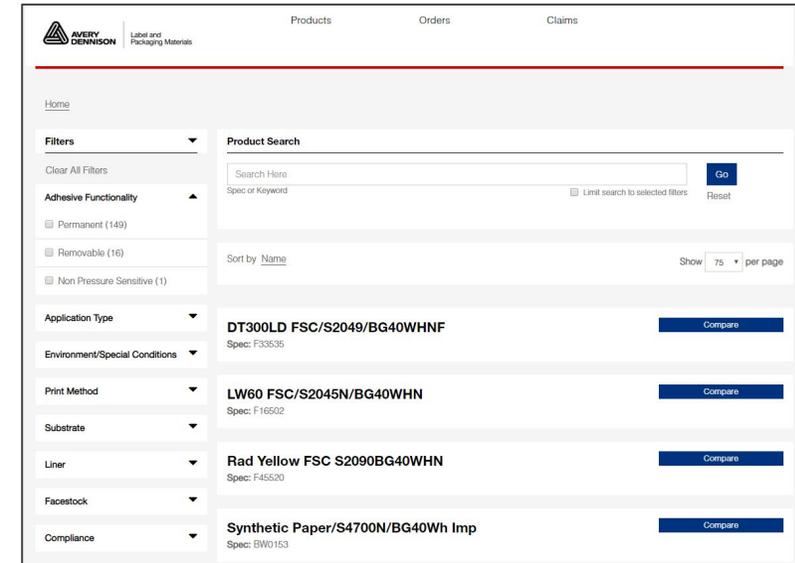
▶ Find out [more](#)



Product Service Guide (PSG) - Quarterly update

Guide to service program on Avery Dennison product portfolios.

▶ Find out [more](#)



Product Finder

Search here for the right product to meet your specific application needs.

- ▶ ASEAN Product Finder - [Link](#)
- ▶ China Product Finder - [Link](#)
- ▶ Europe Product Finder - [Link](#)
- ▶ North America Product Finder - [Link](#)

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