

Customer-Ready™ Durables Portfolio

Simplifying the time,
cost and complexity of
durable goods labeling



Helping you to grow your durables business

The Avery Dennison Customer-Ready™ Durables Portfolio includes our UL®/CSA-recognized material solutions that simplify servicing the durables market. This core group of UL/CSA-recognized multipurpose products, including inks, ribbons and adhesives, make it faster, easier and more affordable to adopt a product for your UL/CSA file.



Growing along with you

The Customer Ready Durables portfolio has been a go-to resource for converters and customers for over 10 years. We continue to add components in response to the introduction of new materials in the durables marketplace and converter requests. We have most recently included:

- New inks tested in our lab
- New printers and that have been tested for our materials

These new materials not only increase the portfolio's versatility, they increase the breadth and depth of its application coverage.

The bottom line? Less testing time, less expense, quicker order response and increased business opportunities.

The Customer-Ready Portfolio is designed to streamline product selection, testing and qualification through the use of UL/CSA recognized constructions. Our goal is to offer a portfolio of options for a variety of applications that are easily adopted into your UL/CSA file.

It includes:

- A core of multipurpose products proven to cover the majority of durables and industrial applications, including PET, polypropylene, vinyl and overlamine films, as well as digital products.
- Cost-effective, fit for use solutions offered through the Avery Dennison EXACT™ service program.
- UL/CSA-recognized materials with flexo and digital inks, thermal transfer ribbons, and two proprietary adhesives.
- A versatile overlamine to provide chemical, weathering and abrasion resistance.

The Avery Dennison UL/CSA-recognized system simplifies file for a label adoption, significantly reducing the time, cost and effort of adding a product to a UL file.



Overlamine:

| Spec # | Description |
|--------|--|
| 77844 | 1 Mil Clear Print-Treated PET/S8020/40# BG |

All base materials are UL/CSA recognized with a variety of press inks (see selection tool for details).

Base Material:

| Spec # | Description |
|--------|---|
| 78385 | 2 Mil White PET TC S8001/50# SCK |
| 78387 | 2 Mil Matte Chrome PET TC/S8001/50# SCK |
| 77920 | 2 Mil White PET TC/S8001/50# SCK |

UL/CSA recognition is an unknown process for many converters

For converters, having a printed label UL/CSA-recognized takes hours of manpower, weeks of testing and thousands of dollars. Using a Customer-Ready construction lets you file for a label adoption instead, saving immense time, money and effort. The advantages are clear.

Faster. Reduced from 12+ weeks to 2

With Customer-Ready, UL/CSA-recognition time is reduced by 84%, increasing a product's speed to market and your reputation as a responsive business partner – both of which expand sales growth opportunities.

Easier. More materials for more applications

The UL/CSA file for our newly expanded portfolio offers the largest listing of surfaces and conditions to cover a wider range of end-use applications. This simplifies the process. Plus, our products are tested and UL/CSA-recognized with ACTEGA WIT, EIC, Flint, EFI Jetrion and HP Indigo inks as, well as leading thermal transfer ribbons.

Less Expense. Cut by up to 74%

The Customer-Ready label adoption process adds bottom line value. Our wide range of end-use applications reduces inventory SKUs and carrying costs. Plus EXACT service program offerings allow for precise estimating and lower total applied costs – think reduced scrap, no trim costs and just-in-time inventory.

More Opportunities.

With a minimum order quantity of a single roll and rapid delivery, you can now take on jobs that would have not been feasible or profitable in the past. This quick turn capability allows you to increase speed to market and generate new business.

Another Way We Can Help Simplify Your Durables Business

In-house Global Client Services Laboratory streamlines product testing and qualification for UL/c-UL recognition

Starting from scratch to get a product recognized? Our Global Client Services Laboratory has everything needed to conduct testing equivalent to that done in UL's own laboratories. For example, to support testing nameplates and safety labels to UL 969 and CSA C22.2 No. 0.15 standards, the lab can perform the following tests on selected substrates, inks and ribbons.

- Legibility
- Defacement
- Chemical Exposure
- Humidity Exposure
- Heat Aging
- Adhesion
- Taber Abrasion
- Water Resistance
- Environmental (Cold/UV) Resistance

Once testing has been completed, Avery Dennison provides UL with a data sheet ready package of results for the materials tested. All data submitted is thoroughly reviewed and audited by UL before recognition is issued.

Faster Testing Gets Products to Market Sooner

Reflecting our commitment to support customers, the Global Client Services Laboratory offers you a streamlined, cost-effective process intended to get UL/c-UL recognized products to market sooner:

- Faster testing by our in-house Global Client Services Laboratory results in products that can be recognized and listed sooner, facilitating streamlined label adoption for our customers
- New features can quickly be added to existing, recognized products

What's more, our strong ties to UL and our in-depth understanding of the recognition process allows us to provide invaluable support and collaboration on new materials requiring UL recognition, speeding the materials creation and increasing business opportunities for converters and brand owners alike.

Getting Started

Choosing components for your UL/c-UL/CSA-recognized label has never been easier.

Before starting you'll need to know three things:



End Use:

- Function of Label
- Permanent, Removable or Repositionable
- Substrate
- Environmental Conditions
- Label Application

Processing:

- Press Technology
- Electronic Printing Method
- Converting

Compliance:

- Environmental
- Agency
- End User Specification

Then follow these 5 steps:

- Step 1** Determine product candidates that meet your application's requirements.
- Step 2** Cross reference with application's surface and UL/c-UL/CSA environmental conditions.
- Step 3** Select printing ink system.
- Step 4** Select thermal transfer ribbon.
- Step 5** Submit label adoption request with Avery Dennison file number and product description to UL.

Step 1

Determine product candidates that meet your application's general requirements

| Spec# | Face | Adhesive | Liner | Min. Appl. Temp (°C) | Low Service Temp (°C) | High Service Temp (°C) | Chem. Resist* | Convertibility | Comments |
|-----------------------|----------------------------------|----------|-----------|----------------------|-----------------------|------------------------|---------------|----------------|---|
| Overlamine: | | | | | | | | | |
| 77844 | 1 Mil Clear Print Treated PET | S8020 | 40#BG | -4 | -40 | 150 | 7 | 9 | Provides resistance to chemicals, weathering and abrasion. |
| 77841 | 1 Mil Clear Topcoated PET | S8020 | 40#BG | -4 | -40 | 150 | 7 | 9 | Provides resistance to chemicals, weathering and abrasion. |
| 77843 | 1 Mil Matte NTC PET | S8020 | 40#BG | -4 | -40 | 150 | 7 | 9 | Provides resistance to chemicals, weathering and abrasion. |
| 79325 | 1 Mil Clear UV Print Treated PET | S3000 | 1 Mil PET | -4 | -40 | 150 | 7 | 9 | Provides improved resistance to UV exposure along with resistance to chemicals, weathering and abrasion. Recognized with limited combinations. |
| Base Material: | | | | | | | | | |
| 78401 | 3 Mil Synthetic Paper | S8001 | 50#SCK | 10 | -40 | 80 | 8 | 7 | Matte white polypropylene; cost effective alternative to PET for indoor applications. |
| 78403 | 2.3 Mil White BOPP TC | S8001 | 50#SCK | 10 | -40 | 80 | 7 | 7 | Glossy white polypropylene; cost effective alternative to PET for indoor applications. |
| 78385 | 2 Mil White PET TC | S8001 | 50#SCK | 10 | -40 | 150 | 8 | 7 | High strength film suitable for demanding indoor and outdoor applications. |
| 78387 | 2 Mil Matte Chrome PET TC | S8001 | 50#SCK | 10 | -40 | 150 | 8 | 7 | |
| 76656 | 2 Mil White PET TC | S8015 | 50#SCK | 10 | -40 -23 | 150 | 10 | 9 | High strength film suitable for demanding indoor and outdoor applications. S8015 features high initial tack, adhesion and shear, and excellent chemical and UV resistance. |
| 76660 | 2 Mil Matte Chrome PET TC | S8015 | 50#SCK | 10 | -40 -23 | 150 | 10 | 9 | |
| 77922 | 2 Mil Matte Chrome PET TC | S8025 | 50#SCK | 10 | -40 | 150 | 10 | 9 | High strength film suitable for demanding indoor and outdoor applications. |
| 78981 | 2 Mil White PET TCD | S8025 | 50#SCK | 10 | -40 | 150 | 10 | 9 | |
| 77920 | 2 Mil White PET TC | S8025 | 50#SCK | 10 | -40 | 150 | 10 | 9 | High strength film suitable for demanding indoor and outdoor applications. S8025 offers improved chemical resistance and convertibility. |
| 79648 | 4 Mil White Flex Vinyl TCD | S8025 | 50#SCK | 10 | -40 | 80 | 8 | 6 | Durable topcoat designed for flexographic and durable inks, also allows for thermal transfer printing |
| 77921 | 2 Mil Clear PET TC | S8025 | 50#SCK | 10 | -40 | 150 | 10 | 9 | High strength film suitable for demanding indoor and outdoor applications. S8025 offers improved chemical resistance and convertibility. |
| 79732 | 2 Mil White PET TC | S8029 | 50#SCK | 10 | -40 | 150 | 10 | 8 | High strength film suitable for demanding indoor and outdoor applications. S8029 features extremely high final adhesion on a wide variety of surfaces, and excellent chemical resistance. |
| 79453 | 2 Mil White PET TC | S8049 | 50#SCK | 10 | -40 | 150 | 10 | 9 | High strength film suitable for demanding indoor and outdoor applications. S8049 offers improved adhesion on rough, oily and low surface energy substrates. |
| 79534 | 2 Mil Matte Chrome PET TC | S8049 | 50#SCK | 10 | -40 | 80 | 7 | 7 | High strength film suitable for demanding indoor and outdoor applications. S8049 offers improved adhesion on rough, oily and low surface energy substrates. |

Notes:
 All products are offered Fasson EXACT™
 All base material products are suitable for bonding to all surface energy substrates.
 Additional UL-recognized product constructions are available. Contact your sales representative for further information.

10 Excellent —> 1 Poor

Step 2

Cross reference with application's surface and UL/c-UL/CSA conditions

Polyester - UL Conditions

| | 77920: 2 Mil White PET TC/ S8025/50#SCK | | | | | 78385: 2 Mil White PET TC/ S8001/50#SCK | | | | | 79453: 2 Mil White PET TC/ S8049/50#SCK | | | | | 76656: 2 Mil White PET TC/ S8015/50#SCK | | | | | |
|--------------------------------------|---|------------|------------|------------|-------------|--|------------|------------|------------|-------------|--|------------|------------|------------|-------------|--|------------|------------|------------|-------------|-------------|
| | Surfaces | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. |
| UL - Recognition | Acrylic Paint | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O | 150 | -23 | Yes | Yes | - |
| | Acrylic Powder Paint | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - |
| | Acrylonitrile Butadiene Styrene | 80 | -40 | Yes | Yes | O,G | 80 | -40 | Yes | Yes | O,G | 80 | -40 | Yes | Yes | O | 80 | - | Yes | Yes | - |
| | Alkyd Paint | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O | 150 | -40 | Yes | Yes | - |
| | Aluminum | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O | 150 | -40 | Yes | Yes | - |
| | Anodized Aluminum | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | - | - | - | - | - | 150 | -40 | Yes | Yes | - |
| | Chromate Treated Metal | - | - | - | - | - | - | - | - | - | - | 150 | -40 | Yes | Yes | - | - | - | - | - | - |
| | Epoxy Paint | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - |
| | Epoxy Powder Paint | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | O | 150 | -23 | Yes | Yes | - |
| | Galvanized Steel | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - |
| | Melamine | 100 | -40 | Yes | Yes | O,G | 100 | -40 | Yes | Yes | O,G | - | - | - | - | - | 100 | -40 | Yes | Yes | - |
| | Nylon | 100 | -40 | Yes | Yes | O,G | 100 | -40 | Yes | Yes | O,G | 100 | -40 | Yes | Yes | O | 100 | -40 | Yes | Yes | - |
| | Phenolic | 100 | -40 | Yes | Yes | - | 100 | -40 | Yes | Yes | - | 100 | -40 | Yes | Yes | - | 100 | -40 | Yes | Yes | - |
| | Polybutylene Terephthalate | 80 | -40 | Yes | Yes | O | 80 | -40 | Yes | Yes | O | - | - | - | - | - | 80 | -40 | Yes | Yes | - |
| | Polycarbonate | 100 | -40 | Yes | Yes | - | 100 | -40 | Yes | Yes | - | 60 | -40 | Yes | Yes | - | 100 | - | Yes | Yes | - |
| | Polyester Paint | 150 | -40 | Yes | Yes | O | 150 | -40 | Yes | Yes | O | 150 | -40 | Yes | Yes | - | 150 | -23 | Yes | Yes | - |
| | Polyester Powder Paint | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - |
| | Polyethylene | 80 | - | Yes | - | - | 80 | - | Yes | - | O | - | - | - | - | - | 80 | - | Yes | - | - |
| | Polyphenylene Oxide | 80 | -40 | Yes | Yes | - | 80 | -40 | Yes | Yes | - | 80 | -40 | Yes | Yes | - | 80 | -40 | Yes | Yes | - |
| | Polypropylene | 80 | -40 | Yes | Yes | O,G | 80 | -40 | Yes | Yes | O,G | 80 | -40 | Yes | Yes | O | 80 | - | Yes | - | - |
| Polystyrene | 80 | -40 | Yes | Yes | O | 80 | -40 | Yes | Yes | O | 80 | -40 | Yes | Yes | - | 80 | -40 | Yes | Yes | - | |
| Polyurethane (Urethane) Powder Paint | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | |
| Polyvinyl Chloride (PVC) | 80 | -40 | Yes | Yes | - | 80 | -40 | Yes | Yes | - | - | - | - | - | - | 80 | - | Yes | - | - | |
| Porcelain | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | O,G | - | - | - | - | - | 150 | -40 | Yes | Yes | - | |
| Stainless Steel | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | - | 150 | -40 | Yes | Yes | - | |
| Unsaturated Thermoset Polyester | 100 | -40 | Yes | Yes | O,G | 100 | -40 | Yes | Yes | O,G | 150 | -40 | Yes | Yes | - | 100 | -23 | Yes | - | - | |
| UL/c-UL/CSA | Electrostatic Coated Metal A, B, C, D | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - |
| | Metals | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - | 150 | - | Yes | Yes | - |
| | Plastic Group 1 | 100 | - | Yes | Yes | - | 100 | - | Yes | Yes | - | 100 | - | Yes | Yes | - | 100 | - | Yes | Yes | - |
| | Plastic Group II, III, IV, V, VI, VII, VIII | 80 | - | Yes | Yes | - | 80 | - | Yes | Yes | - | 80 | - | Yes | Yes | - | 80 | - | Yes | Yes | - |

- (dash) = not tested

Polyester - UL Conditions

| | 77921: 2 Mil Clear PET TC/S8025/50#SCK | | | | | |
|---------------------------------|---|------------|------------|------------|-------------|-------------|
| | Surfaces | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. |
| UL - Recognition | Acrylic | 60 | -40 | Yes | Yes | - |
| | Acrylic Paint | 150 | -40 | Yes | Yes | O |
| | Acrylic Powder Paint | | | | | |
| | Acrylonitrile Butadiene Styrene | 80 | -40 | Yes | Yes | O, G |
| | Alkyd Paint | 150 | -40 | Yes | Yes | O |
| | Alkyd Painted Plastic | 80 | -40 | Yes | Yes | - |
| | Aluminum | 150 | -40 | Yes | Yes | O, G |
| | Anodized Aluminum | 150 | -40 | Yes | Yes | O, G |
| | Chromate Treated Metal | 150 | -40 | Yes | Yes | - |
| | Epoxy | 80 | -40 | Yes | Yes | - |
| | Epoxy Paint | 150 | -40 | Yes | Yes | - |
| | Epoxy Powder Paint | 150 | -40 | Yes | Yes | O |
| | Galvanized Steel | 150 | -40 | Yes | Yes | - |
| | Melamine | 100 | -40 | Yes | Yes | - |
| | Nylon | 100 | -40 | Yes | Yes | O, G |
| | Phenolic | 100 | -40 | Yes | Yes | - |
| | Polybutylene Terephthalate | 80 | -40 | Yes | Yes | O |
| | Polycarbonate | 100 | -40 | Yes | Yes | - |
| | Polyester Paint | 150 | -40 | Yes | Yes | O |
| | Polyester Powder Paint | 150 | -40 | Yes | Yes | - |
| | Polyethylene | 80 | - | Yes | No | - |
| | Polyethylene - High Density | 80 | -40 | Yes | Yes | O, G |
| | Polyethylene Terephthalate | 80 | -40 | Yes | Yes | - |
| | Polyphenylene Oxide | 80 | -40 | Yes | Yes | - |
| | Polyphenylene Sulfide | 80 | -40 | Yes | Yes | - |
| | Polypropylene | 80 | -40 | Yes | Yes | O |
| | Polystyrene | 80 | -40 | Yes | Yes | - |
| | Polyurethane (Urethane) Powder Paint | 150 | -40 | Yes | Yes | - |
| Polyvinyl Chloride (PVC) | 80 | -40 | Yes | Yes | - | |
| Porcelain | 150 | -40 | Yes | Yes | - | |
| Stainless Steel | 150 | -40 | Yes | Yes | O, G | |
| Unsaturated Thermoset Polyester | 100 | -40 | Yes | Yes | O | |
| UL/c-UL/CSA | Electrostatic Coated Metal A, B, C, D | 150 | - | Yes | Yes | - |
| | Metals | 150 | - | Yes | Yes | - |
| | Plastic Group 1 | 100 | - | Yes | Yes | - |
| | Plastic Group II, III, IV, V, VI, VII, VIII | 80 | - | Yes | Yes | - |

- (dash) = not tested

Notes:
 O - Occasional exposure to lubricating oil
 G - Occasional exposure to gasoline splashing
 DD - Occasional exposure to dish detergent
 DL - Occasional exposure to laundry detergent

Step 2

Cross reference with application's surface and UL/c-UL/CSA conditions

Polypropylene - UL Conditions

| | | 78401: 3 Mil Synthetic Paper/S8001/50#SCK | | | | 78403: 2.3 Mil White BOPP TC/S8001/50#SCK | | | |
|---|---|---|------------|------------|-------------------------|---|------------|------------|-------------------------|
| Surfaces | | Max Temp C | Min Temp C | Indoor Use | Outdoor Use w/ Overlam* | Max Temp C | Min Temp C | Indoor Use | Outdoor Use w/ Overlam* |
| UL-Recognition | Acrylic Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Acrylic Plastic | 60 | -40 | Yes | - | 60 | -40 | Yes | - |
| | Acrylic Powder Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Acrylonitrile Butadiene Styrene | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Alkyd Enamel Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Aluminum | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Anodized Aluminum | 80 | -40 | Yes | - | | | | |
| | Ethylene Vinyl Acetate | 80 | -40 | Yes | - | 60 | -40 | Yes | - |
| | Epoxy Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Epoxy Powder Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Galvanized Steel | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Glass | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Melamine | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Nylon | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Phenolic | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Polybutylene Terephthalate | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Polycarbonate | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Polyester Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| | Polyester Powder Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | Yes |
| | Polyethylene Terephthalate | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Polyphenylene Oxide | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Polypropylene | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Polystyrene | 80 | -40 | Yes | - | 80 | -40 | Yes | - |
| | Polyurethane Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - |
| Polyurethane (Urethane) Powder Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | Yes | |
| Polyvinyl Chloride | 80 | -40 | Yes | - | 80 | -40 | Yes | - | |
| Porcelain | 80 | -40 | Yes | - | 100 | -40 | Yes | - | |
| Southern Yellow Pine | - | - | - | - | 100 | -40 | Yes | - | |
| Stainless Steel | 80 | -40 | Yes | - | 100 | -40 | Yes | Yes | |
| Tedlar (Polyvinyl Fluoride) | 80 | -40 | Yes | - | 100 | -40 | Yes | - | |
| Unsaturated Thermoset Polyester Urethane Powder Paint | 80 | -40 | Yes | - | 100 | -40 | Yes | - | |
| UL/c-UL/CSA | Metals | - | - | - | - | 100 | - | - | - |
| | Electrostatic Coated Metal A, B, C, D | - | - | - | - | 100 | - | - | - |
| | Plastic Group 1 | - | - | - | - | 80 | - | - | - |
| | Plastic Group II, III, IV, V, VI, VII, VIII | - | - | - | - | 80 | - | - | - |
| | | | | | | | | | |

- (dash) = not tested

Vinyl - UL Conditions

Notes:
 O - Occasional exposure to lubricating oil
 G - Occasional exposure to gasoline splashing
 DD - Occasional exposure to dish detergent
 F1 - Occasional exposure to fuel oil 1
 F2 - Occasional exposure to fuel oil 2
 K - Occasional exposure to kerosene
 C - Occasional exposure to cooking oil

79648: 4 Mil White Flex Vinyl TCD/S8025/50#SCK

| Surfaces | | Max Temp C | Min Temp C | Indoor Use | Outdoor Use | Add'l Cond. |
|---|------------------------------------|------------|------------|------------|---------------------|---------------------|
| UL-Recognition | Acrylic Paint | 100 | -40 | Yes | Yes | O, DL, F1, F2, K |
| | Acrylic Plastic | 80 | -40 | Yes | Yes | - |
| | Acrylic Powder Paint | 100 | -40 | Yes | Yes | - |
| | Acrylonitrile Butadiene Styrene | 80 | -40 | Yes | Yes | O, DL, F1, F2, K, C |
| | Alkyd Enamel Paint | | | | | |
| | Aluminum | 100 | -40 | Yes | Yes | O, DL, F1, F2, K, C |
| | Anodized Aluminum | | | | | |
| | Ethylene Vinyl Acetate | | | | | |
| | Epoxy Paint | 100 | -40 | Yes | Yes | O, DL |
| | Epoxy Powder Paint | 100 | -40 | Yes | Yes | O, F1, F2, K |
| | Epoxy Powder Paint (Textured) | 100 | -40 | Yes | Yes | DL |
| | Galvanized Steel | 100 | -40 | Yes | Yes | O, DL, F1, F2, K, C |
| | Glass | 100 | -40 | Yes | Yes | - |
| | Melamine | 100 | -40 | Yes | Yes | O, DL |
| | Nylon | 100 | -40 | Yes | Yes | O, DL, F1, F2, K |
| | Phenolic | 100 | -40 | Yes | Yes | - |
| | Polybutylene Terephthalate | | | | | |
| | Polycarbonate | 100 | -40 | Yes | Yes | - |
| | Polyester Paint | 100 | -40 | Yes | Yes | O, DL, F1, F2, K |
| | Polyester Powder Paint | 100 | -40 | Yes | Yes | |
| | Polyethylene Terephthalate | | | | | |
| | Polyphenylene Oxide | 80 | -40 | Yes | Yes | O, F1, F2, K |
| | Polypropylene | 80 | -40 | Yes | Yes | O, DL, F1, F2, K |
| | Polystyrene | 80 | -40 | Yes | Yes | O, DL, F1, F2, K |
| Polyurethane Paint | | | | | | |
| Polyurethane (Urethane) Powder Paint | 100 | -40 | Yes | Yes | | |
| Polyvinyl Chloride | 80 | -40 | Yes | Yes | - | |
| Porcelain | 100 | -40 | Yes | Yes | O, DL, F1, F2, K | |
| Southern Yellow Pine | | | | | | |
| Stainless Steel | 100 | -40 | Yes | Yes | O, DL, F1, F2, K, C | |
| Tedlar (Polyvinyl Fluoride) | | | | | | |
| Unsaturated Thermoset Polyester Urethane Powder Paint | 100 | -40 | Yes | Yes | O, F1, F2, K, C | |
| UL/c-UL/CSA | Metals | 100 | | Yes | Yes | O, DL, F1, F2, K, C |
| | Electrostatic Coated Metal A, B, D | 100 | | Yes | Yes | |
| | Electrostatic Coated Metal C | 100 | | Yes | Yes | O, F1, F2, K |
| | Plastic Group 1 | 100 | | Yes | Yes | |
| | Plastic Group 2 | 80 | | Yes | Yes | O, F1, F2, K |
| | Plastic Group 3 | 80 | | Yes | No | O, DL |
| | Plastic Group 4 | 80 | | Yes | No | O, DL, F1, F2, K |
| | Plastic Group 5 | 80 | | Yes | No | O, DL, F1, F2, K, C |
| Plastic Group 6 | 80 | | Yes | No | O, DL, F1, F2, K, C | |
| Plastic Group 7 | 80 | | Yes | No | | |
| Plastic Group 8 | 80 | | Yes | No | O, F1, F2, K | |

- (dash) = not tested

Step 3

Select ink system

Without Overlaminates

Customer-Ready™ Durables Portfolio

Customer-Ready™ Durables Portfolio

| | | | | | | | |
|--|---|--|--|---|---|--|--|
| 78401: 3 Mil Synthetic Paper/S8001/50#SCK | 78403: 2.3 Mil White BOPP TC/S8001 | 78385: 2 Mil White PET TC/S8001/50#SCK | 78387: 2 Mil Matte Chrome PET TC/S8001/50#SCK | 77921: 2 Mil Clear PET TC/S8025/50#SCK | 79648: 4 Mil White Flex Vinyl TCD S8025 50#SCK | 79534: 2 Mil Matte Chrome TC/S8049/50#SCK | 78981: 2 Mil White PET TCD/S8025/50#SCK |
| 77920: 2 Mil White PET TC/S8025/50#SCK | | 77922: 2 Mil Matte Chrome PET TC/S8025/50#SCK | | | | | |

| Manufacturer | Inks | Indoor | | Outdoor | | Indoor | | Outdoor | | Indoor | | Outdoor | | Indoor | | Outdoor | |
|--------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|
| | | Indoor | Indoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor |
| EFI Jettron | 4000 Series UV Inkjet | All Colors | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL, RD | All Colors | BK, BL | All Colors | All Colors | | |
| EFI Jettron | 4950 Series LED Inkjet | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK | All Colors | All Colors | | |
| Siegwerk EIC | DR III FR | All Colors | All Colors | All Colors | BK, BL | All Colors | BK, BL, RD | All Colors | BK, BL | BK, BL | BK, BL | - | - | BK, BL, YL | BK, BL, YL | | |
| Mark Andy | Digital Series HD | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK | All Colors | All Colors | | |
| Siegwerk EIC | Films III | - | - | BK, BL, RD | BK, BL | BK, BL, RD | BK, BL | All Colors | All Colors | All Colors | All Colors | - | - | All Colors | BK | | |
| Durst | TAU 330 HD | - | - | - | - | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | - | - | | |
| Flint | Hydrofilm ACE™ | All Colors | All Colors | BK, BL, RD | BK, BL, RD | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL, RD | BK, BL, RD | - | - | All Colors | All Colors | |
| Flint | Flexocure FORCE™ | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | All Colors | All Colors | |
| ACTEGA WIT | VersiFilm Plus ULF | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL, RD | BK, BL | All Colors | All Colors | All Colors | All Colors | |
| ACTEGA WIT | PharmaFlex UV | All Colors | All Colors | BK, BL, RD | BK, BL, RD | BK, BL, RD | BK, BL, RD | All Colors | All Colors | All Colors | BK, BL | BK, BL, RD | BK, BL, RD | All Colors | All Colors | | |
| Mark Andy | Digital Series Ink | All Colors | All Colors | All Colors | - | All Colors | All Colors | - | - | - | - | - | All Colors | - | - | - | - |
| Wikoff | PolyTech XR | All Colors | All Colors | All Colors | BK | All Colors | BK, RD | All Colors | BK, BL, RD | BK, BL, RD | BK, BL, RD | BK, BL, RD | - | - | - | - | - |
| Wikoff | PhotoFlex | | All Colors | All Colors | BK | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | All Colors | - | - | - | - | - | - |
| Mark Andy | Digital Series HD | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK | - | - | - | - |
| Mark Andy | Digital Series iQ | All Colors | All Colors | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD | - | - | - | - |
| Domino | UV 90 | All Colors | All Colors | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD | - | - | - | - |
| Domino | N730i | All Colors | All Colors | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD | - | - | - | - |
| Durst | Tau 330 | All Colors | All Colors | All Colors | - | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | All Colors | All Colors | | |
| Actega | ACTExact | All Colors | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL | BK, BL, RD | BK, BL, RD | | |
| Siegwerk | SICURA ORBIS LEDtec | All Colors | All Colors | All Colors | BK, BL | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | All Colors | All Colors | BK, BL | All Colors | All Colors | | |
| Xeikon | PantherCure UV | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD, YL | | |
| Durst | Tau 330 RSC | All Colors | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL | - | - | - | - |
| Screen USA | L350UV+ | All Colors | All Colors | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | All Colors | All Colors | BK, BL, RD | - | - | - | - |
| Dantex | PicoJet | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | - | - | - |
| Dantex | PicoColour | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | - | - | - |
| Mouvvent | UV Ink | All Colors | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | - | - | - | - | - | - | - | - |

| Manufacturer | Inks | Indoor | | Outdoor | | Indoor | | Outdoor | | Indoor | | Outdoor | | Indoor | | Outdoor | |
|--------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|---------|
| | | Indoor | Indoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor | Indoor | Outdoor |
| EFI Jettron | 4000 Series UV Inkjet | - | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL, RD | All Colors | All Colors | All Colors | All Colors | | |
| EFI Jettron | 4950 Series LED Inkjet | | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | | |
| Siegwerk EIC | DR III FR | - | | No Pass | No Pass | as - s | -ss | - | - | BK, BL | BK, BL | BK, BL, RD | BK, BL, RD | BK, BL, YL | BK, BL, YL | | |
| Durst | TAU 330 HD | | | No Pass | No Pass | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | | | | |
| Siegwerk EIC | Films III | - | - | - | - | - | - | - | - | BK, BL, RD | BK, BL | BK, BL, RD | BK, BL | BK, BL, YL | All Colors | | |
| Flint | Hydrofilm ACE™ | - | | No Pass | No Pass | No P-ass | No P-ass | - | - | BK, BL, RD | BK, BL, RD | BK, BL, RD | BK, BL, RD | | | | |
| Flint | Flexocure FORCE™ | - | | - | - | - | - | All Colors | BK, BL, YL | All Colors | All Colors | All Colors | All Colors | | | | |
| ACTEGA WIT | VersiFilm Plus ULF | - | | No Pass | No Pass | No-ss | No P-ass | - | - | BK, RD | BK | BK, BL, RD | BK, BL, RD | All Colors | All Colors | | |
| ACTEGA WIT | Pharmaflex UV | All Colors | All Colors | BK, BL | BK, BL | BK, BL | BK, BL | All Colors | All Colors | BK, BL | BK, BL | All Colors | All Colors | All Colors | All Colors | | |
| Mark Andy | Digital Series Ink | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | - | - | All Colors | All Colors | | | | |
| Mark Andy | Digital Series HD | - | - | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | | | | |
| Mark Andy | Digital Series iQ | - | - | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD | - | - | | |
| Domino | UV 90 | - | - | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | | | | |
| Domino | N730i | - | - | All Colors | BK, RD | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD | - | - | | |
| Wikoff | PolyTech XR | | | - | - | - | - | - | - | BK, BL, RD | BK, BL, RD | All Colors | All Colors | | | | |
| Wikoff | PhotoFlex | | | - | - | All Colors | BK, BL, RD | All Colors | BK, BL, YL | All Colors | All Colors | All Colors | All Colors | | | | |
| Durst | Tau 330 | | | All Colors | All Colors | All Colors | All Colors | - | - | - | - | All Colors | All Colors | All Colors | All Colors | | |
| Actega | ACTExact | - | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | all colors | All Colors | All Colors | All Colors | BK, BL | BK, BL, RD | BK, BL, RD | | |
| Siegwerk | SICURA ORBIS LEDtec | - | All Colors | All Colors | BK, BL | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | All Colors | All Colors | BK, BL | All Colors | All Colors | | |
| Xeikon | PantherCure UV | - | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, RD, YL | | |
| Durst | Tau 330 RSC | - | All Colors | All Colors | BK, BL | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | BK, BL | - | - | | |
| Screen USA | L350UV+ | - | All Colors | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | BK, BL, RD | All Colors | All Colors | All Colors | BK, BL, RD | - | - | | |
| Dantex | PicoJet | - | All Colors | All Colors | BK | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | All Colors | - | - | - | | |
| Dantex | PicoColour | - | All Colors | All Colors | BK, BL, YL | BK | BK, BL, YL | BK, BL, YL | BK, BL, YL | All Colors | All Colors | All Colors | All Colors | - | - | | |
| Mouvvent | UV Ink | - | All Colors | - | - | All Colors | All Colors | All Colors | All Colors | - | - | - | - | - | - | | |

*Thermal transfer ribbons were tested on Polyesters and Polypropylenes without an overlamine, - (dash) = not tested
BK: Black, BL: Blue, RD: Red, YL: Yellow

Step 4

Select thermal transfer ribbon

| | | | | | | | | | |
|---|--|---|---|--|--|---|---|--|---|
| 77920: 2 Mil White PET TC/S8025/50#SCK | 77922: 2 Mil Matte Chrome PET TC/S8025/50#SCK | 77921: 2 Mil Clear PET TC/S8025/50#SCK | 78385: 2 Mil White PET TC/S8001/50#SCK | 78401: 3 Mil Synthetic Paper/S8001/50#SCK (a) | 78403: 2.3 Mil White BOPP TC/S8001/50#SCK (b) | 77844: 1 Mil Clear Print-Treated PET/S8020/40#BG | 79453: 2 Mil White PET TC/S8049/50#SCK | 79534: 2 Mil Matte Chrome TC/S8049/50#SCK | 79648: 4 Mil White Flex Vinyl TCD S8025 50#SCK |
|---|--|---|---|--|--|---|---|--|---|

| Manufacturer | Ribbons | Ribbons | Ribbons | Ribbons | Ribbons |
|-----------------|--|---|--|--|---|
| Armor | AXR8, AXR600, AXR7+, AXR1 | AXR-7+ (a & b), AXR1 (b only) | AXR600, AXR 7+, AXR 8 | AXR600, AXR 7+, AXR 8, AXR1 | AXR 600, AXR 7+, AXR 8, AXR1 |
| Astro-Med | RF, RY, RAF Blue, R-5 | RF, RY, RAF Blue, R-5 | RY, R-5 | RF, RY | RF, RY |
| Coding Products | 5940, 5640 Blue, 5440 Red, 7996 | 7996 (b only) | 5940, 7996 | 5940, 5640 Blue, 5440 red | 5940, 7996 |
| DNP | R-300, R-510, R-510 Green, R-510 Red (indoor only), R-510 Blue, TR-4070, TR-6075, TR-6070, R-510HF, Signature Series Resin | R510 (a & b), TRX-55 (a & b) | R-300 | R-300, R-510, R-510 Green, R-510 Red, R-510 Blue, TR4070, TR6070, TR6075 | R300, R510, R510 HF, TR4070 |
| Datamax | SDR-A, SDR-D, SDR-5, SDR-6, SDR, SDR Millennium | | SDR, SDR Millennium, SDR-5, SDR-6, SDR-7, SDR-A, SDR-D | SDR, SDR Millennium, SDR-5, SDR-6, SDR-7, SDR-A, SDR-D | SDR, SDR-A, SDR-D |
| iimak | SP-330, SP-410, Prime Mark, SP575, SP-990, SH-36 | SP-330, SP-575 (b only), PM250 (a & b) | SP-330, SP-575 | SP-330, SP-575, Prime Mark, Prime Mark 255, DC-300/CD-305 (BK, BL, RD, YL), SP-990, SP-410 | SP-330, SP-575 |
| Intermec | TMX 3200, TMX 1500 | | TMX3200, TMX1500 | | |
| ITW | B324, B325, B813, B814 | B324 (a & b), B325, B813, B814 (b only) | B324, B325, B813, B814 | B324, B-128, B325 | B324, B325, B813, B814 |
| Kurz | K-300, K-500, K-501 | | K-500 | K-300, K-500, K-501 | |
| NCR | Promark 3, Pacesetter, Ultra V, Matrix Resin, Perma Max, K3 | | Promark 3, Pacesetter, Ultra V, Matrix Resin | Promark 3, Pacesetter, Ultra V, Matrix Resin, Perma Max | |
| Peak | Ultra Premium, Ultra Extreme | | Ultra Premium | Ultra Premium, Ultra Extreme | |
| Ricoh | B110C, B110CR, B120EC, B110CX | B110C (a & b) | B110C, B110CR, | B110C, B110CR, B120EC, B110CX | B110C, B110CR |
| Sato | Premier 1 | | Premier 1 | Premier 1 | Premier 1 |
| Zebra | 5095, 5100, 5463, Z-1400, Z-3100, Z-4100, 5555 | | 5095, 5175, 5100, 5555, Z-4100 | 5095, 5175, 5100, 5555, Z3100, Z-4100 | 5095, 5100 |
| Fujicopian | FTX 303, FTX 306, FTX 308, FTX 100, FTX 303N, FTX 304, TRX-21, TTM-164, TTM-46 | | | FTX 303, FTX 306, FTX 308, FTX 100, FTX 303N, FTX 304, TRX-21, TTM-164, TTM-46 | FTX 303, FTX 303N, FTX 304, TTM-164, TTM-46 |

| Manufacturer | Ribbons | Ribbons | Ribbons | Ribbons | Ribbons |
|-----------------|---|--|--|--|---|
| Armor | AXR8, AXR600, AXR-7+, AXR1 | AXR-7+ (b only), ARX1 (b only) | AXR8, AXR600, AXR-7+ | AXR8, AXR600, AXR-7+, AXR1 | AXR 600, AXR 7+, AXR 8, AXR1 |
| Astro-Med | RY, RAF Blue | | RY | RY, RAF Blue | RY |
| Coding Products | 5640 Blue, 5440 Red, 7996 | | 5940, 7996 | 5640 Blue, 5440 Red | 5940, 7996 |
| DNP | R-300, R-510, R-510-HF R-510 Green, R-510 Red (indoor only), R-510 Blue, TR-4070, TR-6075, TR-6070, Signature Series™ Resin | R-510 (b only) | R-300 | R-300, R-510, R-510 Green, R-510 Red, R-510 Blue, TR4070, TR6070, TR6075 | R300, R510, R510 HF, TR4070 |
| Datamax | SDR-A, SDR-D, SDR-5, SDR-6, SDR, SDR Millennium | | SDR-A, SDR-D, SDR-6, SDR, SDR-7, SDR-4 | SDR-A, SDR-D, SDR-6, SDR, SDR-7, SDR-5, SDR Millennium | SDR, SDR-A SDR-D |
| iimak | Primemark, SP-575 | SP-330, SP-575 (b only), PM250 (a & b) | SP-330, SP-575 | DC-300/CD-305 (BK, BL, RD, YL), SP-990 | SP-330, SP-575 |
| ITW | B325, B813 | B324, B813, B814 (b only) | R-90, B324, B813, B814 | R-90, B325 | B324, B325, B813, B814 |
| Kurz | | | K-500 | K-500 | |
| NCR | Promark 3, Pacesetter, Ultra V, Matrix Resin, Perma Max, K3 | | Promark 3 | Promark 3 | |
| Peak | Ultra Premium, Ultra Extreme | | Ultra Premium | Ultra Premium | |
| Ricoh | B110C, B110CR, B1230EC, B110CX | B110C (b only) | B110C | B110C, B110CR | B110C, B110CR |
| Sato | Premier 1 | | Premier 1 | Premier 1 | Premier 1 |
| Zebra | 5095, 5100, 5463, Z-1400, Z-3100, Z-4100, 5555 | | Z-4100, 5095 | 5100 | 5095, 5100 |
| Fujicopian | FTX 303, FTX 306, FTX 308, FTX 100, FTX 303N, FTX 304, TRX-21, TTM-164, TTM-46 | | | FTX 306, FTX 308, FTX 303, FTX 303N, FTX 304, TTM-164, TTM-46 | FTX 303, FTX 303N, FTX 304, TTM-164, TTM-46 |

*Thermal transfer ribbons were tested on Polyesters and Polypropylenes without an overlamine, - (dash) = not tested

Step 5

Submit label adoption request with Avery Dennison file number and product description to UL/CSA.



With the UL/CSA's flat fee pricing, a simple product adoption is more economical than ever. When specific minimum purchase conditions are met, we'll even reimburse your company for the basic adoption fee - reducing your transfer cost to zero. Need an additional surface or ink? We can guide you through the process.

Contact UL/CSA to initiate a label adoption project. If necessary, contact your Avery Dennison representative for assistance.

label.averydennison.com

ADV# 292 03/2023

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