



➤ PRODUCT SELECTION GUIDE

RUTLAND™

Plastisol Screen Printing Ink





Screen printers and brand owners face ever-changing market requirements, so it is imperative to have access to a portfolio of inks that set them up for success. Rutland™ offers an extensive range of innovative and inspiring non-phthalate plastisol screen printing inks and high-opacity mixing systems, providing a set of tools to meet challenging market needs.

QUALITY AND CONSISTENCY

Rutland™ products are produced to specific standards, with strict adherence to process, procedures, and documented compliance. This exacting process ensures our products are manufactured uniformly for every batch, creating consistent quality.

Rutland™ is certified to **ZDHC Conformance Level 3** with **ECO PASSPORT by OEKO-TEX**. To learn more about compliance standards, please contact Avient Specialty Inks.*

ROADMAP TO
ZERO

OEKO-TEX®
CONFIDENCE IN TEXTILES
ECO PASSPORT 

PROFESSIONAL SUPPORT NETWORK

Knowledgeable and Highly Experienced Team

Our Avient Specialty Inks sales team have many years of experience in the screen printing industry to help you innovate and succeed, provide troubleshooting support, and solve technical problems that you may encounter in your printing production environment. Our customer service team is always ready to support ordering and fulfillment requests, ensuring a seamless customer experience.

Broad Distributor Network

Our wide network of distributors are located globally to ensure Avient Specialty Inks products and services are available at your location and at your convenience.

Technical Expertise

We strive to help our customers stay ahead of marketplace trends and demands. Our qualified and experienced Avient Specialty Inks technical team are constantly looking at ways to improve performance of our products and to develop new technologies to meet emerging demands.


* Rutland ECO PASSPORT
certification numbers:
21.0.85399
21.0.83009

WHITE PLASTISOL INKS


Cotton White Inks

- **Select Cotton White (EH9060)** is an underlay ink that offers great coverage on dark garments. The low tack formula allows printing through finer mesh counts without the need for a viscosity modifier. This white ink has great fiber mat down with a creamy consistency that produces soft prints with low after flash tack.
- **Street Fighter Cotton White (SF2) (EH9072)** is a day-to-day, multi-purpose white ink with exceptional brightness, satin hand, and matte finish. This cotton white ink has excellent opacity, great fiber mat down, creamy consistency, with low after-flash tack and great printability.
- **Silky Cotton White (EH9020)** is created for maximum smoothness and opacity on cotton fabrics. This white ink has excellent fiber mat down, is creamy, fast flashing, and has a low after-flash tack. Silky offers a boutique style matte gloss and satin finish with a high-end soft hand.
-  **Chill Low Cure (LC) Cotton White (LC9802)** is an optically brightened, high-coverage ink recommended for vectors and halftones. Chill LC is fast flashing and holds fine detail while offering superior printability on both manual and automatic presses. This ink offers excellent hand and fiber mat down while providing smooth printing as a stand alone or top white product.

Poly-Cotton Blend White Inks

- **Street Fighter LB White (SF2) (EL9073)** is an extremely popular, multi-purpose low bleed ink with excellent brightness, satin hand, and matte finish. This ink offers great printability and coverage, while performing with a fast flash and great fiber mat down.
- **Premier LB White (EL9065)** is a high-opacity LB white developed for boutique styles and soft prints on thin, lightweight contemporary blends where dye blocking is not a concern. This minimal puff, low bleed ink is excellent for high output production floors and produces great results on an automatic press.
- **Snap White (EL9240)** is a durable, bright, opaque ink for ribbed and heavier fabrics. This popular low bleed ink has been developed to improve bridging properties in all types of mesh counts. Snap White has a very soft hand, a heavy body, low after-flash tack, great mat down and a matte finish.
-  **Chill Low Cure (LC) Low Bleed (LB) Tidy White (LC9804)** is a high-opacity, soft, creamy low bleed and low cure white ink that delivers superior printability over a range of garments. This ink has the opacity and brightness to perform admirably in vector stand-alone white graphics, while also having the ability to hold detail for fine mesh halftone graphics.

Polyester White Inks

- **Super Poly Plus White (EL9760)** is a premium non-phthalate plastisol ink created to print onto 100% polyester and polyester blended fabrics. This best-in-class poly white ink has the highest bleed resistance rating in the Rutland portfolio and performs with superior printability, coverage, and quick shear.
-  **Chill Low Cure (LC) Poly White (LC9800)** is a flexible temperature cure ink for 100% poly fabrics. This ink allows for good dye migration control and lower energy consumption rates, even when printing on fabrics that exhibit unstable dyes. Chill Poly White shears down to a very creamy body and produces a bright, opaque, matte finish with soft hand and terrific fiber control.

Flexible Cure White Inks

- Inks and additives in Avient's Reduced Energy Use portfolio are attributed with reducing energy consumption from typical alternatives. Reduced energy use is commonly associated with faster cycle times, decreased carbon emissions, and lower energy costs.

Avient offers a variety of low, or flexible, cure inks that not only reduce energy consumption, but also minimize dye-migration and prevent shrinkage of heat-sensitive fabrics. These inks cure at temperatures as low as 270°F (132°C), as opposed to the standard 320°F (160°C) cure temperature of standard inks.
- Rutland Chill LC Cotton White, Chill LC LB Tidy White, and Chill LC Poly White are classified as flexible cure inks due to their reduced energy use capabilities.

PRINT GALLERY



Sustainability Spotlight



Reduced Energy Use

WHITE PLASTISOL INKS

Category	Cotton White Inks				Poly-Cotton Blends				Polyester White Inks	
Product Name	Select Cotton White	Street Fighter Cotton White (SF2)	Silky Cotton White	 Chill LC Cotton White	Street Fighter LB White (SF2)	Premier LB White	Snap White	 Chill LC LB Tidy White	Super Poly Plus White	 Chill LC Poly White
Code	EH9060	EH9072	EH9020	LC9802	EL9073	EL9065	EL9240	LC9804	EL9760	LC9800
Plastisol type	Standard cure	Standard cure	Standard cure	Flexible cure	Standard cure	Standard cure	Standard cure	Flexible cure	Standard cure	Flexible cure
Colors	White	White	White	White	White	White	White	White	White	White
Substrates										
Cotton	Excellent	Excellent	Excellent	Excellent	Good (1)	Good (1)	Good (1)	Good (1)	Not recommended	Not recommended
Cotton/Polyeseter	Not recommended	Not recommended	Not recommended	Not recommended	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
100% Polyester	Not recommended	Not recommended	Not recommended	Not recommended	Good(2)	Good(2)	Good(2)	Good(3)	Excellent(2)	Excellent(3)
Athletic Nylon Mesh	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
Tightly Woven Denier Cloths	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
Properties and Performance										
Opacity	Good	Better	Best	Best	Best	Better	Best	Best	Best	Best
Bleed Resistance	N/A	N/A	N/A	N/A	Best	Better	Best	Best	Best	Best
Hand	Good	Better	Best	Best	Better	Good	Better	Better	Best	Best
Wet-on-Wet Capability	No	No	No	No	No	No	No	No	No	No
Application										
Mesh	86–305 t/in	86–320 t/in	86–305 t/in	86–305 t/in	86–230 t/in	86–230 t/in	86–200 t/in	86–305 t/in	86–156 t/in	86–230 t/in
Flash	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	220°F (105°C)	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	220°F (105°C)	140–150°F (60–65°C) on preheated pallets	150°F (65°C)
Stencil	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Cure Temperature	320°F (160°C)	320°F (160°C)	320°F (160°C)	270–320°F (132–160°C)	320°F (160°C)	320°F (160°C)	320°F (160°C)	270–320°F (132–160°C)	320°F (160°C)	270°–320°F (132°–160°C)
Wash	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Non-phthalate press wash	Standard plastisol cleaners, press wash, or ink degradant	Non-phthalate press wash
Additives										
Viscosity Reducer	K2910 Viscosity Buster	K2910 Viscosity Buster	K2910 Viscosity Buster	K2912 Viscosity Buster LC	K2910 Viscosity Buster	K2910 Viscosity Buster	K2910 Viscosity Buster	K2912 Viscosity Buster LC	K2910 Viscosity Buster	K2912 Viscosity Buster LC
Bonding Agent	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst
Extender	K2922 Soft Hand Clear/ K2920 Finesse	K2922 Soft Hand Clear/ K2920 Finesse	K2922 Soft Hand Clear/ K2920 Finesse	LC0000 Chill Relax Extender	Not recommended	Not recommended	Not recommended	Not recommended	Not recommended	Not recommended

(1) Perform all tests to avoid ghosting in cotton fabrics

(2) For challenging fabrics a bleed blocking underbase such as ES0266 NPT Barrier Base is required

(3) For challenging fabrics a bleed blocking underbase such as LC0550 Chill Barrier Grey is required

STANDARD COLOR INKS

Black Inks

- **LX Black (EH8014)** is a press-ready standard black plastisol ink.
- **Solid Black (EH8033)** is a press-ready premium low gloss black plastisol ink with improved fiber mat down.
- **Matte Black (EH8099)** is a press-ready plastisol ink that does not “grey out” with repeated washes. This ink has a contemporary matte finish that not only feels and looks more desirable—it will flash slightly faster than a glossy black ink.
- 💡 • **Chill LC Black (LC8033)** is a press-ready, plastisol ink with a wide cure temperature range for printing on cotton, blends, and 100% polyester fabrics.

Standard Colors

- 💡 • **Chill Cotton (LC-0000)** colors consist of 17 flexible cure inks. These inks offer vibrant and opaque colors with excellent stretch and soft hand feel.
- **EL Series (EL-0000)** colors include 17 low bleed inks formulated to produce high opacity prints on cotton and poly blends.

Mixing Systems

- **M3 Ink System (M3-0000)** is an easy to use, highly accurate color matching ink mixing system. This system is much more forgiving than a PC based product, as it does not require as accurate of measure or base and additives to complete a formula. Most formulas are combinations of M3 colors.
- **C3 Ink System (C3-0000)** is a single pigmented color system with built in binders. Rutland offers a full range of additives to make this versatile and adaptive system a go-to for high output shops with strict color matching requirements, as well as smaller, custom shops looking to distinguish themselves from competitors.
- Rutland mixing inks are available for use on IMS3.0, a proprietary color formulation software from Avient Specialty Inks. Offering tools for color creation and standardizing, IMS manages daily maneuvers in a highly functional ink room by providing color management and communication agility.

Flexible Cure Standard Colors

- Inks and additives in Avient’s Reduced Energy Use portfolio are attributed with reducing energy consumption from typical alternatives. Reduced energy use is commonly associated with faster cycle times, decreased carbon emissions, and lower energy costs.
- Avient offers a variety of low, or flexible, cure inks that not only reduce energy consumption, but also minimize dye-migration and prevent shrinkage of heat-sensitive fabrics. These inks cure at temperatures as low as 270°F (132°C), as opposed to the standard 320°F (160°C) cure temperature of standard inks.
- **Rutland Chill LC Black and Chill Cotton Standard Colors** are classified as flexible cure inks due to their reduced energy use capabilities.

PRINT GALLERY





Sustainability Spotlight



Reduced Energy Use

STANDARD COLOR INKS

Category	Black Inks				Standard Colors		Mixing Systems	
Product Name	LX Black	Solid Black	Matte Black	 Chill LC Black	 Chill Cotton	EL Series	M3 Ink System	C3 Ink System
Code	EH8014	EH8033	EH8099	LC8033	LC-0000	EL-0000	M3-0000	C3-0000
Plastisol type	Standard cure	Standard cure	Standard cure	Flexible cure	Flexible cure	Standard cure	Standard cure	Standard cure
Colors	Black	Black	Black	Black	17 colors	17 colors	14 colors	17 pigment concentrate
Substrates								
Cotton	Excellent	Excellent	Excellent	Excellent	Excellent	Not recommended	Excellent	Excellent
Cotton/Polyeseter	Excellent	Excellent	Excellent	Excellent	Over a Chill LC LB Tidy White	Excellent	Over a LB White	Over a LB White
100% Polyester	Excellent	Excellent	Excellent	Excellent	Over a Chill LC Poly White	Excellent	Over Super Poly Plus White	Over Super Poly Plus White
Athletic Nylon Mesh	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
Tightly Woven Denier Cloths	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
Properties and Performance								
Opacity	Good	Excellent	Excellent	Good–Excellent	Excellent	Excellent	Best	Best
Bleed Resistance	N/A	N/A	N/A	N/A	N/A	Good	Best	Best
Hand	Better	Better	Better	Better	Better	Better	Best	Best
Wet-on-Wet Capability	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Application								
Mesh	86-230 t/in	86–230 t/in	86–230 t/in	110-305 t/in	86–230 t/in	86–230 t/in	86–305 t/in	86–305 t/in
Flash	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	220°F (105°C)	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets
Stencil	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Cure Temperature	320°F (160°C)	320°F (160°C)	320°F (160°C)	270–320°F (132–160°C)	270–320°F (132–160°C)	320°F (160°C)	320°F (160°C)	320°F (160°C)
Wash	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant
Additives								
Viscosity Reducer	K2910 Viscosity Buster	K2910 Viscosity Buster	K2910 Viscosity Buster	K2912 Viscosity Buster LC	K2912 Viscosity Buster LC	K2910 Viscosity Buster	K2910 Viscosity Buster	K2910 Viscosity Buster
Bonding Agent	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst
Extender	ES0250 NPT Chino Base/Reducer	K2922 Soft Hand Clear/ K2920 Finesse	K2922 Soft Hand Clear/ K2920 Finesse	LC0000 Chill Relax Extender	LC0000 Chill Relax Extender	Not recommended	M30063 NPT Natural Base M3	N/A

BASES AND OTHERS

- **Barriers:** Bases created to control dye bleed in difficult garments, such as blends, 100% polyester, and sublimated fabrics.
- **Mixing Bases:** Bases created to be used with our Rutland C3 pigments, available in standard cure and flexible cure chemistries.
- **Extenders:** Clear bases created to be mixed with Avient’s ready-for-use inks in light color garments.

Bleed Blockers

- **NPT Barrier Base (ES0266)** is a high-opacity, low bleed under base that has been formulated for 100% polyester. This base prints with a satin finish and is grey in color, similar to Pantone 430C. This product also works to block fabric color migration when printing a clear top coat over a white.

- 💡 • **Chill LC Barrier Grey (LC0550)** is an under base product developed to block migration of unstable garment dyes on poorly dyed fabrics that are dye sublimated with Camo and Digi Camo patterns. Chill products are low cure for printing on polyester garments produced with unstable dyes or are prone to shrinkage when exposed to heat.

Mixing Bases

- **NPT VO Base (EH0540)** is a press-ready, non-phthalate plastisol base for mixing colors using C3 NPT Color Boosters. NPT VO Base prints on 100% cotton or over a NPT low bleed underlay when printing on poly/cotton blends.
- **NPT HO Matte Base (EH0542)** is a press-ready plastisol matte base for mixing colors using C3 Color Boosters. NPT HO Base prints on 100% cotton or over a NPT low bleed underlay when printing on poly/cotton blends.
- **NPT Poly Base (EL0746)** is a press-ready, non-phthalate, low bleed plastisol base used to mix colors for printing on 100% polyester. For optimal protection against dye migration, this should always be used with NPT Super Poly Plus White. Where severe bleeding is a problem, utilize ES0266 NPT Barrier Base as an under base for maximum protection against dye migration.

- 💡 • **Chill LC Cotton Mixing Base (LC0540)** is a press-ready plastisol base for mixing colors using C3 NPT Color Boosters. LC0540 prints on 100% cotton or over a Chill low bleed underlay when printing on poly/cotton blends.

- 💡 • **Chill LC LB Mixing Base (LC0209)** is a non-phthalate, low bleed and low cure base for mixing colors using the C3 Color boosters. This mixing base is created for printing on polyester garments for both manual and automatic printers.

Others

- **NPT Natural Base M3 (M30063)** is created to be mixed into the M3 ink system to extend the volume of ink.
- **NPT Opaque Chino Base (EH0245)** produces extremely soft, tone-on-tone prints, while also acting as a reducer. This product can be used to create vintage style prints.
- **NPT Chino Base/Reducer (ES0250)** allows for an extremely soft Sepia tone or tone-on-tone prints for a variety of subdued looks. This base can be colored to your specifications by mixing up to 30% EB Color Concentrates with 70% NPT Chino Base. This product can also be used as a reducer for non-phthalate plastisol applications.

Flexible Cure Bases and Others

- Inks and additives in Avient’s Reduced Energy Use portfolio are attributed with reducing energy consumption from typical alternatives. Reduced energy use is commonly associated with faster cycle times, decreased carbon emissions, and lower energy costs.

Avient offers a variety of low, or flexible, cure inks that not only reduce energy consumption, but also minimize dye-migration and prevent shrinkage of heat-sensitive fabrics. These inks cure at temperatures as low as 270°F (132°C), as opposed to the standard 320°F (160°C) cure temperature of standard inks.
- When paired with flexible cure inks, **Chill LC Barrier Grey** and **Chill LC LB Mixing Base** can reduce energy usage.



PRINT GALLERY






Sustainability Spotlight



Reduced Energy Use

BASES AND OTHERS

CATEGORY	BLEED BLOCKERS		MIXING BASES					OTHERS	
Product Name	NPT Barrier Base	 Chill LC Barrier Grey	NPT VO Base	NPT HO Matte Base	 Chill LC Cotton Mixing Base	NPT Poly Base	 Chill LC LB Mixing Base	NPT Natural Base M3	NPT Opaque Chino Base
Code	ES0266	LC0550	EH0540	EH0542	LC0540	EL0746	LC0209	M30063	EH0245
Plastisol type	Standard cure	Flexible cure	Standard cure	Standard cure	Flexible cure	Standard cure	Flexible cure	Standard cure	Standard cure
Colors	Grey	Grey	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SUBSTRATES									
Cotton	N/A	N/A	Excellent	Excellent	Excellent	N/A	N/A	Excellent	Excellent
Cotton/ Polyeseter	Excellent	Excellent	Good (1)	Good (1)	Good (2)	Excellent	Excellent	Good (1)	Good (1)
100% Polyester	Excellent	Excellent	Good (1)	Good (1)	Good (2)	Excellent(1)	Excellent(2)	Good (1)	Good (1)
Athletic Nylon Mesh	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
Tightly Woven Denier Cloths	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required	Catalyst required
PROPERTIES AND PERFORMANCE									
Opacity	N/A	N/A	Best	Best	Best	Best	Best	Low	Better
Bleed Resistance	Excellent	Excellent	N/A	N/A	N/A	Good (1)	Good (2)	N/A	N/A
Hand	N/A	N/A	Best	Best	Best	Better	Better	Best	Better
Wet-on-Wet Capability	No	No	Yes	Yes	Yes	No	No	Yes	Yes
APPLICATION									
Mesh	86–110 t/in	86–110 t/in	86–230 t/in	86–320 t/in	86–305 t/in	86–230 t/in	86–230 t/in	110 t/in	305 t/in
Flash	140–150°F (60–65°C) on preheated pallets	150°F (66°C)	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets	220°F (105°C)	140–150°F (60–65°C) on preheated pallets	220°F (105°C)	140–150°F (60–65°C) on preheated pallets	140–150°F (60–65°C) on preheated pallets
Stencil	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Cure Temperature	320°F (160°C)	270–320°F (132–160°C)	320°F (160°C)	320°F (160°C)	270–320°F (132–160°C)	320°F (160°C)	270–320°F (132–160°C)	320°F (160°C)	320°F (160°C)
Wash	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant	Standard plastisol cleaners, press wash, or ink degradant
ADDITIVES									
Viscosity Reducer	K2910 Viscosity Buster	K2912 Viscosity Buster LC	K2910 Viscosity Buster	K2910 Viscosity Buster	K2912 Viscosity Buster LC	Viscosity Buster	K2912 Viscosity Buster LC	K2910 Viscosity Buster	K2910 Viscosity Buster
Bonding Agent	Not recommended	Not recommended	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst	K2940 Hugger Catalyst
Extender	Not recommended	Not recommended	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(1) For challenging fabrics a bleed blocking underbase such as ES0266 NPT Barrier Base is required

(2) For challenging fabrics a bleed blocking underbase such as LC0550 Chill Barrier Grey is required



www.rutlandinc.com

Always test inks prior to production to ensure fitness for your particular application. Customer is responsible for proper application, suitability, and cure of all inks.



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