The **COMPLETE**
Sihl **Solvent** Media Guide

From Imaging Paper to Canvas...
HOW TO CHOOSE Just Got Easier!

About Sihl Digital Imaging
Sihl is a leading manufacturer of digital print media for display graphics, photo and art reproduction, point-of-sale advertising, CAD, office and at-home printing.

Sihl's expansive portfolio of digital imaging media includes: photo papers, 100% recycled, pressure sensitive block-out and presentation matte papers, clear, white and backlit films, semi rigid film for pop-up and roll up displays, canvas, scrim banner, pressure sensitive vinyl, adhesive backed papers and films, and fabrics transfer papers.

Sihl is a part of the Diatec Group of companies. Headquartered in Cles, Italy, Sihl has manufacturing sites in the USA, Germany, France, Italy and Switzerland. Diatec is a manufacturing Group, linked by coating films, papers and specialty substrates as our source of value addition...
We are "THE COATING COMPANY."

How to Buy Sihl Products
For Sihl Digital Imaging product information, please call 1-800-366-7393 or visit our website, www.sihlusa.com, where you can find more product information and an authorized Sihl reseller near you.

About Our Group
The foundation stone was laid in Milan, Italy by Diego Mosna when he founded Diatec in 1970. Today we are an internationally active group of companies that focuses on refining paper and films and specializes in superior technical applications.

Continual product development and increasingly short life cycles necessitate not only state-of-the-art production facilities, but also a high level of technical know-how and skill, combined with a business instinct and the ability to put ideas into practice.

The Diatec Group strives to be not only a supplier, but also a partner to its customers.

Locations

Arkwright Production Site
Rhode Island, USA

Sihl AG Production Site
Bern, Switzerland

Sihl GmbH Production Site
Duren, Germany

Diatec Cles S.p.A.
Cles, Italy

Diatex S.p.A.
Cles and Arborio, Italy

**Diatechnologies s.a.s.**
Châteauroux, France

How to Choose the Right Imaging Paper

Sihl breaks down the top paper applications and the right media to match.

So you bought a solvent printer. Are you realizing that there is more to life than self adhesive vinyl and scrim banner? Did you know that outdoor imaging paper is the third most commonly used media for your new machine?

Sihl manufactures a full portfolio of multi - layer coated, water and outdoor resistant papers under the **TriSolv™** name. All **TriSolv™** papers are qualified for outdoor application, including billboard and wet posting. The TriSolv™ proprietary coating delivers excellent scratch resistance without lamination and withstands folding without cracking.
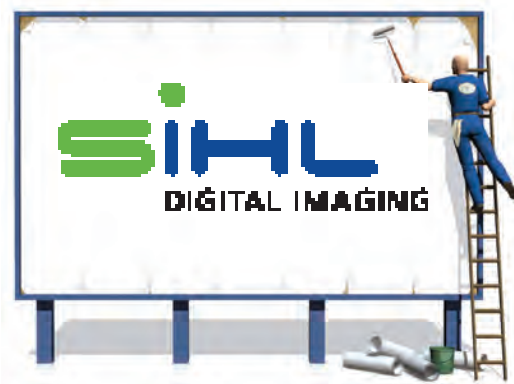
BEST FOR EVERYDAY POSTERS EVERYDAY SIGNAGE	BEST FOR SHORT TERM ADHESIVE SIGNAGE	BEST FOR BLOCKOUT POSTED SIGNAGE	BEST FOR SHORT TERM POSTED SIGNAGE
3686 TriSolv™ Gloss PrimeArt Paper - 8 mil	**3683** TriSolv™ Gloss PrimeArt Paper Blueback PSA - 9 mil	**3687** TriSolv™ Satin PostArt Paper Blueback - 6 mil	**3689** TriSolv™ Satin PostArt Paper - 6 mil

» Not everything printed on solvent printers wraps around a vehicle or hangs with grommets. Paper is the preferred solution for low cost signage that can be used for a variety of applications, indoors or outdoors.

Top Pick

» **3686** TriSolv™ Paper is a premium, 8 mil, bright white, gloss coated paper with excellent print quality and drytime. Sihl manufactures a full portfolio of multi - layer coated, water and outdoor resistant papers under the TriSolv™ name. All TriSolv™ papers are qualified for billboard and posting applications. The TriSolv™ proprietary coating delivers excellent scratch resistance without lamination and withstands folding without cracking.

Also See:
» **3683** TriSolv™ PrimeArt Paper blueback PSA

» The application for short term, adhesive backed signage ranges from standard posters, package prototypes and even retail / trade-show graphics. While low cost vinyl is the choice for some, vinyl can shrink and is difficult to in-stall. Paper offers similar outdoor durability and print performance while also offering a "PVC Free" solution.

» **3683** TriSolv™ Blueback PSA is a 6 mil, gloss coated paper with a 2 mil, silicon, release liner for easy application to a variety of surfaces and substrates.   You can apply 3683 directly on top of an old graphic without fear of "show-through". The permanent acrylic adhesive will bond well to most smooth surfaces and the blueback will prevent any color from show-ing through to the front.

Also See:
» **3686** TriSolv™ PrimeArt Paper

» When short term advertising calls for posting new graphics over old ones, only a blockout layer can prevent the old graphic from showing through the new graphic.

» **3687** TriSolv™ Paper Blueback is an economical weight, bright white, wet strength paper that is qualified for billboard and out-door advertising use. 3687 fea-tures good print quality, excellent outdoor durability, and excellent scratch resistance. You can apply 3687 directly on top of an old graphic instead of removing it, as the blueback will prevent the old graphic from showing through.

Also See:
» **3689** TriSolv™ PostArt Paper

» Short term, outdoor advertis-ing for entertainment, construc-tion and retail promotion utilizes a standard process, starting with a wet strength paper, that can be prepped with a standardized soaking process and applied with a standardized posting glue.

» **3689** TriSolv™ Paper is an economical weight, bright white, wet strength paper that is quali-fied for billboard and outdoor advertising use. 3689 features good print quality, excellent outdoor durability, and excellent scratch resistance.

Also See:
» **3687** TriSolv™ PostArt Paper Blueback

**BEST FOR
MATTE PRODUCTION**

3157 Pacifica™ Matte
Photo Paper - 8 mil

**BEST FOR
OUTDOOR DURABLE**

3196 Wet Strength™ Satin
Poster Paper - 11 mil

New product

» Yes, your solvent printer can deliver photo quality output too. The dot size, resolution and color gamut of solvent printers continues to improve with each generation.

» **3157** Pacifica™ is a bright white, super smooth, high performance matte photo paper designed specifically for premium performance on solvent printers.. Pacifica™ features a proprietary barrier coating that seals the base paper, prevents show through and cockle, and maximizes print density color gamut and shadow detail at the surface.

» Okay, we are in the paper category, not self adhesive vinyl or banner. However, latex saturated base papers offer outstanding durability and strength, even when wet.

» **3196** Wet Strength™ Poster Paper is an 11 mil, premium weight, wet strength paper. The base paper is infused with latex, allowing it to be extremely durable and maintain its integrity. This makes 3196 an ideal alternative to PVC for wallpaper, bus shelters and other decorative indoor and outdoor applications. 3196 is universally compatible with solvent, latex and UVC printers.

Also See:
» TriSolv™ PostArt Papers
» TriSolv™ PrimeArt Papers

DID YOU KNOW?
Helpful Hints from Sihl...

TRISOLV™ PAPERS CAN BE USED FOR WALLPAPER AND OTHER WALL-ART APPLICATION.

The ability for digital print to create short run, customized wallpaper and wall covering installations has helped redefine and expand this existing market segment. What was once dominated by self adhesive vinyl, is today dominated by anything other than vinyl. With options ranging from wet strength paper, polypropylene, textured films and woven polyester; both environmental and technical objections to vinyl have a variety of materials to choose from.
The Sihl TriSolv™ line of paper starts with a unique base paper structure that allows for TriSolv to be applied in a variety of applications that require wet strength and structural integrity.

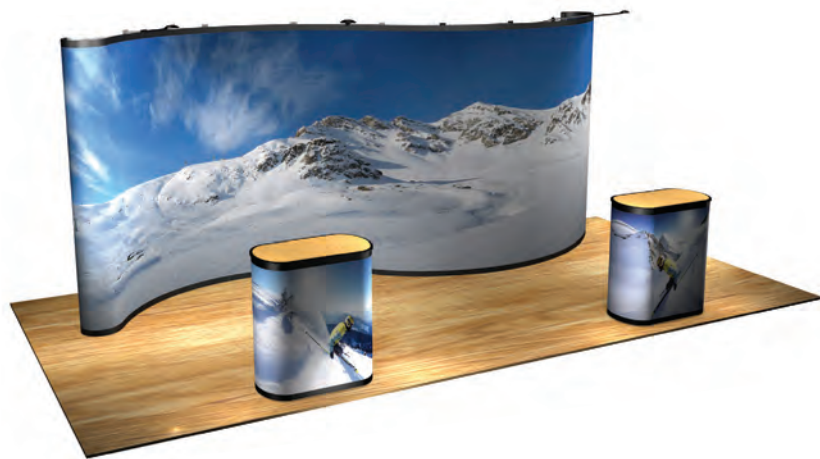HOW TO APPLY TRISOLV™ WITH WALLPAPER PASTE (GLUES)
The correct preparation of the poster.

- After printing, allow to dry thoroughly (at least 4 hrs)
- Fold print(s)
    - Fold printed side to printed side leaving 1″ uncovered.
    - Turn 90° and repeat
- Soak print completely in water (not in glue!) for up to 15 minutes
- Push out excess water with hand, roller or squeegee
- Place print(s) inside an air tight plastic bag (or box)
- Allow to soak for no less than eight hours
    - Longer periods (over weekend, e.g.) are ok
- Remove print from bag
- Wipe off the spare water
- Apply glue to mounting surface
- Paste the wet TriSolv™ paper onto the billboard
- Overlap seams by at least half of an inch
- Wipe again with the glue over front surface of print
- Installation will dry

Rolling out the Choices for POS Graphics

Why this demanding application requires a calculated approach.

Choosing the right point of sale, retractable, pop-up, or tradeshow display film is a complex equation balancing durability and cost. A low cost graphic that looks great but tears too easily is no more successful than an indestructible graphic that only needs to last for one event. The choices can be overwhelming. That is where Sihl comes in.

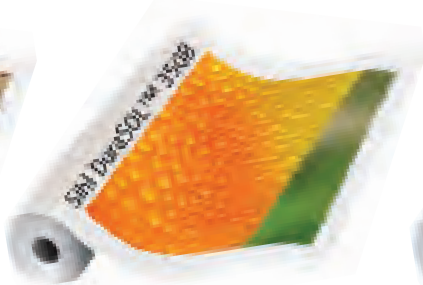| BEST FOR PORTABLE DISPLAY UNITS / RETAIL SIGNAGE (SEMI RIGID PVC)	BEST FOR FLAT WALL EXHIBIT / RETAIL GRAPHICS (SEMI RIGID PVC)	BEST FOR CURVED PANEL EXHIBIT / RETAIL GRAPHICS (SEMI RIGID PVC)	BEST FOR PORTABLE DISPLAY UNITS / RETAIL SIGNAGE
3408 DuraSOL™ Satin Light Display Film - 9 mil	**3508** DuraSOL™ Satin Heavy Display Film - 17 mil	**3608** DuraSOL™ Satin Medium Display Film - 12 mil	**3394** SyntiART™ Matte Textured Polypropylene Film - 8 mil

Top Pick

» Looking for a durable, flexible and tear resistant material for retractable banners, shelf strips, portable displays or any application requiring the perfect combination of rigidity and flexibility?

» **3408** DuraSOL™ Light is a 9 mil, semi-rigid, PVC display film with a "low glare," satin finish and an instant dry, scratch resistant coating. The durable construction features tear resistant PVC intended to be used unlaminated to create a durable roll-up panel engineered to withstand repeated rolling in portable display units without cupping, warping or scratching. DuraSOL™ 3408 is compatible with all solvent printers.

» Whether it's an exhibit panel, tradeshow graphics, or POS display panels, the requirements are all the same; semi-rigid materials for flexibility with maximum durability. We combined those requirements with outstanding print performance to deliver an industry leading solution year after year.

» **3508** DuraSOL™ Heavy is a 17 mil, semi-rigid, PVC display film with a "low glare," satin finish and an instant dry, scratch resistant coating. The durable construction features tear resistant PVC, intended to be used unlaminated to create a durable tradeshow panel, engineered to withstand repeated rolling in portable display units without cupping, warping or scratching. DuraSOL™ 3508 is compatible with solvent and UVC printers.

» Looking for a durable, flexible and tear resistant material for retractable banners, shelf strips, portable displays or any application requiring the perfect combination of rigidity and flexibility?

» **3608** DuraSOL™ Medium is a 12 mil, semi-rigid, PVC display film with a "low glare," satin finish and an instant dry, scratch resistant coating. The durable construction features tear resistant PVC, intended to be used unlaminated to create a durable tradeshow or roll-up panel, engineered to withstand repeated rolling in portable display units without cupping, warping or scratching. DuraSOL™ 3608 is compatible with solvent and UVC printers.

New product

» A textured polypropylene film for applications ranging from gallery wrapped canvas to banner stands and wall murals.

» **3394** SyntiART™ is a tear resistant, embossed polypropylene film with a "low glare," satin finish and a water resistant, scratch resistant coating. SyntiART™ is the latest addition to the SyntiSOL™ family of products which all feature a high performance coating and excellent water and scratch resistance. SyntiART™ is compatible with solvent, UVC and latex printers.

| BEST FOR ROLLUP BANNERS (POLYPROPYLENE) | BEST FOR PORTABLE DISPLAY UNITS / RETAIL SIGNAGE (POLYESTER) | BEST FOR FLAT WALL EXHIBIT / RETAIL GRAPHICS (POLYESTER) | BEST FOR SMOOTH SURFACE REMOVABLE WALL GRAPHICS (POLYPROPYLENE) |

3629 SyntiSOL™ Satin Polypro Film - 7 mil

3515 PolySOL™ Satin Roll-up Film Blockout - 7 mil

3516 PolySOL™ Satin Pop-up Film Blockout - 12 mil

3529 SyntiSOL™ Satin Polypro Film EasyTack™ - 8 mil

» For single use and short term roll-up banners or retractable banners; polypropylene is a great choice.

» **3629** SyntiSOL™ is a tear resistant, smooth, polypropylene display film with a "low glare," satin finish and a water resistant, scratch resistant coating. The SyntiSOL™ family of products lay extremely flat, both on the printer and in final application. 3629 is compatible with solvent, UVC and latex printers.

New Product

» Maximum durability, vivid color and universal compatibility for any POS application with "shine-through" protection.

» **3515** PolySOL™ is a 7 mil, white polyester film with an instant dry, glossy finish for outstanding "color pop" and a greyback for 100% blockout. The durable construction is engineered to withstand repeated rolling in portable display units without tearing or edge fraying. 3515 can be overlaminated with either low-melt or pressure sensitive laminates.

New Product

» Quite simply a dimensionally stable film that delivers in every characteristic. From printing to finishing, installation to removal, PoylSOL™ delivers flexibility, durability and quality.

» **3516** PolySOL™ Pop-Up is a 12 mil, polyester display film with a "low glare," satin finish and an instant dry, water resistant coating. The durable, 12 mil construction is intended to be used unlaminated to create a durable exhibit or POS graphic. It is engineered to withstand repeated rolling in portable display units and abuse from a hands-on experience without cupping, warping or scratching. For additional protection, 3516 can be overlaminated with both pressure sensitive and hot laminates.

» Perfect for smooth surfaces (glass or smooth walls). Stick it and unstick it!

» **3529** SyntiSOL™ is not your average, bright white, satin coated, polypropylene. What makes 3529 unique is its proprietary, low tack self-adhesive. The special, low-tack glue allows for easy, 100% bubble-free application and residue-free removal on glass and other smooth, flat surfaces. For surfaces including walls and boards with raised structure, we recommend testing prior to final application. The SyntiSOL™ family of products lay extremely flat, both on the printer and in final application.

DID YOU KNOW? Helpful Hints from Sihl...

MATCHING PRINT FILMS AND OVERLAMINATES

Matching similar thickness and material types of print films, overlaminates and backers is the best way to create an ultra durable sandwich for your graphics. For example, 6 mil printable polyester and 15 mil polycarbonate overlaminate is not a good solution. The rigid polycarbonate will ultimately delaminate from the polyester face film at the most inopportune time.

For backwall displays (>20mil), start with a 9-12 mil film and pair it with a 10-15 mil laminate.

*For retractable displays (<12 mil), start with a 4-9 mil film and pair it with a flexible overlaminate <5 mil thick.

* if using an overlaminate

APPLYING VELCRO STRIPS OR MAGNETIC TAPE

Before you apply full, 1" velcro strips to every edge of your tradeshow graphic, remember your graphics will likely be rolled and stored for an extended period of time. By applying velcro in 1/2" strips and slitting the pieces every 12"-24" to align with the diameter of the roll, you will prevent the velcro from buckling during extended storage. This will ultimately help prevent delamination and extend the life of your graphics.

Or follow this simple montra... Don't overuse velcro.

HOW TO ROLL TRADESHOW GRAPHICS

Since tradeshow graphics go through a tremendous amount of stress from rolling and unrolling, everything that can be done to minimize this stress can help prevent delamination and extend the life of your graphics.

For shipping and storing:
Roll laminated graphics image side out (this refers to the side on which the ink is printed), no smaller than a 9" diameter. If possible, store flat for longer storage periods. If velcro is applied to the backside, place a slip sheet or protective paper next to the velcro to prevent it from scratching your finished surface.

Shedding Some Light on Backlit

What really matters when comparing backlit films?

Choosing the right backlit film can be tricky. Let's be honest. The most important aspects when choosing a backlit film are density, density, and density. Regardless of whether your graphic is going inside or outside, whether it is large or small, mounting to Plexiglass or "sandwiching" between two layers, you want your blacks to be dark, your colors vibrant and your graphic flat.

Sihl Optilux™ backlit film is the industry leader in print quality and, of course, density. Optilux™ features a unique, super absorbent, matte coating that looks washed out and dull coming off the printer, but delivers outstanding "color-pop" and vivid color when placed in a backlit box or lit from behind.

BEST FOR LARGE BACKLIT DISPLAYS

3549 Optilux™ Matte Backlit Film - 8 mil

» We don't mind telling you Optilux™ can achieve over 50% higher density then our closest competitor on any solvent printer. Print, install and turn on the lights...end of discussion!

» **3549** Optilux™ is a premium weight, 8 mil, fast dry, front-print, polyester, backlit film designed for indoor and outdoor durable displays. The entire Optilux™ family features superior water resistance, scratch resistance and fade resistance without sacrificing print quality and drytime. The proprietary, inkjet coating is super absorbent, which translates to solid blacks and rich colors when illuminated.

BEST FOR ADHERED / APPLIED BACKLIT DISPLAYS (EASY ON AND OFF)

3648 Optilux™ Matte Window Film EasyTack™ - 8 mil

» Print...Install...Remove. Films that are applied or adhered to windows or other translucent surfaces for short term application need to be easy to print, easy to install, and easy to remove.

» **3648** Optilux™ with EasyTack™ is a fast dry, front-print, polyester, backlit film with a proprietary, low tack self-adhesive. This special, low-tack glue allows for easy, 100% bubble-free application and residue-free removal from glass and other flat surfaces. The entire Optilux™ family features superior water resistance, scratch resistance and fade resistance without sacrificing print quality and drytime. The super absorbent, inkjet coating provides solid blacks and rich colors when illuminated.

BEST FOR ECONOMICAL BACKLIT DISPLAYS

3649 Optilux™ Matte Backlit Film - 6 mil

» For an economical alternative to 3549, we started with a thinner film and left everything else untouched. The result is nothing short of outstanding!

Top Pick

» **3649** Optilux™ is a fast dry, economical weight, front-print, polyester, backlit film designed for indoor and outdoor durable displays. The entire Optilux™ family features superior water resistance, scratch resistance and fade resistance without sacrificing print quality and drytime. The super absorbent, inkjet coating provides solid blacks and rich colors when illuminated.

ABOUT OUR FACTS:
To determine K density, we performed a blind test on Sihl Optilux™ 3549 and our closest competitor's film. We turned off all ICC profiles to force the maximum amount of ink on the film. We then read the transmissive density at 100% K with an X-rite 361T. The result was clear as day.
No secrets, no tricks.

Sihl Optilux™ 3549:
K density = 2.9

Competitive Film:
K density = 1.5

Try it yourself or ask a Sihl sales representative for a sample.

DID YOU KNOW?
Helpful Hints from Sihl...

WHAT IS EASYTACK™?
The proprietary, low tack self-adhesive and liner combination, applied to the backside of a variety of Sihl film products that allows for easy, 100% bubble-free application and residue-free removal on glass surfaces.

Fabric Transfer Done Right.

How to make the perfect print and transfer every time.

Before you heat up your iron or press and lay out your garment, make sure you have selected the right transfer material and you have read our instructions.

Our new T-Printz™ Solvent Fabric Transfer is extremely thin, durable and provides long lasting, easy to wear t-shirts or imprinted fabrics. To achieve best results with T-Printz™ Solvent Fabric Transfer, follow the detailed instructions below. Test a swatch in advance of any production run to ensure the perfect transfer.

BEST FOR DARK FABRIC

3197 T-Printz™ Solvent Dark Fabric Transfer - 1.9 mil

» Print...Cut...Weed...Transfer. Easy as 1,2,3. Perfect for short run shirts or fabrics.

» **3197** T-Printz™ Solvent Dark Fabric Transfer is an ultra-thin and ultra-durable solvent inkjet printable fabric transfer media. Sihl 3197 hardly changes the "hand" or feel of the fabric, providing an extremely soft hand and bright, brilliant colors. The white layer completely blocks out fabric color to achieve white on dark and black fabrics. 3197 is also OBA free, so the background color will not fade over time.

DID YOU KNOW?
Helpful Hints from Sihl...

1)PRINT
Print using "Fabric Transfer" or "Generic Vinyl" profile print settings
Set heaters to 30°C or 86°F"

2)CUT
Ensure cutting blade is sharp and proper force/weight is set.

Lower the blade setting substantially from standard vinyl and complete a test cut procedure.

3) WEED
Remove unwanted area of image. This might require an sharp blade to "grab" the edge or even re-cut tight radii.

4) PREPARE FOR TRANSFER
Apply application tape over complete image without tiling or creating a seam. For small text (under .75") weed and apply application tape within one hour of cutting. Some curl might occur after one hour.

4a) Place image with application tape side down and peel back release liner.

4b) Place image face up on fabric, centered, with no air bubbles.

5) TRANSFER
Set temperature on press to 370°F - 375°F or 188°C - 190°C (100% Cotton) . When applying T-Printz™ to polyester blends, adjust heat slightly lower depending on higher than 50% polyester content in the fabric.

- 50/50 Blend Fabrics
325°F for 5-10 seconds
Firm or Heavy Pressure

- 100% Cotton
375°F for 15-20 Seconds
Firm or Heavy Pressure

5a) Remove from press and let cool! After cooling, peel back release liner at a sharp angle.

6) WASH INSTRUCTIONS
For longest lasting results: Wash on delicate mode, inside out. Tumble dry low or no heat.

Sticking to The Right PSA Solution!

How to avoid a sticky mess by choosing the right adhesive media.

Choosing the right PSA solution requires only two pieces of information. What are the properties of the mounting surface and how long do you want it to stay there?

OK, there's a little more to it than that! Here are some basic facts to help figure out the difference between the base material choices.

Paper certainly does not have the flexibility, tear resistance or durability of vinyl, but it also won't shrink over time and is easier to apply. Sihl TriSolv™ PSA, 3683, features a premium, instant dry coating and low glare finish, perfect for posters or prototypes.

Polypropylene is a good balance between cost and durability. It has better tear resistance and durability than paper, but is certainly not tear proof.   Polypro, like paper, won't shrink over time and is offered with an EasyTack™ adhesive (Easy on...Easy off).

Polyester is dimensionally stable so it won't tear or shrink. In the case of Optilux™ **3648**, it can also feature a "milky," opacifying layer to help evenly disperse light and provide a pleasing window graphic.

BEST FOR LIGHT TEXTURED (SHORT TERM OUTDOOR)	BEST FOR SMOOTH SURFACE (OUTDOOR DURABLE)	BEST FOR CLEAR / TRANSLUCENT (REMOVABLE)
3683 TriSolv™ Gloss PrimeArt Paper Blueback PSA - 9 mil	**3529** SyntiSOL™ Satin Polypro Film with EasyTack™ - 8 mil	**3648** Optilux™ Matte Window Film EasyTack™ - 8 mil

» The application for short term, adhesive backed signage ranges from standard posters, package prototypes and even retail / tradeshow graphics. While low cost vinyl is the choice for some, vinyl can shrink and is difficult to install. Paper offers similar outdoor durability and print performance while also offering a "PVC Free" solution.

» **3683** TriSolv™ Blueback PSA is a 6 mil, gloss coated paper with a 2 mil, silicon, release liner for easy application to a variety of surfaces and substrates.   You can apply 3683 directly on top of an old graphic without fear of "showthrough". The permanent acrylic adhesive will bond well to most smooth surfaces and the blueback will prevent any color from showing through to the front.

» Perfect for smooth surfaces (glass or smooth walls). Stick it and unstick it!

Top Pick

» **3529** SyntiSOL™ is not your average bright white, satin coated, polypropylene. What makes 3529 unique is its proprietary, low tack self-adhesive. The special, low-tack glue allows for easy, 100% bubble-free application and residue-free removal on glass and other smooth, flat surfaces. For surfaces including walls and boards with raised structure, we recommend testing prior to final application. The SyntiSOL™ family of products lay extremely flat, both on the printer and in final application.

» Print...Install...Remove. Films that are applied or adhered to windows or other translucent surfaces for short term application need to be easy to print, easy to install, and easy to remove.

» **3648** Optilux™ with EasyTack™ is a fast dry, front-print, polyester, backlit film with a proprietary low tack self-adhesive. This special, low-tack glue allows for easy, 100% bubble-free application and residue-free removal from glass and other flat surfaces. The entire Optilux™ family features superior water resistance, scratch resistance and fade resistance without sacrificing print quality and drytime. The super absorbent, inkjet coating provides solid blacks and rich colors when illuminated.

DID YOU KNOW?
Helpful Hints from Sihl...

WHAT IS EASYTACK™?

The proprietary, low tack self-adhesive and liner combination, applied to the backside of a variety of Sihl film products, allows for easy, 100% bubble-free application and residue-free removal on glass surfaces. For surfaces including walls and boards with raised structure, we recommend testing prior to final application.

Stretching the Options for Canvas

See how subtle differences can make a big difference to your final print.

Choosing the right canvas actually starts with whether you are going to finish your print and how.

Q: ARE YOU GOING TO STRETCH YOUR CANVAS?
A: 2:1 canvas is best for stretching as it is more flexible and won't crack on the corners.

Q: ARE YOU GOING TO APPLY AN OVERCOAT?
A: You can transform a matte canvas into a gloss canvas or vice versa with the application of a liquid overcoat.

**BEST FOR
PRINT COLOR GAMUT
BLACK DENSITY**

3609 Picasso™
Satin Canvas - 17 mil

» Premium print performance and 180° folding without edge cracking. "Gallery Wrap Canvas."

Top Pick
New product

» **3609** Picasso™ is a premium, bright white, inkjet coated canvas designed to produce solid blacks, vivid colors and smooth gradients. The 17 mil, poly / cotton blend provides a flexible base for easy stretching without cracking. Picasso™ canvas is compatible with solvent, UVC and latex printers.

**BEST FOR
ECONOMICAL PRINTS**

**3482** SMART™
Satin Canvas - 24 mil

» For price conscious projects and good quality print performance mixed with bright white and strong, even texture.

» **3482** SMART™ Canvas is an economical, coated canvas with a 2:1 weave structure and 100% cotton base, providing a natural looking product. 3482 is well suited for stretching and framing applications and is OBA free, so the background color will not fade over time. SMART™ Canvas is compatible with most solvent and eco solvent printers.

**BEST FOR
DECOR CANVAS
PRINTS**

3394 SyntiART™ Matte
Textured Polypropylene Film - 8 mil
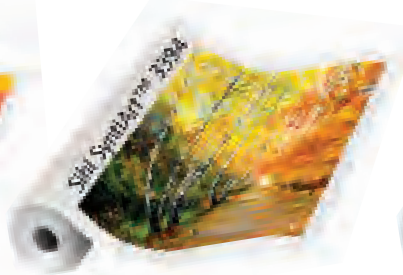
» A textured, polypropylene film for applications ranging from gallery wrapped canvas to banner stands and wall murals.

New product

» **3394** SyntiART™ is a tear resistant, embossed, polypropylene film with a "low glare," satin finish and a water resistant, scratch resistant coating. SyntiART™ is the latest addition to the SyntiSOL™ family of products which all feature a high performance coating and excellent water and scratch resistance. SyntiART™ is compatible with solvent, UVC and latex printers.

**BEST FOR
EVERYDAY CANVAS
PRINTS**

3133 Virtuoso™
Matte Canvas - 17 mil

» An everyday canvas should be economical and offer good characteristics for print production and post process finishing.

New product

» **3133** Virtuoso™ Matte Canvas is a premium, bright white, inkjet coated canvas designed to produce solid blacks, vivid colors and smooth gradients. The 17 mil, poly / cotton blend provides a flexible base for easy stretching without cracking. Virtuoso™ canvas is compatible with solvent, UVC and latex printers.

Choosing the Right Banner

Sihl takes the mystery out of matching the right media with the right printer and application.

All Sihl solvent banner uses a high quality, polyester fiber weave fused between two vinyl layers for a smooth print surface and a bright white finish.

BEST FOR SMALL ECONOMICAL SINGLE SIDED (GLOSS)

3104 SureBet™
Gloss Vinyl Banner - 10 oz

Weight:	10 oz per Yard
Yarn Weight:	200 x 500 Denier
Thread Count:	18 x 12 thread per inch
Thickness:	11 mil / 280 Microns
Support Cloth:	Polyester
Tensile Strength:	600/650 (warp/weft N/5CM)
Tear Strength:	80/95 (warp/weft N/M)
Low Temp Crack:	-10° C

Top Pick
BEST FOR LARGE SHORT TERM SINGLE SIDED (GLOSS)

3106 SureBet™
Gloss Vinyl Banner - 13 oz

Weight:	13 oz per Yard
Yarn Weight:	300 x 500 Denier
Thread Count:	18 x 12 thread per inch
Thickness:	15 mil / 320 Microns
Support Cloth:	Polyester
Tensile Strength:	650/800 (warp/weft N/5CM)
Tear Strength:	110/125 (warp/weft N/M)
Low Temp Crack:	-10° C

BEST FOR LARGE SHORT TERM SINGLE SIDED (MATTE)

3107 SureBet™
Matte Vinyl Banner - 13 oz

Weight:	13 oz per Yard
Yarn Weight:	300 x 500 Denier
Thread Count:	18 x 12 thread per inch
Thickness:	15 mil / 320 Microns
Support Cloth:	Polyester
Tensile Strength:	650/800 (warp/weft N/5CM)
Tear Strength:	110/125 (warp/weft N/M)
Low Temp Crack:	-10° C

Top Pick
BEST FOR LARGE LONG TERM 2 SIDED (SEMI-MATTE)

3118 SureBet™
Semi-Matte
Vinyl Banner 2 Sided - 18 oz

Weight:	18 oz per Yard
Yarn Weight:	500 x 500 Denier
Thread Count:	28 x 28 thread per inch
Thickness:	18 mil / 460 Microns
Support Cloth:	Polyester
Tensile Strength:	1850/1350 (warp/weft N/5CM)
Tear Strength:	240/220 (warp/weft N/M)
Low Temp Crack:	-10° C

BEST FOR SMALL SHORT TERM 2 SIDED (SEMI-MATTE)

3109 SureBet™
Semi-Matte
Vinyl Banner 2 Sided- 13 oz

Weight:	13 oz per Yard
Yarn Weight:	250 x 250 Denier
Thread Count:	36 x 36 thread per inch
Thickness:	13.5 mil / 340 Microns
Support Cloth:	Polyester
Tensile Strength:	1300/1100 (warp/weft N/5CM)
Tear Strength:	120/110 (warp/weft N/M)
Low Temp Crack:	-10° C

BEST FOR LARGE / ULTRA DURABLE LONG TERM SINGLE SIDED

3120 SureBet TMax™
Vinyl Banner - 13 oz - Gloss

3121 SureBet TMax™
Vinyl Banner - 13 oz - Semi-Matte

Weight:	13 oz per Yard
Yarn Weight:	1000 x 1000 Denier
Thread Count:	9 x 9 thread per inch
Thickness:	15 mil / 390 Microns
Support Cloth:	Polyester
Tensile Strength:	1500/1200 (warp/weft N/5CM)
Tear Strength:	240/190 (warp/weft N/M)
Low Temp Crack:	-10° C

DID YOU KNOW?
Helpful Hints from Sihl…

Question: Why are lead, cadmium and other metals in PVC?
Answer:
They act as a stabilizer. When PVC degrades, if forms hydrochloric acid. Once formed, the acid accelerates the PVC degradation. By including salts of various heavy metals in the PVC compound, when HCL first forms, it reacts preferentially with the heavy metal and is neutralized. Some of the replacement materials for lead and cadmium are actually MORE toxic, e.g., certain "organo-tin" compounds.

Question: Why are phthalates in PVC?
Answer:
They are used as plasticizers to make the compounded PVC flexible. Without plasticizers, PVC is quite brittle (remember the old, old 45 records? Maybe you've seen them in flea-markets.
The most commonly used phthalate plasticizer for PVC is called di-octyl-phthalate (DOP). Most vinyl banners use it. It is the most commonly used because (a) it works, (b) it has good resistance to UV and other forms of degradation, (c) it does not migrate out of the PVC as rapidly as some alternatives, and (d) it is cheap. It poses some health risk, but the research is subject to debate. There are other phthalates used for plasticizing PVC, e.g., di-methyl-phthalate, di-ethyl-phthalate, but the research on whether these alternatives are really safer is in debate. There are non-phthalate compounds used as
alternative plasticizers, but not in such common practice.

Question: How is this relevant to us?
Answer:
Lead stabilized and phthalate plasticized pvc is very commonly used in all manners of compounds in our homes, cars, and offices, and poses no general risk. The concerns regarding the same arise mainly with PVC used in toys, food utensils, and other articles with frequent or potential oral contact. Many banner vinyls used as banners are not a risk.

Question: What are the flame spread ratings of your scrim banner?
Answer:
These products are made from PVC, laminated to both sides of a polyester woven fabric. This product will burn when exposed to direct flame or sufficient heat to cause ignition.

With respect to its "flame spread rating", and referencing publicly available information (***) on this topic, we note the following from the referenced document:

1. When evaluating building materials for safety, many factors, including ignition temperature, smoke toxicity, and flame-spread are considered. Flame-spread, used to describe the surface burning characteristics of building materials, is one of the most tested fire performance properties of a material. The best known test for developing this rating is the American Society for Testing and Materials (ASTM) Test Method E-84, commonly known as the tunnel test.

2. Another popular test method is NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films from the National Fire Protection Association. This test involves exposing media to flame. If the media self extinguishes under certain conditions, it passes.

3. For the testing of materials, Govmark is a reliable source for information; http://www.govmark.com/flammability-fire-testing/specific-test-lists.php.

Sihl Inc. makes no representation or warranty, nor assumes any liability, expressed or implied, regarding the performance of this product, or any other, if subjected to combustion. It is the responsibility of the user of banner media to comply with any and all applicable building code, fire and safety regulations.

(***) "Flame Spread Ratings", http://dps.state.la.us/sfm/doc_flamespread.html

Question: Why do the L*a*b* values of scrim in the swatchbook not match what we receive in finished goods?
Answer:
Presently we have specifications of L*a*b* values, whiteness, gloss, thickness, etc from our scrim manufacturer. These are ranges and we do random samples from lots to maintain consistency.

The below is a statement from which all scrim banner is subject to the relative color instability arising from the materials of construction, including:
- poly-vinyl chloride (PVC) … slow but predictable oxidizing will move white point toward yellow.
- plasticizer (to make the naturally brittle PVC flexible) slowly migrates to the surface, with possible delta E shift.
- topcoats and surface treatments typically include some amount of optical brightener, which tend to break down over time with exposure to UV and airborne oxidizing compounds.

It is predictable that, were you to keep one of your test samples sealed from air and light and other outdoor banner application conditions, you would see a steady increase in measured delta E over a period of months. Fortunately, the application field and market for banners (long distance viewing, indoor/outdoor environmental conditions) has a high tolerance for these variations.

Compatible Printers

Epson® GS 6000
Epson UltraChrome GS ink

» http://www.epson.com

Epson® SureColor S30670
Epson UltraChrome GS2 ink

» http://www.epson.com

Hewlett Packard® DJ 8000s, 9000s, 10000s
Low-Solvent Ink

» http://www.hp.com

Mimaki® JV3
ES3, SS21 ink

» http://www.mimakiusa.com

Mimaki® JV3
ES3, SS21 ink

» http://www.mimakiusa.com

Mimaki® JV5
ES3, HS, Eco-HS1

» http://www.mimakiusa.com

Sihl does not mass produce custom ICC or RIP profiles for our line of inkjet printable media. We do generate a few custom profiles in the application laboratories of our factories in the US and Europe, but these are limited by the printer, software and ink combinations we have at each facility. When possible, we publish printer settings charts for printers on which we have determined the best "standard" setting. These can be used as a starting point, from which you can relinearize to further refine ink limits and color balance, or they can be used as is for print production.

Custom profiles are relatively easy to make today. Many printer and RIP manufacturers offer this as a service or will even walk you through the process online. Some RIP and printer manufacurers actively profile Sihl media and make the profiles available for download on their websites. Additionally, printer and RIP manufacturers provide a wide array of standard and custom printer settings with the standard installed version of their product. Frequently there is an intuitive setting that matches either the material or the finish, that is a perfect match for our media. For example, "Canvas for Solvent 340 satin" for canvas, "Solvent Glossy Paper" for photo paper, "Generic Vinyl 1" for banner.

» If you are experiencing drying issues:
Turn down the heat in 5 degree increments. ("pre-heat" or "print-heat") on your printer. This sounds counter intuitive, but higher temperatures open the pores of the media's coating too much and they don't close before the print reaches the take-up roller. As a general starting point, set your "pre-heat" or "print-heat" to 35°C and your "post-heat" or "dryer-heat" to 40°C.

» If you are experiencing coalescing or bleeding:
Turn up the heat in 5 degree increments. ("pre-heat" or "print-heat") on your printer. As a general starting point, set your "pre-heat" or "print-heat" to 35°C and your "post-heat" or "dryer-heat" to 40°C.

You can also try switching to a higher resolution print setting. This increases the time between passes and produces smaller ink droplets allowing for better drying.

» If you are experiencing head strikes:
Check the thickness of your media and raise the platen gap/head height accordingly. If the media has a strong curl to it, feed the first few inches past the exit roller and front lip of the platen to avoid the curled leading edge.

Compatible Printers

Mutoh® ValueJet Series
Eco-Ultra Ink

» http://www.mutoh.com

Roland® XJ Series
ECO-SOL MAX

» http://www.rolanddga.com

Roland® XC Series
ECO-SOL MAX

» http://www.rolanddga.com

Roland® SP
ECO-SOL MAX

» http://www.rolanddga.com

Roland® VS Series
ECO-SOL MAX

» http://www.rolanddga.com

Seiko® ColorPainter W, H Series
Mild Solvent Ink

» http://www.seiko.com

» **If you are experiencing curing problems:**
Turn up the heat ("pre-heat" or "print-heat") on your printer. Sihl coated media can accept a high ink load without bleeding or coalescing, but with high ink loads, sometimes the ink cannot cure before the print reaches the take-up roller. If you have already reached the maximum heat setting on your printer without causing warping, buckling or other problems, allow the print to cure, uncovered, overnight.

» **If you see banding (white lines between passes):**
Slow down the media feed. The media is advancing too quickly, leaving a space between ink passes from the carriage. If the printer and software has an option to run a "media feed calibration," do so and follow the prompts. This will adjust the speed at which the media is fed through the printer.

This can also be caused by too much or uneven tension from the media take-up reel. Unroll some of the media on the take-up and allow for some slack in the path. This will allow the media to feed from the mechanism on the platten rather then being pulled by the take-up reel. As long as the media interacts with the sensor (usually at the bottom of the printer), the take-up reel will still engage and collect the media.

» **If you see banding (dark lines between passes):**
Speed up the media feed. The media is advancing too slowly, overlapping consecutive ink passes from the car-riage. If the printer and software has an option to run a "media feed calibration," do so and follow the prompts. This will adjust the speed at which the media is fed through the printer.

This can also be solved by reducing the vacuum settings. This will allow the media to feed smoothly, without inter-ference.

» **If you are experiencing buckling or warping:**
Too much heat in the earlier stages ("pre-heat" or "print-heat") may cause the media to buckle. Turn down this early stage heat on your printer. You can compensate by increasing the "post-heat" or "dryer-heat" by 1 or 2 degrees Celsius if you then see coalesc-ing or bleeding.

Just because you **CAN** print on anything...
Doesn't mean you **SHOULD**.
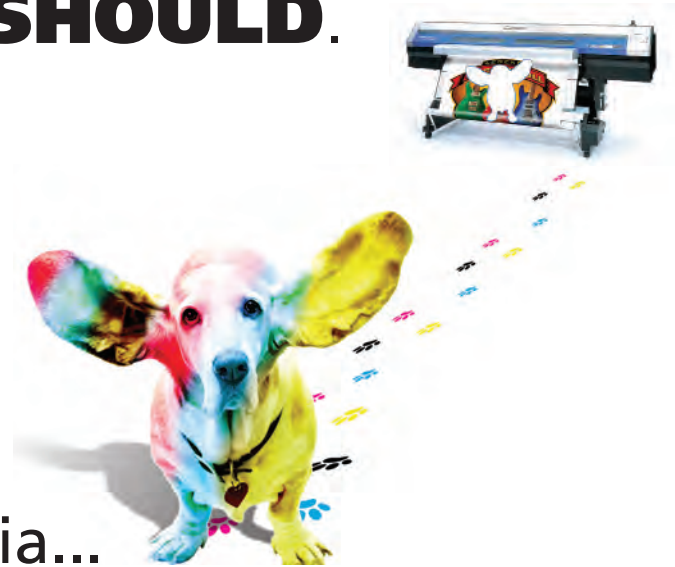
Sihl Inkjet Media...

MORE CHOICES for EVERY PRINTER and EVERY APPLICATION
SOLVENT / AQUEOUS / UV CURE / LATEX / "GREEN"

How to Buy Sihl Products

For additional Sihl Digital Imaging product information, please contact your local Spicers representative. Profiles and additional technical information are available at **www.sihlusa.com** or visit **www.spicers.ca** to learn more

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