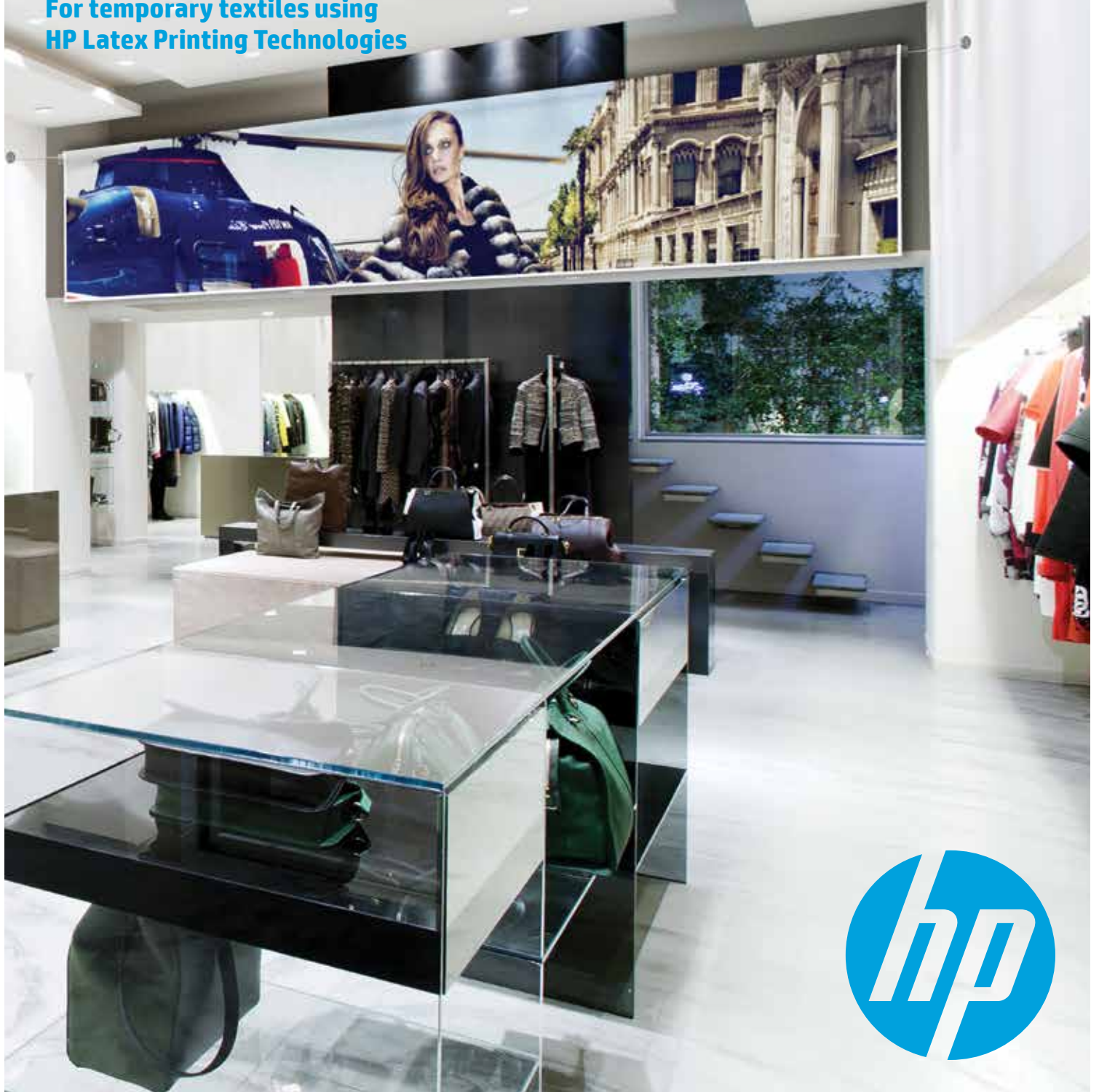# Applications and recommended media

**For temporary textiles using
HP Latex Printing Technologies**

Temporary Textiles – tap into higher profit margins with your HP Latex Printer

The demand for **textiles for signage is growing**, and HP Latex Printing Technologies present a good solution for capturing the temporary textile signage opportunity, in particular. You can leverage the same versatile, high-quality printing system to produce a wide range of traditional signage applications as well as many types of temporary textiles – enabling you to **expand your business into new areas** and **capture more pages without additional investment**.

HP Latex printers are compatible with a wide range of textiles such as **polyesters** and **natural fibers blends**. HP Latex prints are odorless[1] and thanks to the flexibility of the ink, the **feel** of un-coated materials is maintained.

This document will provide you with an overview of the key features of HP Latex Printing Technologies for temporary textiles as well as a guide on how to get optimal results when printing textiles with HP Latex printers.

[1] Some substrates may have inherent odor.
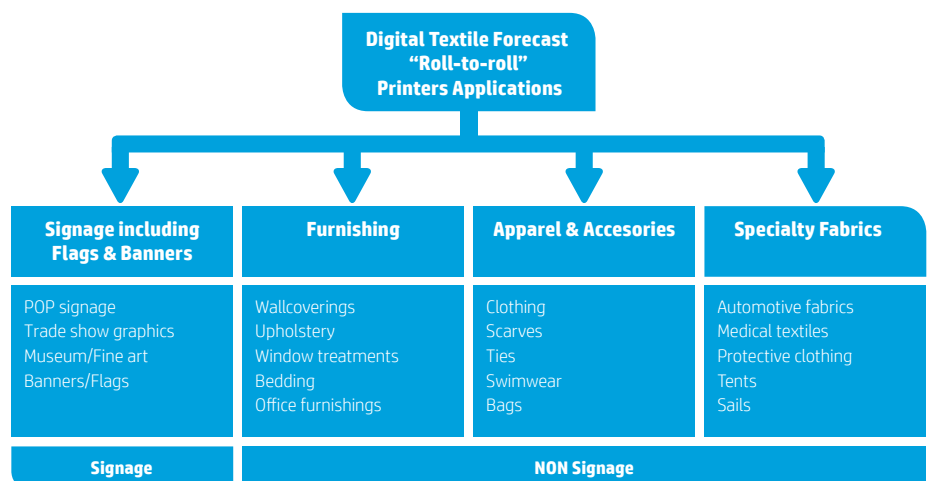
An introduction to textiles

A rapidly growing segment that offers good opportunities for business expansion

Temporary textiles (or soft signage) is the term for flexible advertising signage and interior decoration that is printed on textiles – mostly polyester and some types of canvas – rather than PVC, vinyl, or paper. It is a rapidly growing segment of the overall digital wide format signage market, thus offering an excellent opportunity for business expansion.
Digitally printed signage on textiles emerged in the mid-1990s when print service providers (PSPs) began using various dye-sublimation printing technologies to offer an alternative to paper and vinyl signage and to differentiate themselves in competitive markets. Today, signage accounts for approximately 70% of the market for all digitally printed textiles, which also includes furnishings, apparel, and specialty textiles such as tents and sails[2]. Textiles are broken down into two categories; temporary and long term. We are going to focus on temporary textiles used for signage.

Table 1. Signage and non-signage textile applications[3].

Digital Textile Forecast "Roll-to-roll" Printers Applications			
Signage including Flags & Banners	**Furnishing**	**Apparel & Accesories**	**Specialty Fabrics**
POP signage Trade show graphics Museum/Fine art Banners/Flags	Wallcoverings Upholstery Window treatments Bedding Office furnishings	Clothing Scarves Ties Swimwear Bags	Automotive fabrics Medical textiles Protective clothing Tents Sails
Signage	**NON Signage**		

[2] Fabricgraphicsmag.com January 2010.
[3] I.T. Strategies, Digital Textile Forecast Summary 2010.

Signage categories for temporary textiles

POP signage

POP signage refers primarily to indoor applications used for promoting or advertising products in stores. Textiles are increasingly used to create interesting, upscale, and delicate visual effects. The different look and feel of textiles opens the way for novel advertising applications to better draw the attention of customers.

Trade show graphics

Trade show graphics benefit from using textiles which provide a more premium look that attracts the eye. Textiles are lightweight, flexible, and durable and are ideal for re-use at several events since they are easy to roll up and to transport. Furthermore, textiles require only lightweight display frames, enabling fast and easy assembly on show floors. Textiles can also be draped and fitted around various shapes to display messages in unlimited ways.

Museums/fine art

Hang it from the ceiling, curve it, drape it, make it wavy – the possibilities are endless when using textiles for display in museums. With digitally printed textiles, everything can be customized and the message/communication can be printed directly in one piece on the textile. Textiles are also great for creating atmosphere, different colored lights, and frontlits and backlits can help to convey a message. The hand or the soft touch is an added benefit.

Printing artwork on canvas transforms any image and really brightens up the room. Prints on canvas have a beautiful, premium appearance and ensure that the artwork is presented in the best possible way.

Interior decoration

Upscale appearance and no odor are the primary attributes needed to enhance the interior of a shop, hotel, home, or other site. Textiles are suitable for this purpose and are used in a wide range of applications for interior decoration[4].
Wall murals, framed textiles, upholstery, blinds, and curtains are examples of suitable applications. Some flags can also be used to create separation between different environments in large spaces such as offices.

[4]   Some fabrics may have some odor.

What's in it for your customers?

Textiles are increasingly demanded by brand owners – your customers
Let's try to understand the factors that are driving end-customers' interest in using textiles for signage. These factors can also be useful for you to present the advantages of this substrate category to your customers.

Using textiles for signage has so many advantages
- Light weight
- Soft touch
- Environmental advantages – lighter to transport and ideal for re-use
- Odorless textiles[5]
- Absorbs noise
- Upscale and premium appearance

Saves time and money on handling, shipping, and installation
Textiles weigh much less than vinyl, PVC banner, and other materials that can be used for signage. The light weight facilitates both shipping and handling and can also lower shipment costs involved. The light weight also facilitates the installation process – it is much easier to put up and take down the signage. The strain on the walls or roofs where the textile is attached is also less, making it easier for the surface to support the weight of the textile. Furthermore, textile banners are ideal for temporary events, where they can be removed easily and transported for re-use.

Provides a premium appearance with an attractive touch and feel
Textile's natural drape, texture, and movement give it an attractive appearance and make it a premium choice for signage and campaigns. Textiles also have an attractive touch and feel, or hand, further reinforcing the premium value compared to other substrates. Brand owners can confidently use campaign materials printed on textiles to make campaigns stand out.

A versatile material that can be easily changed
Textiles can be fully customized or tailored to fill a client's needs, for example cut, stitched together, or draped over shapes or other materials. The versatility makes textiles suitable for a wide range of different environments; from signage to corporate environments and offices to trade shows. The texture of textiles also adds another dimension to printed images, making them more visually interesting. Textiles can help create very special atmospheres and effects that are difficult to replicate with other materials.

Recyclable material with a potentially reduced carbon footprint
Textiles such as polyesters are generally recyclable where programs are available. Due to the lighter weight of textiles compared to other materials used for signage such as banners, textiles can also have a lower carbon footprint. A typical PVC banner usually weighs approximately 440 g/m^2 whereas a light textile banner weighs less than 250 g/m^2 and a heavy textile banner ranges from 250 g/m^2 to approximately 400 g/m^2. Textile materials are hence lighter to transport, which is beneficial both for the environment and in terms of cost.

Note
- All these factors help you command premium prices for textile signage and also enable savings on shipment costs. The increase in market adoption of temporary textiles is a fact – your customers want to use textiles for signage applications.

[5] Some fabrics may have some odor.

What's in it for you?

Top 5 reasons to add textiles to your signage portfolio

Now that we have looked at the advantages for your customers or the end-user, let's look at why you should consider entering the temporary textile market. A common misconception is that dealing with textiles is a complicated process – it does not have to be with HP Latex Printing Technologies. Let us present you with the top 5 reasons to consider adding textiles to your signage portfolio.

1. It's a similar application to sign-making – it's what you're already doing so no retraining is required for printer operation

Transition your company from providing pure signage to other markets with your HP Latex Printer and textiles. No retraining of your employees for operating your HP Latex printers is required to start printing on textiles.

2. Little or no additional resources are needed beyond your HP Latex Printer

You are likely to find that most of the resources needed to finish textile products are already in the print shop. Post-work can be outsourced or completed in-house with a small investment in finishing equipment to achieve optimal results. For example, you can use either a home sewing machine or an industrial sewing machine (at a cost of about USD 700) as your initial finishing equipment. Furthermore, no post-processing equipment used in dye sublimation such as washer, steamers, or dryers is required. With HP Latex printers, your prints come out of the printer dry and ready to be shipped and installed.
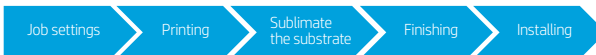
HP Latex Ink-based workflow

| Job settings | Printing | Finishing | Installing |

Dye-sublimation transfer printing workflow

| Job settings | Print image onto transfer paper | Load fabric and paper in calendar | Job settings in calendar | Calendering | Finishing | Installing |

Dye-sublimation direct printing workflow

| Job settings | Printing | Sublimate the substrate | Finishing | Installing |

3. Gain access to higher price/sqm

Often, when printing on a new media or substrate is emerging, there is a unique opportunity. Product demand increases, even with very few print service providers participating in the new market. As a result, the perceived value of printed textiles is high, enabling early adopters to command a higher price point. Textile is clearly differentiated from vinyl – it is easier to handle and transport, has a better environmental profile, is odorless[6], and has a premium appearance, touch, and feel.

4. There are still relatively few early adopters

There are still relatively few print service providers participating in the emerging temporary textiles opportunity. It takes time for print service providers to adapt and rethink strategies and investments in response to a new business opportunity. This slow adoption creates many immediate opportunities for print service providers who can address the opportunity without investing in new equipment or employees.

5. Easy user interface

If you are new to latex printing, HP Latex Printing Technologies feature an easy user interface to help you start printing on textiles as soon as possible. HP Latex Ink printers are also versatile printers, so you can continue printing all of the signage applications you currently produce, while adding textiles.

[6] Some fabrics may have some odor.

Recommended media for textile applications with HP Latex Inks

The following list of recommended media for printing textiles with HP Latex printers has been extracted from the Media Solutions Locator. For recommended media from HP, see the Media Solutions Locator. Using media listed in the table with printer settings and color profiles from the Media Solutions Locator enables optimal results with your HP Latex printer. Please consult the Media Solutions Locator to download already complete printer settings and color profiles.

Media Solutions Locator: hp.com/go/mediasolutionslocator

Light textile banners
Usage
Light fabric banners are banners with a weight of 250 g/m^2 or less that are commonly used indoors at high-end retail/POP locations, exhibitions and events for booths, stands and displays, and also for interior decoration like wall murals and curtains/drapes.

Value proposition
When printed on interior hanging displays and banners, light textile banners have an aesthetic appeal that other graphic materials lack. With a look and feel that is softer and more flowing, light textile banners are much easier to ship, transport, and handle.

Printing tips & tricks
The ink collector kit should be used with the HP Scitex LX800 Industrial and HP Latex 850 printers when printing on unlined porous textiles.

Media offered from different manufacturers for printing light textile banners with HP Latex printers.[7]

- HP Light Textile Display Banner
- Neschen AG - VariTex Deco Frame 250 B1 CA
- Aurich Textilien – DigiEco 3152FRN
- Lafayette – Campero
- Junkers & Müllers - Mediatex Tendo
- Georg + Otto Friedrich - 6608
- 3P + Verseidag - IQ-IJ675 Value Display FR

Heavy textile banners
Usage
Heavy textile banners are commonly used outdoors for promotions and advertising. They typically have a weight of 250 – 400 g/m^2.

Value proposition
Heavy textile banners create a visually pleasing and attractive, different look for display purposes. They also have the advantage of being lighter and are hence easier to handle, transport, and install than alternatives.

Media offered from different manufacturers for printing heavy textile banners with HP Latex printers.[7]

- HP Heavy Textile Banner
- Neschen AG - SolvoTex TCS 300 Plus 2
- Junkers & Müllers - Mediatex Heavy Banner
- 3P + Verseidag - Country Cotton

For more information on compatible media see: hp.com/go/mediasolutionslocator

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[7] The media is offered by third-parties and may be subject to third-party warranties.

Flags
Usage
There are many different types of flags including; traditional free flags, drop flags, and ground anchored flags or so-called tear-drops. Flags for signage are primarily used for outdoor applications to display corporate names or messaging. Flags can also be found indoors, for example in shopping display windows or malls.

Value proposition
Flags are eye-catching applications that look very attractive, especially in natural elements with the wind playing in them. Teardrops have the advantage of capturing attention while using very little floor space. Teardrops also stretch over the ground-space where they are positioned, and are suitable to place in locations like entrances.

Printing tips & tricks
The ink collector kit should be used with the HP Scitex LX800 Industrial and HP Latex 850 printers when printing on unlined porous textiles.

Media offered from different manufacturers for printing heavy textile banners with HP Latex Printers.[8]

• HP Heavy Textile Banner
• Georg + Otto Friedrich - 6043 KFL
• 3P + Verseidag - IQ-IJ422 TruColor Flag
• Neschen AG - Solvotex PES flag plus 2

Textile backlits and lightboxes
Usage
Indoor and outdoor applications.

Value proposition
Backlits and frontlits that are printed on textile rather than vinyl provide a softer more premium textile look. Backlits made from textiles have the added advantage of being lighter, which facilitates the shipping (more cost effective) and also the mounting of the application. The backlit is less likely to bulge from the weight of the material since textiles are light.

Printing tips & tricks
While printing backlit applications, a long thin lamp can be placed behind the output area to make it easy to assess the image quality – as it will appear in the final backlit or lightbox application.

Backlits generally require high quantities of ink to achieve good image quality when exposed to a light from behind.

Media offered from different manufacturers for printing heavy textile banners with HP Latex Printers.[8]

• DHJ International – DHJ Skin
• 3P + Verseidag - IQ-IJ687 Value Real Backlit FR
• Georg + Otto Friedrich - 7019LUX

Canvas
Usage
Indoor applications.

Value proposition
Canvas is used to print images to create a modern work of art, and also used as backdrops or canvas panels in retail outlets and advertising.

Printing tips & tricks
Canvas is generally capable of good ink absorption. For best results, print with a maximum ink coverage (250% for the HP Latex 800 series; a high ink level for the HP Latex 200 series.)

Media offered from different manufacturers for printing light textile banners with HP Latex printers.[8]

• HP Satin Canvas
• Aurora Specially Textiles Group - AC Canvas Semi-Gloss
• Sihl Digital Imaging - 3482 SMART™ Canvas
• 3P + Verseidag - IQ-IJ011 Latex Canva

[8] The media is offered by third-parties and may be subject to third-party warranties.

Printers referred to in this document

HP Latex 200 series:

HP Designjet 25500 Printer

HP Latex 260 Printer (formerly the HP Designjet L26500 Printer series)

HP Latex 280 Printer (formerly the HP Designjet L28500 Printer series)

HP Latex 800 series:

HP Designjet L65500 Printer

HP Latex 600 Printer (formerly the HP Scitex LX600 Industrial Printer)

HP Scitex LX800 Industrial Printer

HP Latex 820 Printer (formerly the HP Scitex LX820 Industrial Printer)

HP Latex 850 Printer (formerly the HP Scitex LX850 Industrial Printer)

HP printing materials

HP has three textiles in the HP printing materials portfolio that are compatible with HP Latex printers – HP Light Textile Display Banner, HP Heavy Textile Banner, and HP Satin Canvas. Both banner printing materials are recyclable through the HP Large Format Media take-back program.[9]

HP Printing Materials	Sizes	Description
HP Light Textile Display Banner	1067 mm x 50 m (42 in x 164 ft) – order CH006A	381 microns, 15 mil, 210 g/m², matte
	1524 mm x 50 m (60 in x 164 ft) – order CH007A	
HP Heavy Textile Banner	965 mm x 40 m (38 in x 130 ft) – order CG435A	381 microns, 15 mil, 282 g/m², matte
	1524 mm x 40 m (60 in x 130 ft) – order CG436B	
HP Satin Canvas	914 mm x 14,9 m (36 in x 49 ft) – order Q8838AE	420 microns, 16.5 mil, 370 g/m², satin
	1372 mm x 14,9 m (54 in x 49 ft) – order Q8783AE	
	1524 mm x 14,9 m (60 in x 49 ft) – order Q8833AE	

HP Light Textile Display Banner

Differentiate your offering with a recyclable[9] alternative to PVC for banners and displays. This flame-resistant[10] polyester fabric helps maintain high productivity and can be recycled through the HP Large Format Media take-back program.[9]

Benefits:

- Recyclable alternative[9]
- Polyester fabric alternative to PVC
- Dimensional stability
- Indoor, in-window display permanence 2+ years, unlaminated[11]
- Flame resistant[10]
- Competitive price

Applications:

- Indoor displays for trade shows and events
- POP displays and banners

[9] HP Large Format Media take-back program availability varies. Recycling programs may not exist in your area. See hp.com/recycle for details.

[10] B1, NFPA, and CA 1237 approved fire certifications.

[11] With HP Latex Inks. Interior in-window display ratings by HP Image Permanence Lab. HP predictions based on test data under Xenon-Arc illuminant — calculation assumes 6000 Lux/12 hr day. For more information, see hp.com/go/supplies/printpermanence.

HP Heavy Textile Banner

Differentiate your offering with this versatile, recyclable[12] alternative to traditional banner and display materials. With this flame-resistant[13] woven polyester material, you get excellent handleability, image quality, and the scratch- and tear-resistance you need to maintain high productivity.

Benefits:

- Recyclable[12] alternative to traditional banner and display materials
- Easy-to-handle, stitchable
- Scratch- and tear-resistant
- Display permanence 150+ years indoor; 1 year in-window, unlaminated[14]
- Flame resistant[13]
- Versatile compatibility

Applications:

- Trade show and event displays
- POP and retail displays
- Textile (fabric) printing
- Banners
- Interior decoration

HP Satin Canvas

HP Satin Canvas is a cotton-polyester blend that features a fast dry-time, crack-resistance, and outdoor durability. It provides high color brilliance, fade resistance, and the distinctive, high-quality touch of fine canvas. From photo reproductions to artistic banners, it's perfect for indoor and outdoor applications.

Benefits:

- High-quality touch
- Brilliant color
- Durable

Applications:

- Artistic banners
- Photo reproductions
- Fine art reproductions and window graphics

For more detailed product and ordering information see
globalBMG.com/hp

[12] HP large Format Media take-back program availability varies. Recycling programs may not exist in your area. See hp.com/recycle for details.

[13] B1 and NFPA approved fire certifications.

[14] With HP Latex Inks. Display permanence rating for interior displays/away from direct sunlight, by HP Image Permanence Lab. Interior in-window display ratings by HP Image Permanence Lab on a range of media including HP media. HP in-window predictions based on test data under Xenon-Arc illuminant. Calculation assumes 6000 Lux/12 hr day. For more information, see hp.com/go/supplies/printpermanence.

Flame retardants

Although the average person is probably unaware of flame retardancy standards and regulations, this is an area of increasing concern for theatre staff, touring show personnel, special event planners, and even trade show exhibitors. Ensuring the safety of the public means that anyone utilizing textiles in a public space, for example for stage drapery, theater curtains, exhibit booth design, and special event décor, needs to be aware of the potential for fire and take steps to reduce that risk to the greatest extent possible.

Flame retardants are added to different materials to reduce the risk of fire. The term "flame retardant" describes a function and not a chemical class. A wide range of different chemicals can be used for this purpose, and in fact, they are often applied in combinations. The variety of products is useful, because flame retardants are often specific to materials, and they cannot be easily interchanged.

Note that flame retardants are a type of surface treatment and not considered to be a coating.
Standards and Regulations

Unfortunately, it is not easy to navigate the maze of standards, regulations, and requirements regarding this issue. Surprisingly, there are no "official" regulations regarding flame retardancy of fabrics used in public spaces. Some countries, states, and cities, however, have developed their own standards and/or procedures:

• DIN 4102 (Germany) A1, A2, B1, B2, B3
• NF P92-50x (France) M0, M1, M2, M3, M4
• NFPA 701 (USA-National Fire Protection Association)
• C-SFM (USA-California)
• JFRA (Japan)

For example, HP offers flame-resistant textiles according to the following fire certifications:

• HP Heavy Textile Banner: B1 and NFPA approved fire certifications
• HP Light Textile Display Banner: NFPA, B1, CA 1237 approved fire certifications

For more information, please visit:
hp.com/go/latex