INTERIOR DÉCOR GUIDE
Opportunities with digital print

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Design on the cover:
Tecnografica Italian Wallcoverings

INTRODUCTION

" Decoration is the furnishing or adorning of a space with fashionable or beautiful things.

With digital print, it's getting personal. "

Trends in décor are constantly changing. Whether it's décor for commercial interiors such as offices, retail spaces, and hospitality suites, or in the home, these trends in design are calling for interiors to be more adaptable, more personal, and more dynamic than ever before. And, in our new world that demands the right to self-expression, this is no surprise.

From business and industrial environments, to the new wave in home design, the markets that are now exploring decorative applications are growing day by day, creating new and exciting opportunities for the Large Format Print sector.

This guide looks at the trends that are currently shaping the interior décor industry: for consumers, with their need for individuality, and for professionals, with their challenges to keep up with the on-demand, fast-turnaround economy. In this Interior Décor Guide, we explore how both brands and consumers are helping define growth in the sector. We take you on a journey through the current and future graphics landscape and highlight how Print Service Providers (PSPs) can tap into this diverse and lucrative market using our print solutions as a way of creating an entirely unique experience for your customers.

INTERIOR DÉCOR TODAY

The interior décor industry is showing no signs of slowing down in today's economy. For example, the printed signage market will be worth USD 54 billion in 2024[1]. In addition, some of the biggest growth sectors in design over many years have been in interior décor: wallcovering solutions ranging from digitally printed wallpapers to other bespoke printed décor solutions[2].

Spanning a number of different industries, today's interior decorators as well as consumers are completely focused on the way things look. However, when the design is center stage, it's important that the practical considerations behind the décor, such as the audience, the function, and the cost are not overlooked.

Décor for industrial environments, for example, is used primarily to motivate and engage a busy workforce. We also expect it to reinforce the company's brand's identity while, at the same time, make an impact on the customer and other guests. Printed décor solutions, including flooring, have been one of the fastest growing applications in this sector for many years, and continue to be so[2], making interior decorative applications an attractive business segment for PSPs.

Competition in the retail sector is driven by the desire to retain consumer loyalty. The sector is an excellent example of how design is used to create an experience. The fast-paced nature of retail introduces the concept of flexibility, allowing for spaces to be refreshed whenever necessary. The rise of omni-channel marketing has prompted retailers to rethink their approach to increasing customer loyalty as they seek to create a seamless retail experience across all channels. Retail trends are now a major driver behind the increasing demand for printed signage.

In hospitality, the brand is everywhere. Although we may not notice it straight away, every detail—from the decorative table coverings and restaurant menus, to the wall coverings and awnings—is used collectively to tell the brand story. Where visual prompts help create an immersive experience for consumers, Large Format printers with the right technology give PSPs the ability to bring a creative vision to life.

When it comes to consumers, the focus is on making their homes more attractive and, above all, personalized and unique. Our desire to have a space that represents us, whether this is through a unique wallcovering, our own designed canvas, or a custom kitchen backsplash, is driving what we are prepared to spend on highly personalized interior elements. Digital printing was made for the consumer age! The trends we're seeing today will shape future growth in this exciting sector.

1: Smithers Pira, 2019: The Future of Printed Signage in an Eletronic World to 2024
2: Smithers Pira, 2019: The Future of Inkjet Printing to 2025

Study
14'-0"x12'-0"
12' ceiling

Foyer

Covered Porch

pantry

Pwdr

Utility

DN

KITCHEN/
DINING ROO
12'-10" x 12'-4"

BATH
10'-6" x 5'-0"
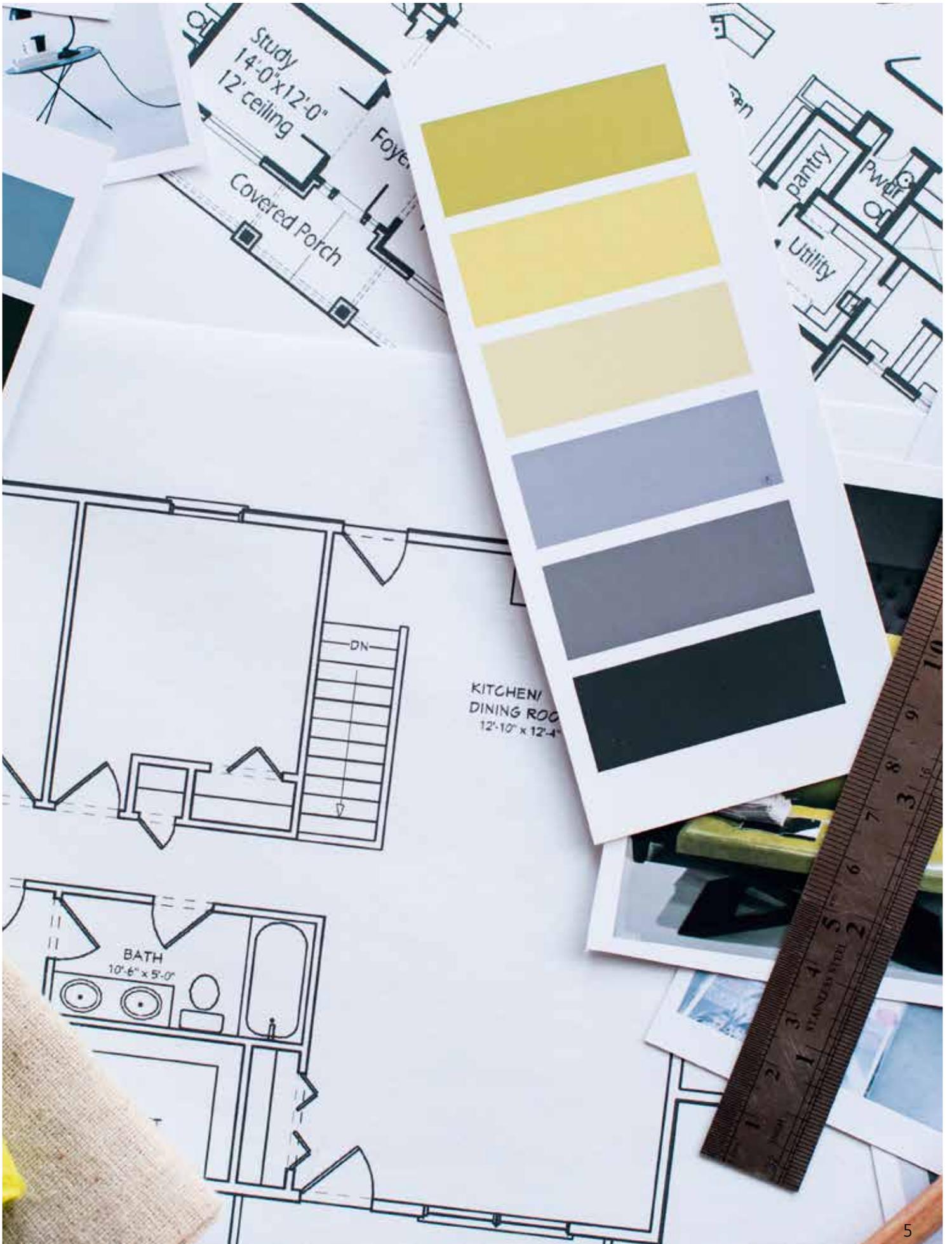
THE OPPORTUNITIES
OF DIGITAL DONE RIGHT

Digital printing offers almost infinite creative possibilities for wallcoverings, murals, and other large-scale décor elements.

While the analog wallcoverings industry has been stagnating (or even declining in some regions) over the past decade, digitally printed wall décor has been rising steadily. This sector continues to represent a golden opportunity, with forecasted double-digit growth in the coming years.

Forecasted worldwide wallcovering digital print volumes[1]

Y-axis: Mio m² printed — 0, 50, 100, 150, 200, 250
X-axis: 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
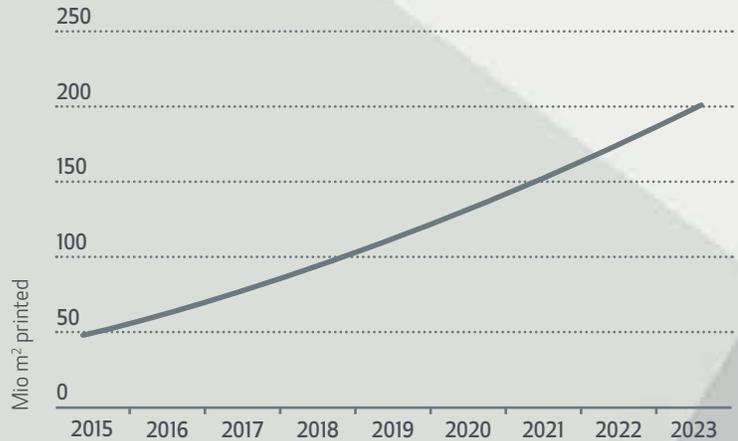
1: Smithers Pira, 2018: The Future of Decorative Printing to 2023

"
For digitally printed wallcoverings the benefit is for short runs, and this new capability is changing the sector.[1]
"

"
Moreover, digital can break free from the convention of repeated patterns, particularly for feature walls.[1]
"

In comparison with traditional analog technologies such as rotogravure, digitally printed wallpaper offers the opportunity to have short, and even customized, runs.

Digital print addresses the need for short runs
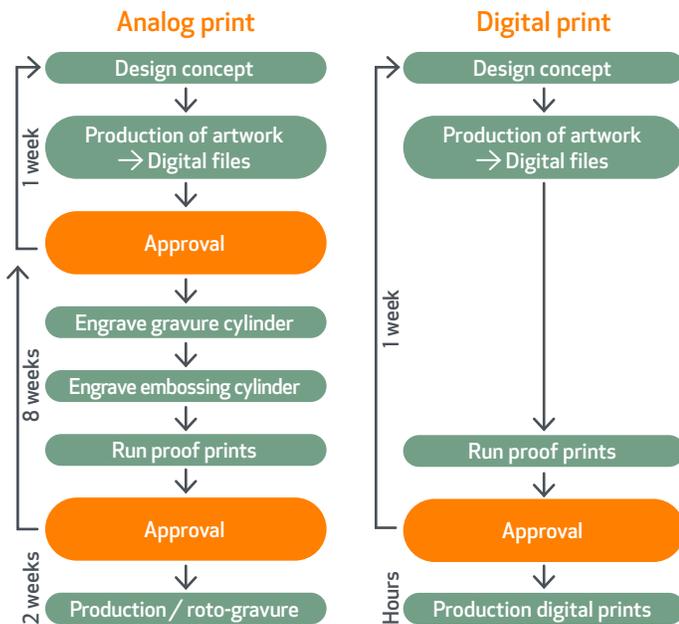
With the right infrastructure and skill set, wallpaper specialists and PSPs can respond to the demand for tailor-made services, without the extensive investment in setup time and materials before the first print is produced.

Creativity

Digital wallcoverings are empowering interior designers and creatives to think literally "outside of the box": Traditional wallcovering décors and images have always been limited by the so-called "bounding box" of analog equipment. The bounding box is the reason the pattern on the wallcovering needs to be repetitive.

Typical repetitive wallpaper pattern

Typical out-of-the-box design

Advantages of out-of-the-box design:
- Abstract, non-repeating designs
- Murals or feature walls: designs that cover a complete wall
- High-resolution photographic images
- Flexibility in panel width, even up to a seamless wallcovering
- Custom designs, e.g. picture walls of a personal holiday picture
- Wall stickers, super-sized graphics and geometrics
- On-trend gradient effects

The interior design world is also looking to create a more customer-centric user experience, including making wallcoverings and décor elements faster and easier to acquire, whenever the mood strikes.

Customer expectations can be high: incredibly short lead times, and outstanding quality.

Interior design companies are now also able to respond to the customer's desire for individuality, by giving them the opportunity to design their own coverings.

Digitally printed wallcoverings are ideally suited to these market conditions. Rapid setup and high production speeds make them ideal for everything from low-volume specialist productions, to high-volume runs for commercial clients with multiple venues.
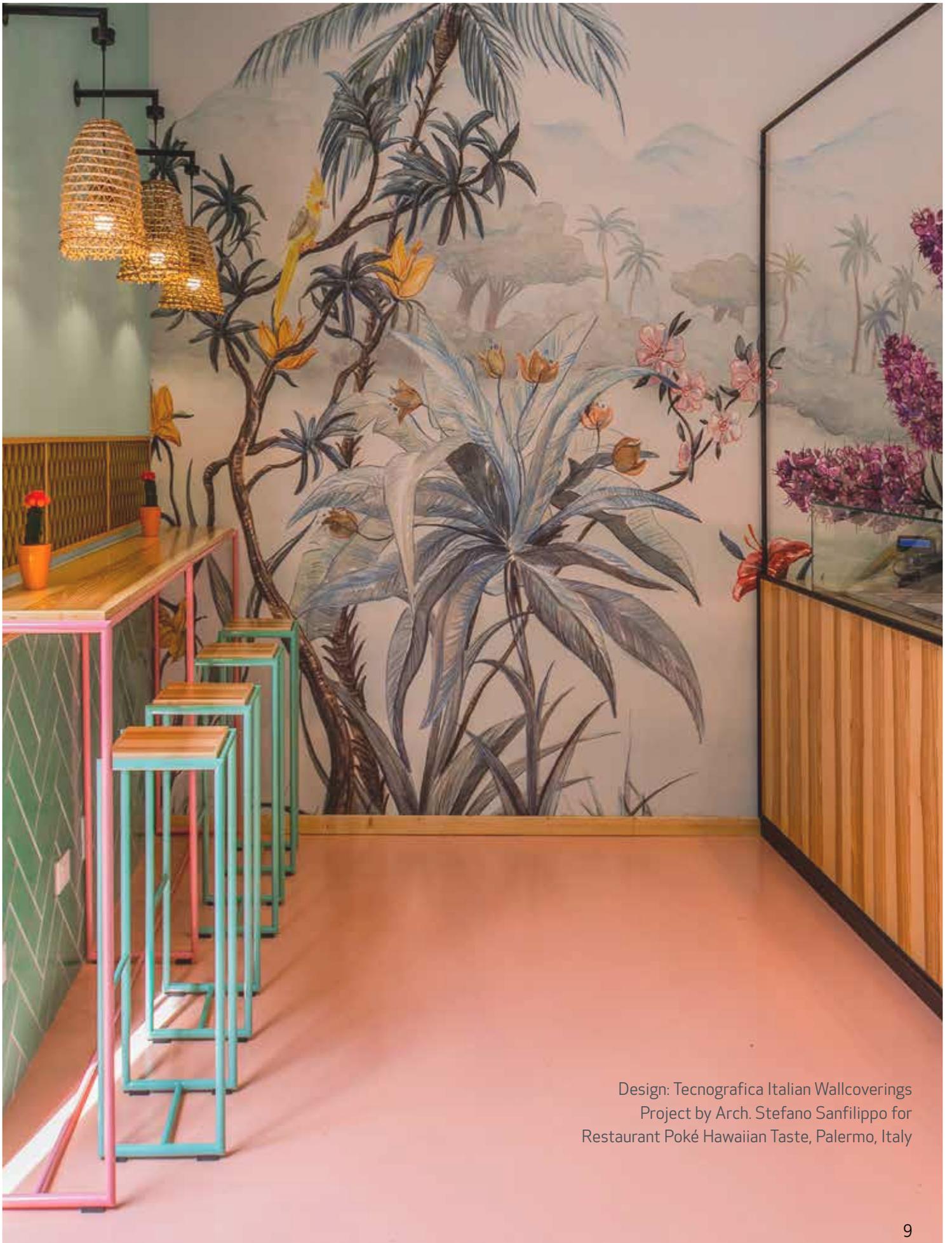
Design: Tecnografica Italian Wallcoverings
Project by Arch. Stefano Sanfilippo for
Restaurant Poké Hawaiian Taste, Palermo, Italy

CHALLENGES & TECHNOLOGY

The world of digital wallcoverings offers a golden opportunity for PSPs, but it also poses some real challenges.

In today's market of interior décor, it is no longer just about the classic wallpaper. Interior designers are embracing the vast opportunities out there, and want to print on a wide variety of substrates: coated and uncoated; woven and non-woven; vinyl and PVC-free; self-adhesives and pre-pasted; with a variety of embossed surfaces for light or heavy usage.

What are the challenges?
Durability
Indoor applications need to have a typical lifetime of several years. For this, the following properties are essential:

- Non-fading and acid-free
- Washability
- Noncracking
- Scratch resistant

Ease
Unlike long-term indoor applications, event graphics are very short term. Here, critical factors include:

- Easy to mount
- Easy to remove

Quality
Whatever the application or use, consistent, outstanding quality is a must. Consumers and businesses want beautiful wallcoverings that will stun. This challenge requires:

- An excellent color gamut
- Color consistency: every panel or part of a job needs to be exactly the same colour
- Color continuity: prints for the same client need to look precisely the same, regardless of when they were produced—essential for brands
- Perfect dimensional stability, in the case of panelling or when wallcoverings are made to an exact size

The choice in printing technology also depends on the type of wallcovering required.

You will recognize the symbols below, which are put on rolls of wallcoverings you find in any do-it-yourself shop. They represent the material's characteristics with respect to washability, lightfastness, removability, etc.
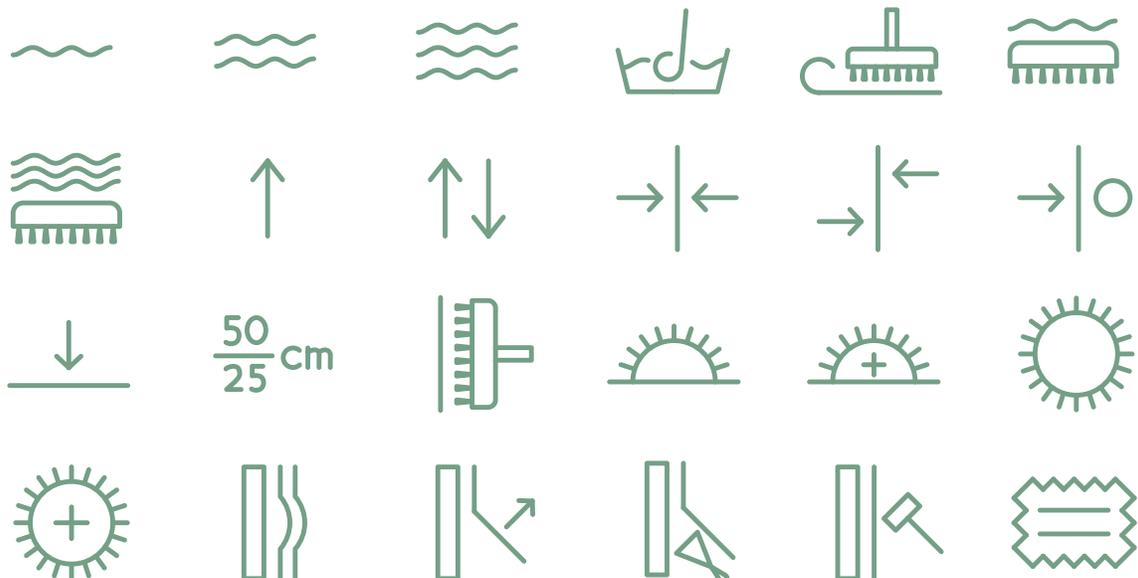
These challenges are addressed differently by the different printing technologies. Each technology has its own positive characteristics, but also its own limitation with respect to the properties required of the final product. For example, washability and scratch resistance.

Traditionally, the digital landscape has consisted of four classic printing technologies:

Dry toner technology
This technology has the advantage of easy inline finishing and is odorless. However, the machines represent a significant investment. The applications produced are quite scratch sensitive and are limited to maximum media width of approximately 20 inches. Moreover, due to the very high heat that is inherent to this technology, it cannot print on vinyl media.

Latex technology
Latex prints are odorless and the print engines do not have the limitations in panel widths as dry toner technology does. However, latex output tends to be quite scratch and water sensitive. Due to the evaporative ink technology, color consistency and dimensional stability can also be an issue, resulting in panels that do not match.

Traditional UV technology
The advantage of this solution is the robustness of the prints it produces, for example in terms of scratch and water resistance. The consistency of traditional UV prints is also quite good. However, traditional UV ink is never completely odorless and can lead to headaches if used indoors. In addition, the matte result can produce rather dull colors, making it a less attractive choice for interior décor specialists.

Eco-solvent technology
By contrast, eco-solvent prints have very vibrant colors, although the output tends to be quite glossy. Moreover, eco-solvent prints are also not odorless, and additional drying time is required before any further processing steps can be carried out. This technology is rarely used anymore.

Dry toner	Latex	Traditional UV	Eco-solvent
+	**+**	**+**	**+**
Odorless Inline finishing	Odorless Flexible panel width	Robust prints Consistent colors & dimensions	Vibrant colors Flexible panel width
–	**–**	**–**	**–**
Scratch & water sensitive Limited panel width No vinyl media High initial investment	Scratch & water sensitive Dimensional & color inconsistencies	Odor Dull matte colors	Odor Drying time High gloss

UVGEL

UVgel is a technology that combines the advantages of the traditional ink technologies while, at the same time, eliminating many of their limitations.

Uncoated & vinyl media

Flexible panel width

Vibrant matte colors

Consistent colors & dimensions

Odorless

Robust prints

UVgel has been designed to print on the widest variety of different types of media and delivers the productivity, quality, speed, versatility, and almost unlimited creative possibilities today's wallcoverings market demands. Since the UVgel prints are instantly dry and cured, they are suitable for immediate post-processing, such as precision cutting.

For the interior décor market, the following properties of UVgel play a crucial role:

Abrasion robustness
Printed interior décor is found in numerous places, including high-traffic environments. UVgel is a highly robust ink technology that is able to withstand scratches and scuffing better than any other technology and is less prone to damage during post-processing and installation.

Color consistency and dimensional stability
When the printed images fill an entire wall, they are mounted in several panels, hung side by side. These individual panels all need to match each other and align perfectly.

They need to be exactly the same in terms of:
- **Size:**
  Even with a standard room height of, for example, three meters, a fractional difference in printed panels will show. As UVgel does not use any heat in the printing process, the media does not deform, safeguarding dimensional stability.

- **Color:**
  UVgel technology has a highly controlled dot placement for the gel ink droplets, with no dot gain and, therefore, outstanding color consistency and continuity.

## Typical wallpaper pain points with traditional technologies

Wallpaper already scuffed during installation

Glue residue stains
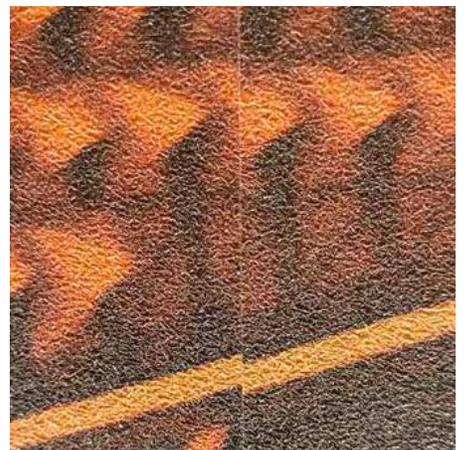
Two panels not matching up due to size differences
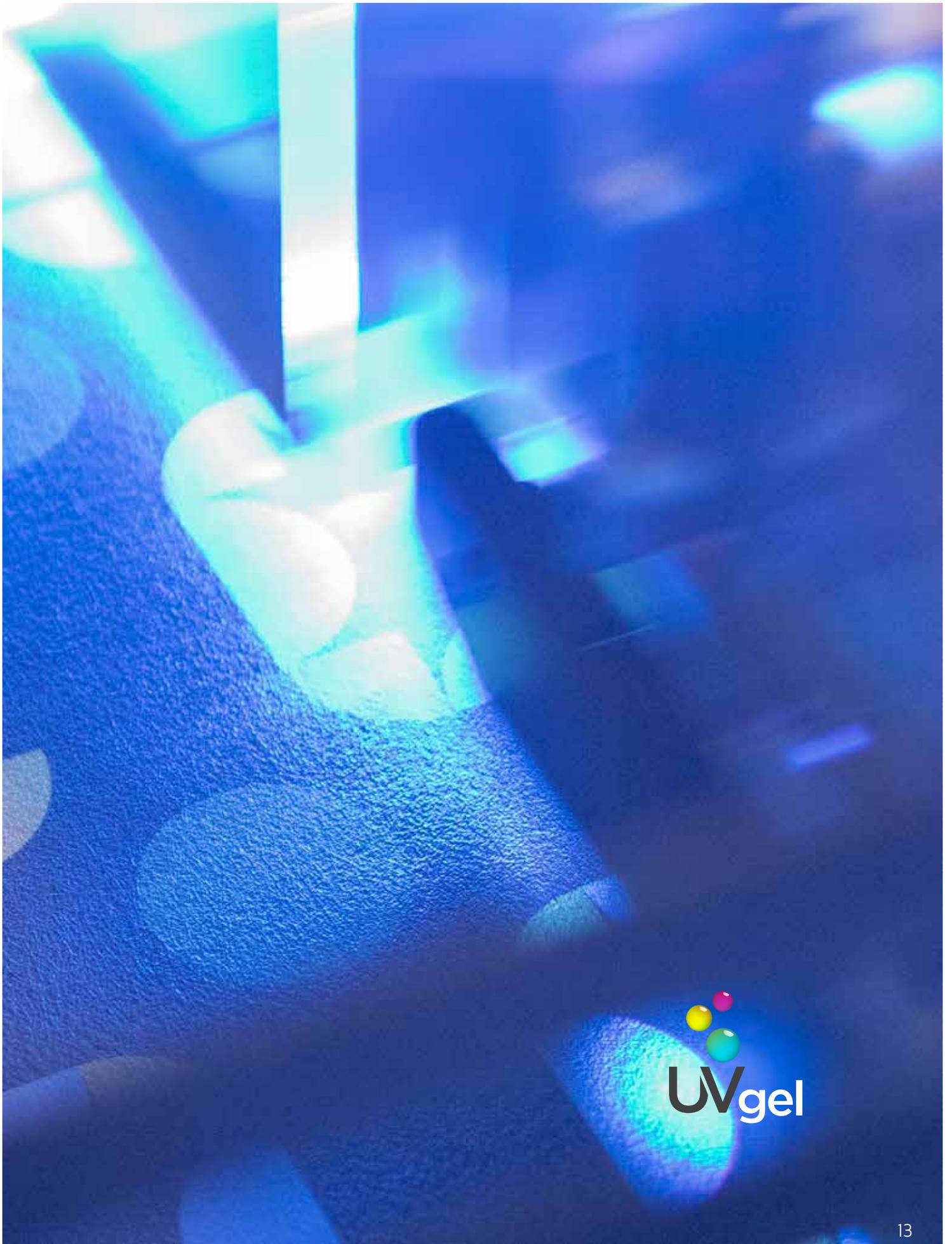
Rich colors; and sharp details

With precise dot placement with no dot gain, UVgel prints have outstanding color quality and consistency from a wide color gamut, with sharp details and strong saturation for dark colors.

Velvety matte finish

UVgel ink drops are "pinned" to the media instantly, prior to LED curing, resulting in a stunning velvety matte finish.

Odorless

The odorless UVgel prints are certified for immediate indoor use, even in sensitive environments such as schools and healthcare facilities.

Repeatability

With UVgel technology, dot placement is controlled, ensuring consistently repeatable images over time and over different machines and locations.

Low heat media stability

The low-temperature UVgel printing process protects against stretching or deformation, producing dimensionally stable output every time.

Media

UVgel technology supports a vast range of printable substrates, including vinyl and un-coated non-wovens.

Robust prints

The robust UVgel prints are scratch and scuff resistant, making them less susceptible to damage during mounting and use.

Media versatility

UVgel technology can work with the widest range of media. Unlike dry toner technology, for example, UVgel works perfectly with materials such as vinyl and PVC-free. And unlike evaporative technologies, UVgel technology can print on uncoated and porous media at full production speeds. FLXfinish is a unique curing concept that produces an even and consistent matte effect with vibrant colors on almost any media.

Safety and sustainability compliance

Regulatory requirements for wallcoverings cover everything from CE marking to VOC emissions, heavy metals, and washability. UVgel technology delivers a large color gamut, similar to eco-solvent inks, but combines this with the environmental benefits and safety profile of latex inks. The odorless prints are certified by UL GREENGUARD Gold for immediate indoor use, even in sensitive environments such as schools and healthcare facilities.

In addition to the stunning results UVgel produces, the printers behind the technology offer further benefits, including:

Ease of use

UVgel printers are easy to operate and support the unattended and automatic delivery of the finished output.

Productivity

Fast output speeds and short drying times enable quick finishing straight after printing.

Automated maintenance

Automated daily maintenance ensures consistent print quality and high uptime.

THE UVGEL WALLPAPER FACTORY

Mass-customized automated wallpaper production
Designed for maximum throughput, high quality, and to run all day long, the UVgel Wallpaper Factory is a fully automated production facility for digitally printed wallpaper.

The UVgel Wallpaper Factory is a fully modular workflow, consisting of:

1. A motorized Fotoba Jumbo Roll JRL 170 media feeder
2. The Colorado 1650 Large Format roll-to-roll printer
3. A Fotoba Cutter XLD 170WP, cutting the output to the desired specifications in both the x and y direction
4. A Fotoba Rewinder REW 162 with embedded taping unit to rewind the printed and cut wallpaper, ready for immediate delivery and application

The high-volume media feeder, in combination with the productive Colorado printer, delivers outstanding production throughput.

The Colorado open interface enables the UVgel Wallpaper Factory to also be integrated into existing workflows, giving the option to choose input and output solutions from different suppliers.

The UVgel Wallpaper Factory runs fully automated and unattended: from the bulk-sized media input straight through to the finished rolled output.
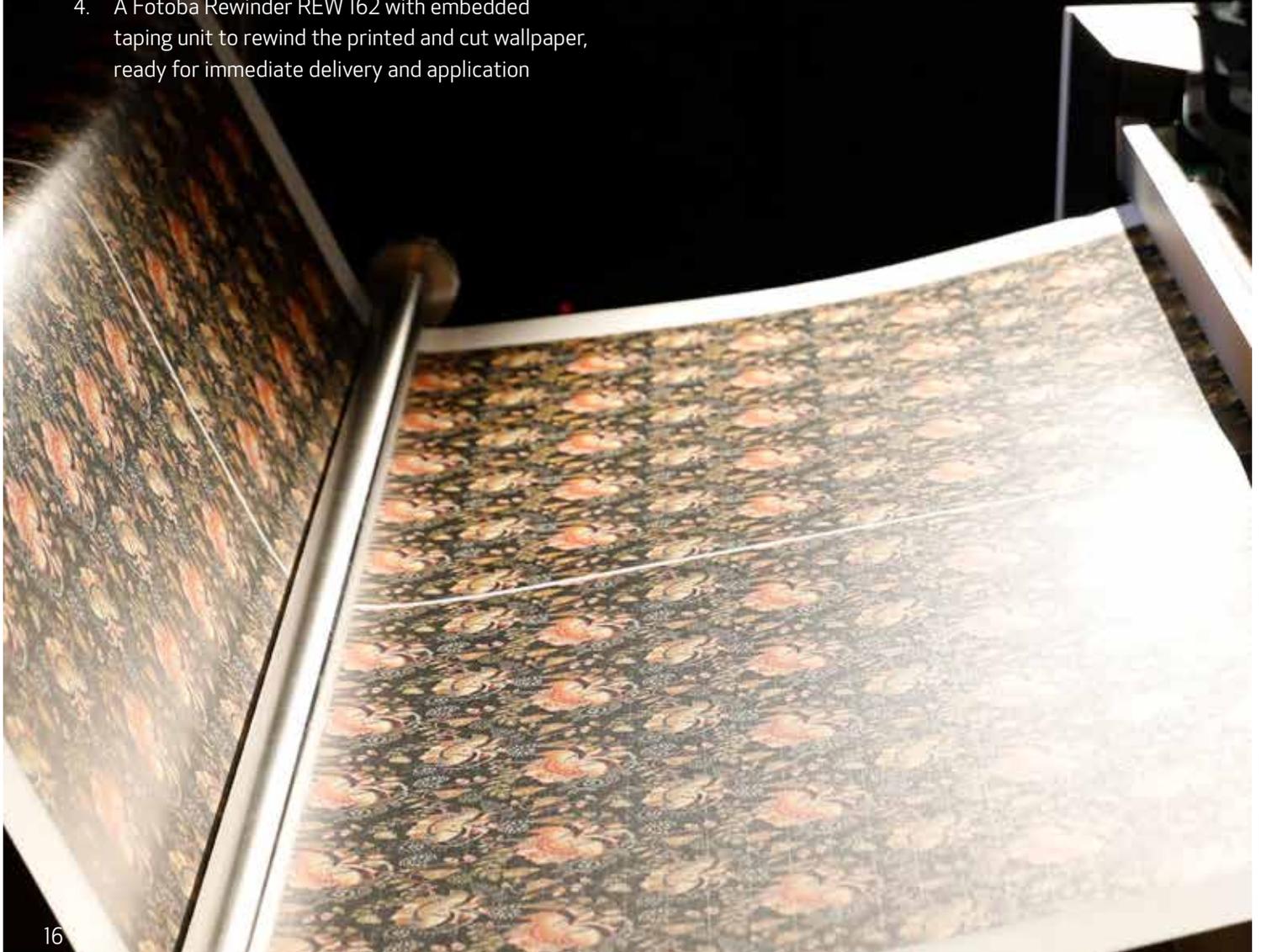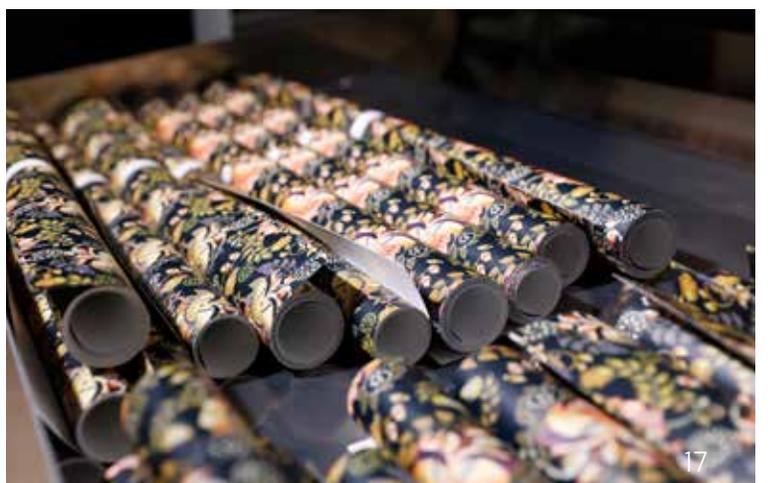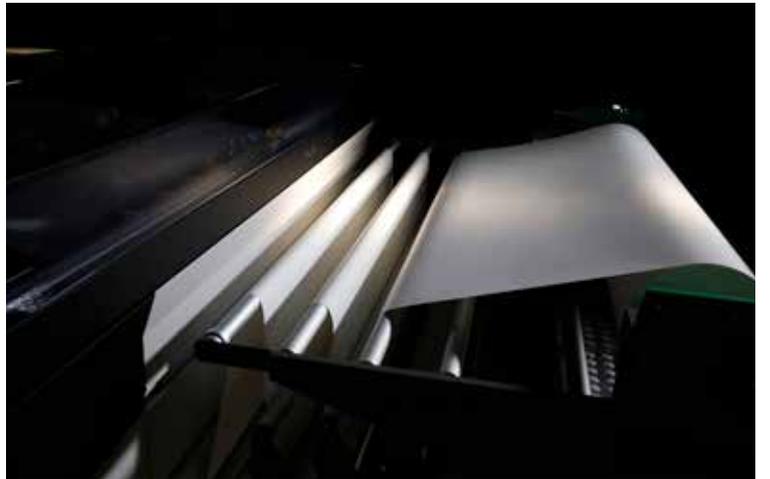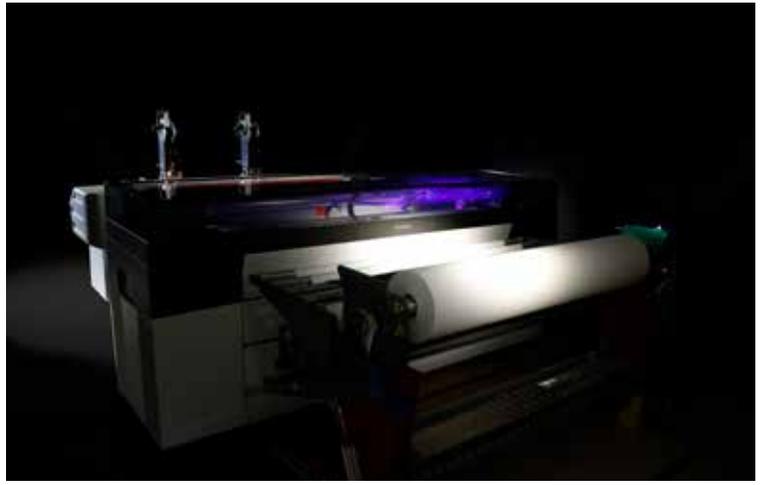
REFERENCES

Group Imaging Inc.
Want proof that the Canon Colorado printer and Canon UVgel technology can help eliminate the need to compromise between quality and productivity? Just ask Jeff Burris, CEO of Group Imaging Inc. in Mesa, Arizona, a company focused on creating wide-format wallpaper, murals, and large-scale wall graphics for demanding children's environments in venues such as churches and youth camps nationwide. We did.

The 5-country Wall Covering Challenge
Illustrating the unique advantages that UVgel brings to the interior décor market, we designed an image for a wall that consisted of five panels in a uniform red color, with logos and marks that required perfect color matching and dimensional stability. They were printed on five different Colorado printers, by different customers, in five different parts of the world. Take a look at the results.

UVgel proof point video wall covering
Watch how UVgel technology allows you to produce beautiful matte wall coverings, that are dimensionally stable, scratch-proof, and able to withstand cleaning.

UVgel technology white paper
Learn more about the changing roll-to-roll market and how UVgel technology can help you to stay on top of your game:

Canon Solutions America LFS Imaging Supplies
Canon offers an extensive media range, designed for excellent performance with a wide variety of substrates — coated and uncoated; woven and non-woven; vinyl and PVC-free; self-adhesives and prepasted, with a variety of embossed surfaces for light or heavy usage.

Design: Tecnografica Italian Wallcoverings
Photo: Riccardo Gasperoni
Furniture: Studio Tenca & Associati

Canon

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