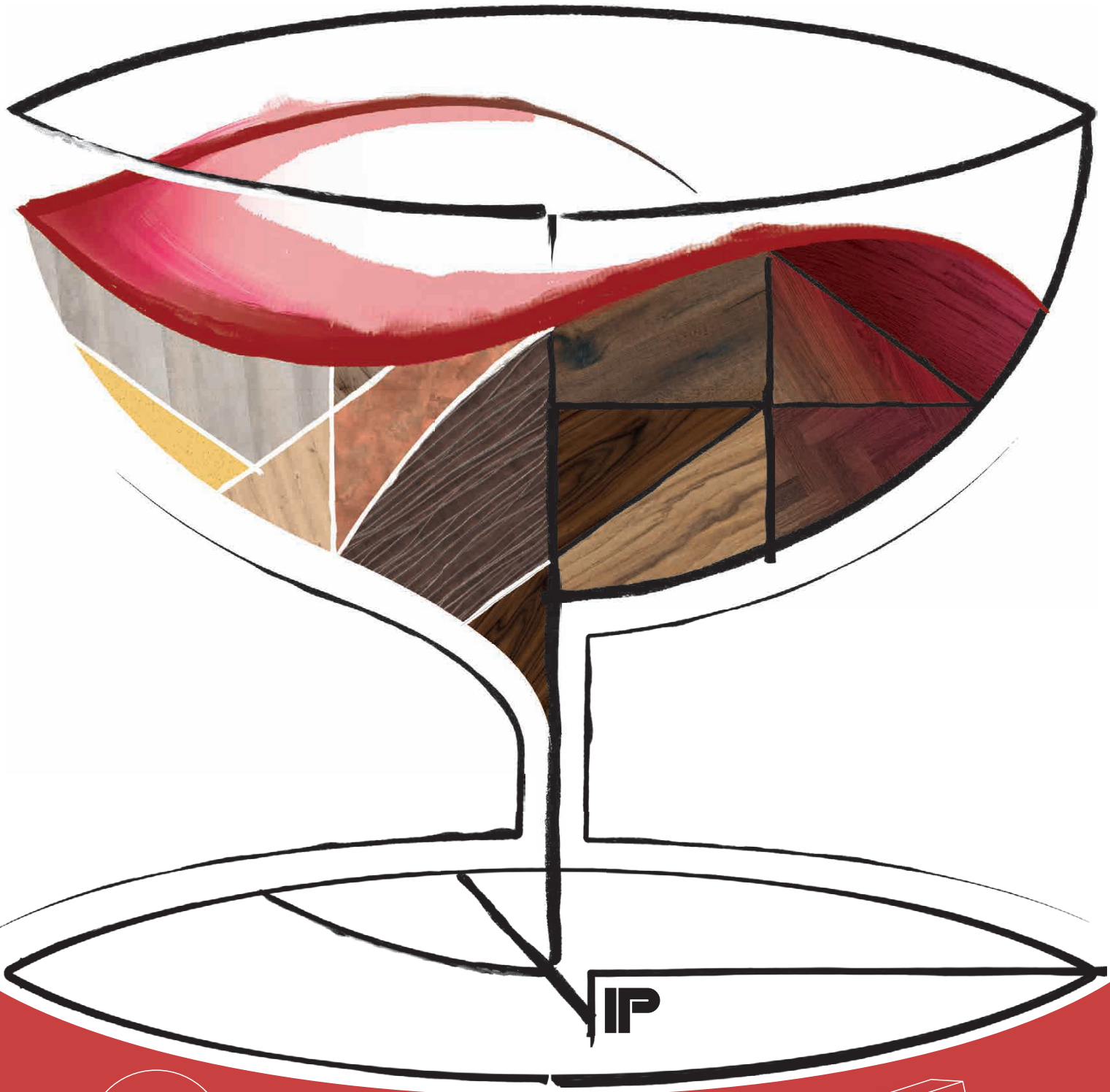


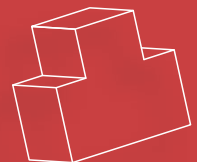
CONVEX

— International —















Special
Feature

Backstage of Décor Design
We shape the future of interior design





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Notice from the Public Relations Division

CONVEX International is an internal magazine for the Toppan Group. The title, CONVEX, is based on the meaning of the Chinese character “凸”, which is pronounced *totsu* in Japanese and is the first character in the word *toppan*. In the same way that a convex lens focuses light at a single point, the name of the magazine expresses Toppan bringing together its “vibrant knowledge and technology.”

Cover Photo

Designed by the Interprint Italy team

We metaphorically represented the Italian division as a container of ideas and decors. There is nothing more Italian than a glass of wine.

Artist

Matteo Basei is a freelancer who often works with us on graphic, video and photo projects.

Special
Feature

Backstage of Décor Design

We shape
the future of
interior design

Interprint, which became part of the Toppan Group in November 2019, is one of the leading décor printers in the world. Their innovative and creative décors decorate the surfaces of furniture, flooring, and fittings with wood-based designs that accentuate interiors. This feature introduces the captivating décor designs of Interprint.



Interprint's designers draw inspiration from nature in order to bring peace and calm to everyday life and urban landscapes. That is why wood is their source of inspiration, and why the décor materials they create have high-quality designs and features with attention paid to attractiveness and texture. A range of patterns are used for building materials, such as (A) stripes, (B) flowery, (C) knots, and (D) light and dark areas.



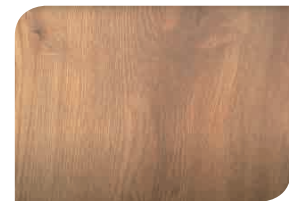
A Stripes



B Flowery decors



C Decor with or without knots



D Light and dark areas



Wood-patterned building materials are 2D, but the woods were originally 3D.

Column 1 Forests



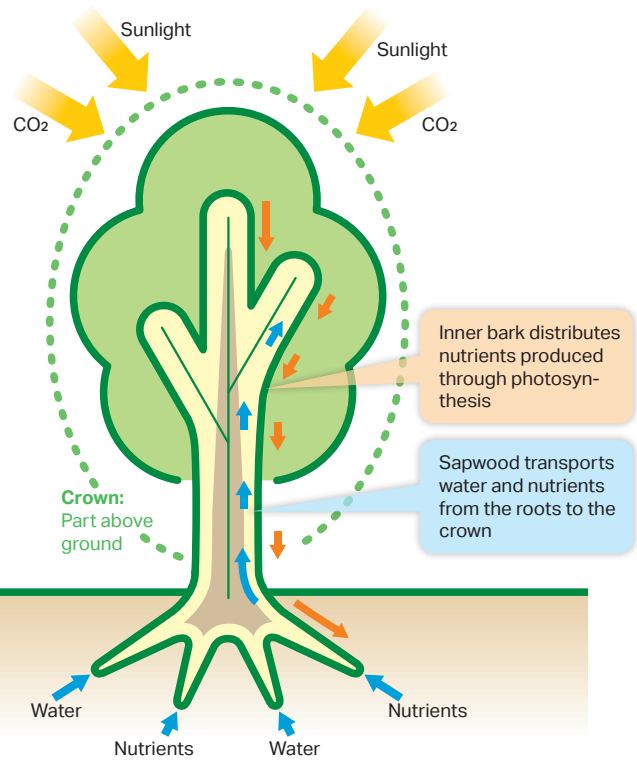
Forests may consist of tall trees, medium to short trees, and/or undergrowth, with variations between softwood and hardwood trees. Maintenance requires thinning, pruning of lower branches, and other practices. Forests help to not only protect various living organisms, prevent global warming, and retain water but also bring relaxation and peace to people.



What stories do the patterns tell?

Patterns reveal the conditions in which the tree grew. Trees are found in forests. The cross section of a tree appears differently depending on where it grew, such as in the middle of a forest or on the edge, adjacent to a road.

Trees need nutrients, water, and sunlight to grow, and branches stretch out in search of sunlight. Therefore, trees in the middle of a forest may have fewer branches, while those on the edge may have many branches on one side. A standalone tree has numerous branches as it has plenty of space to extend in all directions.

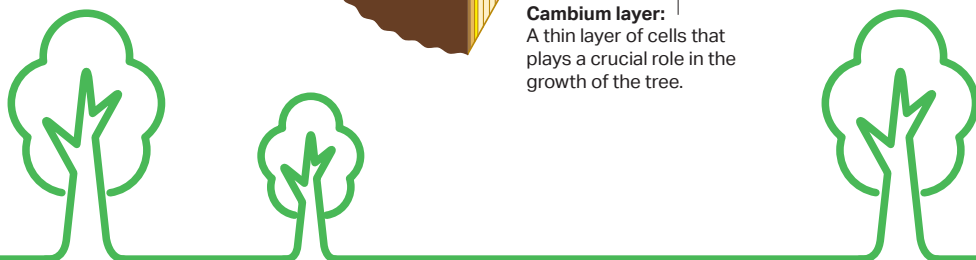
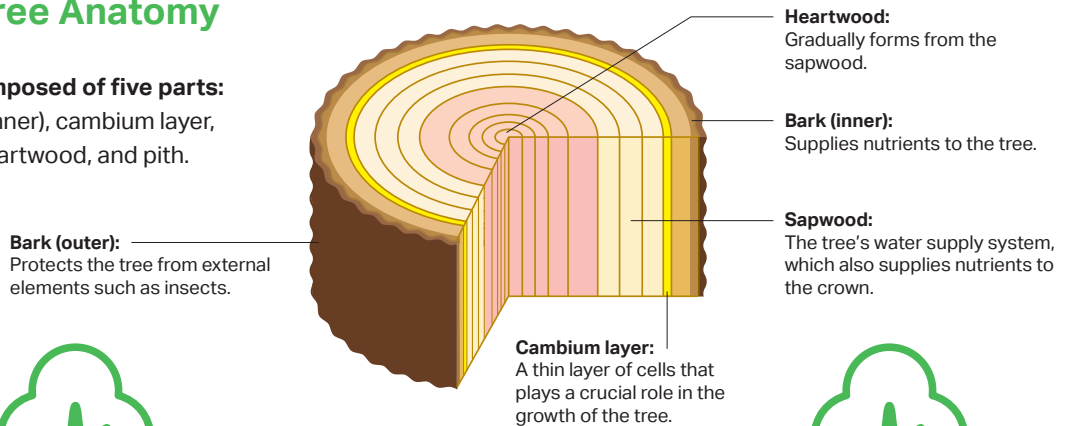


It is interesting to imagine the conditions in which a tree grew by observing the wood's shadings, annual rings, and shape and number of knots. It also serves as inspiration for the design of décor materials.



Column 2 Tree Anatomy

A tree is composed of five parts: Bark (outer/inner), cambium layer, sapwood, heartwood, and pith.



From WOOD to DÉCOR

How a 3D wood turns into a 2D pattern

1st STEP Tree Selection and Processing



Choosing a tree is one of the most important steps. As the cross section of a live tree cannot be observed, choosing trunks is a challenge. This felled tree was oak. A 250-year-old oak was chosen.



The trunk is cut with a band saw. This band saw, manufactured in Germany in 1956, can slice trunks with a 1-meter diameter.



This trunk will be sliced into 35-millimeter thick planks.

Q1: You turn wood into décor using digital technology. Can you tell us what you like most about your job?

The best thing about my job is being at the starting point of décor! My passion is to get to know the original material by using all my senses and to learn about its history.

Q2: Please tell us your favorite type of wood and the reason.

So, it's difficult for me to make a decision. From a purely visual point of view, I would currently choose Ruster (elm). The curves in the grain, especially in sideboards, are very special.



Meet the
Wood Professional

Fabian Kraft

Column 3 Annual Rings

Annual rings, also known as growth rings, are concentric circular patterns that appear in the cross section of trees in temperate to cold regions. A new ring is added each year. The number of annual rings indicates the age of the tree.



2nd STEP Drying

The 35-millimeter thick planks are air dried for 18 months to maintain the lumber size. After 18 months, the lumber has 20% moisture content. The planks are then left in a drying room for two weeks to achieve a suitable moisture content of 8%.



3rd STEP Cleaning and Polishing



The dried oak plank is cleaned of stains created by tannic acid. Special woodworking detergent is used for cleaning. The wood is scrubbed to remove the tannic acid color. After washing with water and drying, the plank is polished with an automatic brush. Saw-tooth grooves are added.

Column 4 Types of Wood

Many types of wood are used for décor design. Hardwoods include elm, ash (Oleaceae family), chestnut, beech (broad-leaved tree), and teak (Lamiaceae family). Softwoods include cedar, hinoki cypress, hiba cedar, and pine.



Chestnut



Elm



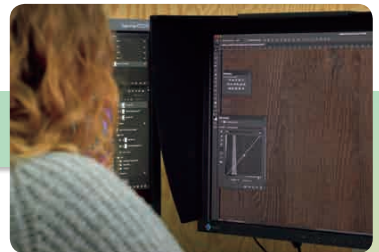
Hinoki cypress

4th STEP Coloring

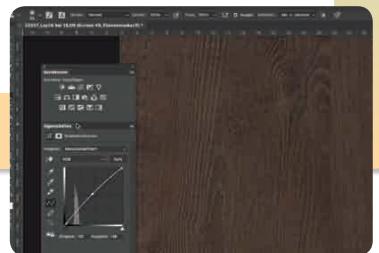
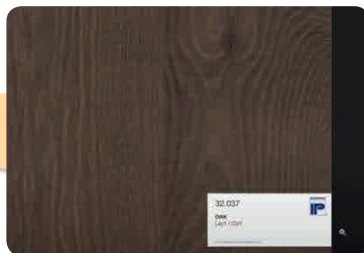
Wood stain is used to add color and bring out the woodgrain. A generous amount is applied to the surface and soaked in. Excess wood stain is removed from the surface for an even coating. Lastly, the plank is polished with wax. It is now ready for use.



5th STEP Digital Image Processing



The plank is scanned and digitized. The surface is scanned using a large high-resolution scanner. The data is then processed. The wood's look and texture are reproduced in high quality. This is Interprint's décor design.



Meet the
Media Designer

Janina Hempert

Q1: What do you make a point of doing when you digitally process images?

It's important to represent the material used as well as possible. This can be achieved with the optimal use of lighting during the scan or some nice coloring that suits the décor the best. In the whole process, we always keep the customers preferences and wishes in mind.

Q2: Please tell us about your strengths.

My strengths are the seamless retouching of the décor data and the creating of renderings.

Q3: Please tell us your favorite type of wood and the reason.

My favorite wood species is oak. I like the timeless character and the warm atmosphere it can give a room.



INTERPRINT *in Italy*

Maurizio



As Managing Director I have the pleasure and the honour to coordinate a fantastic, smart and motivated team. Together we can support our Interprint locations around the world (especially Asia and China, Brazil, Turkey and Russia) in developing décors, setting colour collections and matching the décors with perfectly-fit finishing press plates, thus providing a 360-degree style consultancy for surfacing solutions.

Interprint Italia is a branch of Interprint GmbH located in Italy near Lago di Garda, one of the most charming natural environments in Italy. Due to the strategic position between the main furniture districts and Milan, the area has the highest concentration of design studios and permanent showrooms in the world, so our activities benefit from an extraordinary flow of information about trends and style solutions.



This page was created by the Interprint Italy team.

Backstage of Décor Design



We collect and process all the inputs from the industry through the highly-professional work of trend scouting and transform them into decorative designs in our laboratory (both digital and rotogravure). This work is led by an innovative team with 20 years of experience. As sales office, we cater to the Italian market both for melamine paper (over 75% of our sales are made up of custom size décors) and finish foil, and supply over 80 million square meters/year (up to 2022) mainly for IKEA.



Giordana

Q1: How would you define your working environment?

G: It is dynamic and welcoming at the same time. The culture of our location is to make the customer feel at home and everything we do is highly creative and flexible.

Q2: What do you like most about your job?

G: Years of experience have allowed me to establish an excellent relationship with our customers. At this point of my career I'm able to understand their needs and successfully provide them personalized proposals for an optimal service.

Q1: You are the longest-serving employee at Interprint Italia. How has your work evolved over the years?

M: Over the decades we have gone from being a representative office for sales in Italy to being a design and support office for all other locations internationally, so my skill set has evolved and been enriched by multicultural interactions.

Q2: Your duties are both operational and creative. With which do you identify yourself more?

M: I consider both to be fundamental parts of my work. The routine operational activities are alternated with creative and open tasks, and together they give me the perfect balance.



Manuela



This page was created by the Interprint Italy team.



印刷博物館
PRINTING MUSEUM TOKYO

-SERIES-
PRINTING MUSEUM,
TOKYO
02

Gutenberg & Letterpress Printing – Printing Technology that Changed the World

Entrance to the Printing Museum, Tokyo

What is Letterpress Printing?

Johannes Gutenberg, a native of Mainz, Germany, invented letterpress printing in the 15th century. Although movable type existed in East Asian countries such as South Korea and China before this time, Gutenberg was the first to develop letterpress printing technology as a practical mass-production system equipped with metal movable type, ink, and printing presses. It spread across Europe in the blink of an eye, becoming the foundation for the accumulation of human knowledge in the form of books.

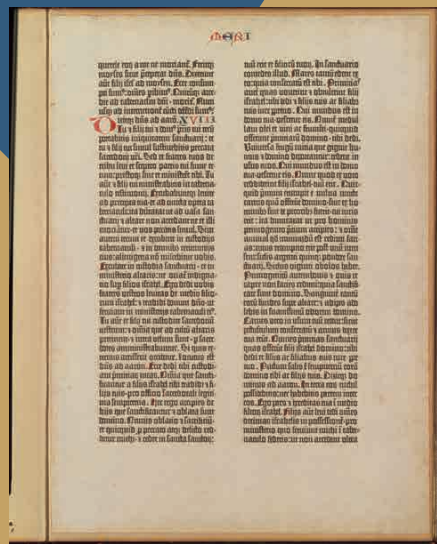


Portrait of Gutenberg

The Gutenberg 42-line Bible (around 1455)

The 42-line bible, or Gutenberg Bible, is the world's first bible printed using movable type, and the most well-known work of Gutenberg. The movable type for this book was made based on the letters seen in handwritten manuscripts that were common at the time, and the book was printed on a manual wooden printing press. An original leaf of a Gutenberg Bible is on display at the Printing Museum, Tokyo, which is run by Toppan.

Original leaf of a Gutenberg 42-line bible





Letterpress printing workshop

Printing House

The Printing House at the Printing Museum is intended to preserve and carry on the tradition of letterpress printing. Rare letterpress printing tools, machinery, and various typefaces are not only on display, but are actually used for printing. Visitors can pick up and compose movable types, then use them to print.

Although letterpress printing is no longer used, current digital methods have inherited many of its typeface and typesetting rules.

Partnership Agreement with the Gutenberg Museum

Looking to the future of letterpress printing, the Gutenberg Museum in Mainz, Germany conducts educational programs for youngsters and supports companies and workshops involved in letterpress printing. The Printing Museum, Tokyo signed a partnership agreement with the Gutenberg Museum in November 2022. The two museums plan to interact, share information, and hold exhibitions with the goal of further developing printing culture.



Gutenberg Museum visit

Message

Nearly 570 years ago, the advent of letterpress printing brought about the information revolution, drastically changing the way we communicate. Nowadays, rapid advancements and proliferation of digital media are doing the same. Looking back on the origin of printing technology developed over the years, which forms the basis of our work, may provide hints for the future.

(Printing House Instructor: Noriko Maehara)



Second from the left is Noriko Maehara.

The next installment will be about a different topic. Please stay tuned!

PRINTING MUSEUM, TOKYO

Toppan Koishikawa Head Office Building
1-3-3 Suido, Bunkyo-ku, Tokyo 112-8531

TEL : +81 3-5840-2300/2301

E-mail : info@printing-museum.org

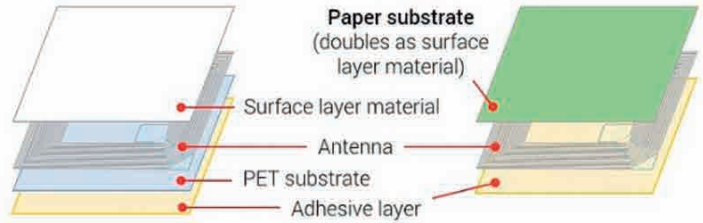
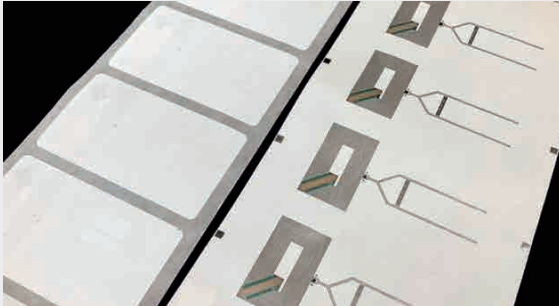
<https://www.printing-museum.org/en/>

1/23

Security Solutions

<https://www.toppan.com/en/news/2023/01/newsrelease230123.html>

Eco-friendly NFC Tag Label with Paper-based Antenna Substrate



Eco-friendly NFC tag label (left) and paper-based antenna substrate (right)

Illustration of the layer structures of an NFC tag label using PET film as the antenna substrate (left) and Toppan's new eco-friendly NFC tag label using a paper-based substrate (right)

Toppan has developed an eco-friendly near-field communication (NFC) tag label that uses paper material as the substrate for the antenna instead of conventional polyethylene terephthalate (PET) film.

Global sales of the new tag label were launched on January 23, with Europe expected to be a promising market due to the high level of environmental consciousness.



The antenna circuit is broken if someone attempts to remove the label.

Features of Eco-friendly NFC Tag Label

- 1 Plastic-free with communication performance equivalent to conventional products.
- 2 Label thickness reduced by 30% due to reduction of constituent materials.
- 3 Brittleness of paper material helps to prevent fraudulent reattachment.

2022
12/19

R&D

<https://www.toppan.com/en/news/2022/12/newsrelease221219.html>

"Black" Light Control Film for Automobiles

Toppan has developed a new "Normal Black" grade of LC MAGIC™, a liquid crystal light control film that changes from transparent to opaque with the flick

of a switch. LC MAGIC™ Normal Black is black with a visible light transmission (VLT) of 5% when power is off. Automobile windows

and sunroofs using LC MAGIC™ Normal Black can therefore create a bright and open space when power is on, while ensuring privacy when power is off.

Features of LC MAGIC™ Normal Black

- 1 A VLT of 5% when power is off, meaning vehicle interiors cannot be seen from outside and external light can be blocked even on a clear day.
- 2 Up to 43% of visible light is allowed to pass through when power is on.
- 3 LC MAGIC™ can be easily applied to glass because the thickness of the film is approximately 0.4 mm. It can also be cut into any shape.



Illustration of "Normal Black" grade of LC MAGIC™ used on a car sunroof

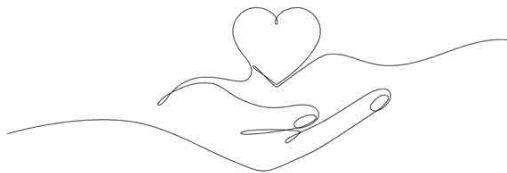


LC MAGIC™ Normal Black can be cut into any shape and has visible light transmission of 43% when power is on (left) and 5% when power is off (right).

Support for the Turkey-Syria Earthquake Recovery

We would like to extend our sympathies to everyone who has been affected by the earthquake near the Turkey-Syria border on February 6. Toppan has donated 5 million yen to relief funds through the Japanese Red Cross Society to support the disaster-stricken region.

We hope for the earliest possible recovery in the region.



GLOBAL

Release of Video Showcasing Toppan's 120-year History

TOPPAN CHRONICLE 120 has been released in the Video Gallery on Toppan's website. The video is not just an introduction to Toppan's business over the company's 120-year journey; it also presents the spirit of enterprise that has driven Toppan on its trajectory, evolving through the decades. Please take a look at the video and share it with clients as well.



English: <https://youtu.be/2GEbO9DqfD0>
 Chinese: <https://youtu.be/7qLs0vFN6mQ>
 Japanese: <https://youtu.be/yRRcU1u07CI>

SPAIN & INDIA

Name Changes for Two Group Companies

Two Toppan Group companies have new company names. Decotec Printing, S.A., based in Catalonia, Spain, made a fresh start as IP Decor Spain S.A.U. on October 17 last year. We are strengthening collaboration, with the company coming in under the Interprint umbrella, and aim to generate synergistic effects across the entire Group through the Toppan décor materials business. Max Speciality Films Private Limited, based in Punjab, India, changed its name to Toppan Speciality Films Private

Limited on December 14. As part of the Toppan Group, the company will look to serve the growing Indian market by strengthening operations around BOPP

film for food packaging as an easier-to-recycle packaging material for which demand is anticipated.



IP Decor Spain S.A.U. (left) and Toppan Speciality Films Private Limited

Toppan Group Joint Training in Shanghai Toward developing future leaders and creating new business



Between November last year and March this year, 30 employees selected from seven Toppan Group companies based in Shanghai took part in joint training, with the aims of developing future leaders and creating new business. As in other countries, the business environment in China’s domestic market is changing significantly. In particular, with the role of salesforces shifting from “selling power” to “value provision capabilities,” continued growth of organizations as a whole based on customer value, and development of human resources who can drive organizations forward were people-centered themes shared by each Group company.

Three joint training sessions were conducted, including one-on-one coaching sessions by specialist trainers focusing on mindset and interactions between sales department personnel of each Group company. Participants gained a deeper understanding of each company’s offerings, and the initiative will enable opportunities for business expansion through collaboration within the Group.

Participating companies:
 Leefung Advertising (Shanghai)
 Leefung Packaging (Shanghai)
 AIOI Systems (Shanghai)
 TSES
 Interprint (China) Decorative Materials
 Toppan Forms Information Systems Shanghai
 Toppan (Shanghai) Management (host)

TSF Selected in the Top 25 Best Workplaces in Manufacturing in India

Toppan Speciality Films Private Limited (TSF, formerly Max Speciality Films Private Limited) was recognized last September by being Great Place to Work-Certified™.¹ Of companies that obtained the certification, TSF was selected among the Top 25 Best Workplaces in Manufacturing in India.

1. Great Place to Work® (GPTW) is a certification granted in around 100 countries worldwide to businesses that exceed a certain level in evaluations relating to employee experience.

Read more:
https://www.linkedin.com/posts/toppan-specialityfilms_bestplacetowork-manufacturing-employeesuccess-activity-7028321141937086464-a29f?utm_source=share&utm_medium=member_desktop



Toppan iDGate Gets “AI Neo Star” Status

Taiwan’s AI Foundation, AppWorks, and Taiwan Web Service have announced the Taiwan AI Ecosystem Map for the second half of 2022. Toppan iDGate, an outstanding security solution provider, has been selected as a “Next Star.” Toppan iDGate’s AI face recognition technology has been applied to eKYC procedures and helps to reduce digital

onboarding time and prevent human error.



Read more:
https://www.linkedin.com/posts/toppan-idgate_ai-facerecognition-ekyc-activity-7030807668801880064-HwGv?utm_source=share&utm_medium=member_desktop

TOPPAN World SEEDS

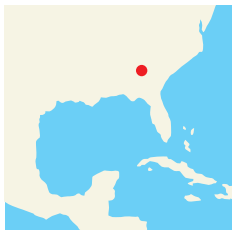
In this section, we introduce you to employees working at Toppan Group companies around the world.

File 5: Georgia, U.S.A.

Area: 153,000 km²
Population: 10.8 million (2021)



High Falls State Park



Griffin is a perfect location for business and what I have adopted as home. Toppan USA, Inc. is conveniently located between the beautiful Appalachian Mountains to the north of our state and the gorgeous coastline near Savannah, Georgia, an hour south of Atlanta.



Toppan USA

In April 2016, Toppan USA opened a new plant in Griffin, Georgia, which is the first GL FILM production plant outside of Japan. Toppan USA offers GL FILM, our exclusive high barrier film, and packaging that takes advantage of its oxygen and water vapor barrier performance.

Toppan USA, Inc.

Location: Griffin, Georgia, U.S.A.

Business: Production of GL FILM

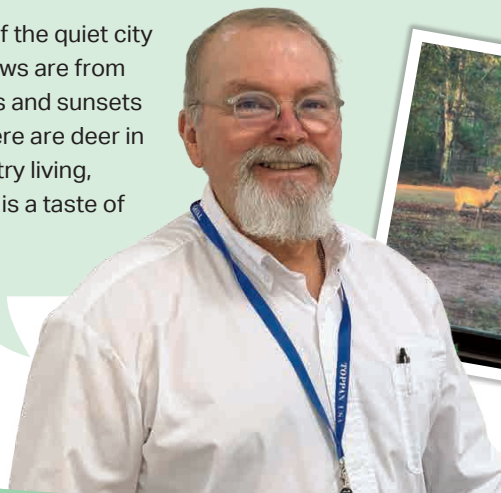


With my colleagues at the company's Christmas Event

Report

Leading a great team as we have at Toppan USA in Griffin, Georgia, has been an absolute pleasure. The products we supply to the industry are the best, as are our team members.

We enjoy a walk through one of the quiet city parks of Griffin. My favorite views are from my home. The wildlife, sunrises and sunsets are beautiful here and daily there are deer in my yard. Griffin is mostly country living, which is my preference. There is a taste of everything here.



Johnnie Osborne

Director of Operations

– Overseeing leadership of the site

My favorite view from my home

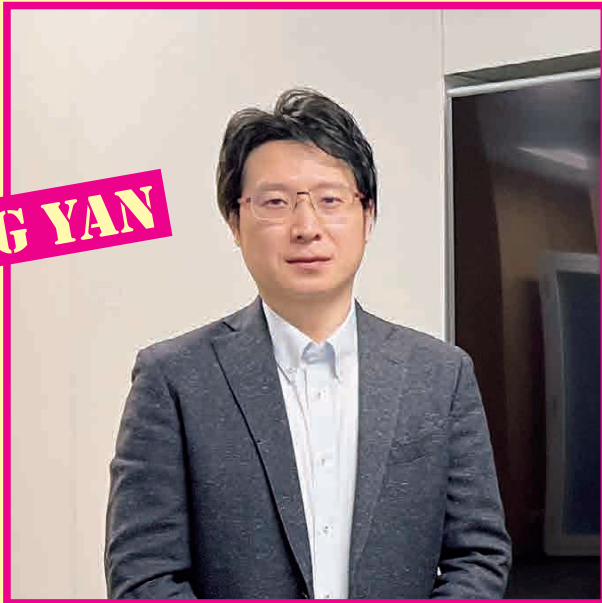


Sunset view from my front yard

MEET OUR PEOPLE

Turning a small step into a thousand miles and a small stream into a river

12
ZHANG YAN



At Toppan (Shanghai) Management's office

Position/job
Senior Business Development
Manager

Department & company name
Packaging Division
Toppan (Shanghai) Management Co., Ltd.

Location
Shanghai, China

with friends and colleagues, so we can share experiences and opinions. There are many towns with extensive canal systems and ancient towns surrounding Shanghai. In my spare time, I like to go there to relax, taste various foods, and savor different customs and cultures in the quaint environment.

What advice or message do you have for Toppan colleagues throughout the world?

Despite unprecedented changes worldwide, during our globalization and internationalization process, with challenges come opportunities. Every Toppan employee should therefore be brave and flexible to make breakthroughs by progressing step by step with their current capabilities and knowledge.

Zhang Yan works in packaging business development at Toppan (Shanghai) Management Co., Ltd. and is mainly responsible for advancing new business for packaging items and identifying opportunities in new fields by analyzing huge potential markets and consumer groups.

Tell us a bit about how you came to work for Toppan?

Toppan is a large-scale printing and packaging conglomerate involved in security and protection, semiconductors and displays. With a diversified portfolio and strengths in R&D, it builds employee-friendly factories and offices worldwide. As the regional headquarters, the Shanghai division advances new business and promotes new products, contributing to our business and product footprint in China. That's why I joined in March 2012.

What experience have you built up since joining Toppan?

Besides having professional knowledge of packaging products, I've become a forward-thinker with investigative and analytical capabilities, and I can explore

business opportunities and new products for coming years based on current industry conditions. Meanwhile, I can coordinate, work and seek common ground with customers, suppliers and partners with different mindsets from different cultures, being respectful and inclusive to advance our business.

How do you maintain a good work-life balance?

I stay focused at work and prioritize major tasks to improve efficiency. When I'm off-duty, I like having dinner



Family day activity

Sayram Lake, Xinjiang

Company trip to Mogan Mountain, Zhejiang

Toppan Shanghai regional sports festival (futsal)