



PATENTS & TECHNOLOGIES

# SHOWCASE 2025



TRANSFORMING CONNECTIONS, FOR THE BETTER

# INGENIOUS TECHNOLOGIES FROM THE FLOOR UPWARDS



i4F's vision is to **enhance where people live, work and play with ingenious technologies, from the floor upwards**. Its mission is to continually revolutionize flooring, and beyond, through technological excellence, meaningful innovation and human partnerships.

i4F supports the global flooring industry by licensing cutting-edge solutions in the areas of drop-lock technologies, digital printing, surface finishing - including technologies that imitate ceramic grouts, board and panel compositions, wall and ceiling installation systems, sustainable manufacturing processes and innovative outdoor technologies.

Pick and choose the patents or groups of patents that best suit your business needs via i4F's unique **Patent Cluster Concept (PCC)**. i4F's PCC lets licensees decide which technologies will reinforce their market position – or open up new revenue streams as trends change. i4F's PCC also provides full transparency on fees so that licensees can obtain the best return on investment while avoiding unnecessary payments for unused technologies.

i4F believes that even the smallest innovations have the potential to transform not just products, but the lives of the people that use them. It's why the group owns and represents thousands of patents and technologies. And it's why i4F continues to develop more independently and with its partners including Classen, Kronospan, HMTX, CFL Flooring, Tarkett, Kingdom Flooring, Li&Co, Amorim, QuickStyle Industries, Hymmen, Wellmade, Hesse - Lignal and Exterpark.

# Lock into faster flooring installation

## The world's easiest and best flooring installation systems

Flooring systems don't come any faster or easier to fit. In i4F's unique drop-lock system, two technologies come together to make one strong, high-performing floor.

### 3L TripleLock® - The "original" one piece drop-lock system for the short side

3L TripleLock® is the easiest and fastest system for flooring installation on the market, and suitable for existing high-speed production. Unlike other systems, no inserts are needed on the short side. That means less work, smaller costs, fewer materials and a lower carbon footprint.

### Click4U® - Angle system for the long side, combined with 3L TripleLock® on the short side

Click4U® works seamlessly with 3L TripleLock, enabling extremely high locking strength. Fast and easy to install, no special tools are needed – and it's suitable for existing high-speed production machinery.

# One easy system, one panel

## Eliminates need for mirroring A & B herringbone panels



i4F HerringB/ONE is a new intuitive installation technology, featuring one drop-lock mechanism on all herringbone panels. This eliminates the need for mirroring A&B herringbone panels, and meets a growing demand for DIY-friendly solutions that deliver simplified installation and replacements. i4F HerringB/ONE also reduces waste and streamlines manufacturing.

Manufacturers can streamline production, and reduce costs associated with multi-panel boxing, packaging, and instructions. Retailers are empowered to meet the surging demand for herringbone flooring by offering a super easy installation system.

End-users also benefit from a reduction in panel wastage by being able to accurately calculate the required number of boxes according to their space's surface area.

By eliminating the need for mirroring A and B panels, i4F's new HerringB/ONE drop-lock system benefits the entire supply chain by optimizing production processes, reducing packaging costs and waste, as well as improving overall efficiencies.

Simplifying the timeless elegance of herringbone in any direction and space.

INSTALLS UP TO 30% FASTER THAN BASIC CLICK SYSTEMS

ALL MATERIALS, ALL FORMATS

NO INSERTS

MEETS ALL EN PERFORMANCE STANDARDS

IMPROVED PRODUCTIVITY

STRONG PROVEN PERFORMANCE

SUITABLE FOR HIGH-SPEED MACHINES

Powered by **Click4U®** and **3L TripleLock®**

AVOIDS ADDITIONAL MULTI-PANEL PACKAGING COSTS

REDUCES WASTE

MEETS GROWING DEMAND FOR DIY-FRIENDLY FLOORING SOLUTIONS

INTUITIVE, SIMPLIFIED INSTALLATION AND REPLACEMENTS

A&B PANELS BECOME OBSOLETE

STREAMLINES MANUFACTURER PRODUCTION

# Real ceramic floors that just “Click”

i4F’s Ceramic Click patented system takes all the benefits of a floating, modular floor and combines it with the beauty and strength of real ceramics by delivering a click installation system for ceramic tiles enhanced with an i4F drop-lock system.



**The best of both worlds**

A technological installation breakthrough that combines the ease of a floating, modular floor with the strength and beauty of real ceramics. By being able to click ceramic tiles into place quickly and easily, consumers can save on installation costs by doing it themselves.

Professionals can pack in more floors per day, and need less materials and just a few tools.

i4F Ceramic Click offers a unique combination of a real ceramic tile attached to board - featuring an i4F drop-lock system - joined together by super thin grouts (1mm).

The world’s first Ceramic Click system means ceramic manufacturers can now compete with alternative floating floors. The system is also ideal for non-residential projects as there is virtually no waiting time.

i4F Ceramic Click delivers all the flexibility of floating floors with the advantages of real ceramics – water - as well as scratch and stress – resistant.

**UNIQUE COMBINATION:**  
CLICKABLE FLOATING FLOORS WITH BEAUTY AND RESISTANT OF REAL CERAMICS

**EASIER AND FASTER TO INSTALL, REMOVE, ENJOY**

**SAVE ON INSTALLATION TIME & MONEY**

**LESS MESS AND TOOLS**

**ANYONE CAN DO IT:**  
- DIYERS  
- PROFESSIONALS



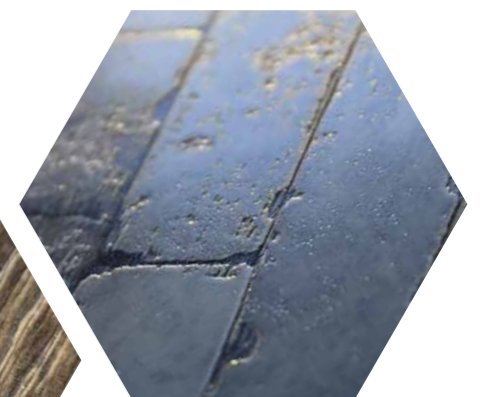
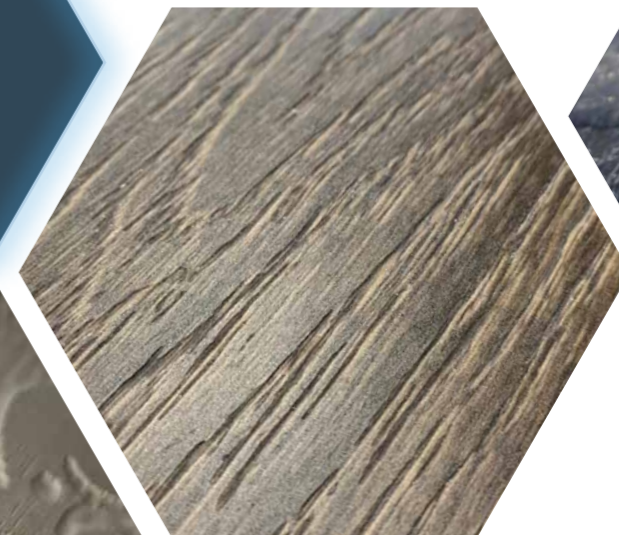
# Digital printing for flooring is here!

Cutting-edge digital printing technologies enabling flooring manufacturers to create unique designs, achieve superior optical quality, and avoid unnecessary inventory on pre-printed materials.

i4F licenses the world’s most advanced digital printing technologies delivering results so close to the real thing that it’s almost impossible to tell the difference. Cutting-edge technologies immediately available via an i4F license enable the creation of unique designs and avoid unnecessary inventory on

pre-printed materials. i4F’s strong digital printing portfolio now also includes exclusive access to all Hymmen digital printing technologies, including its award-winning Digital Lacquer Embossing Plus (DLE+) technology offering unbelievably real optics and haptics.

ALL MATERIALS  
SPECTACULAR RESULTS  
LESS WASTE



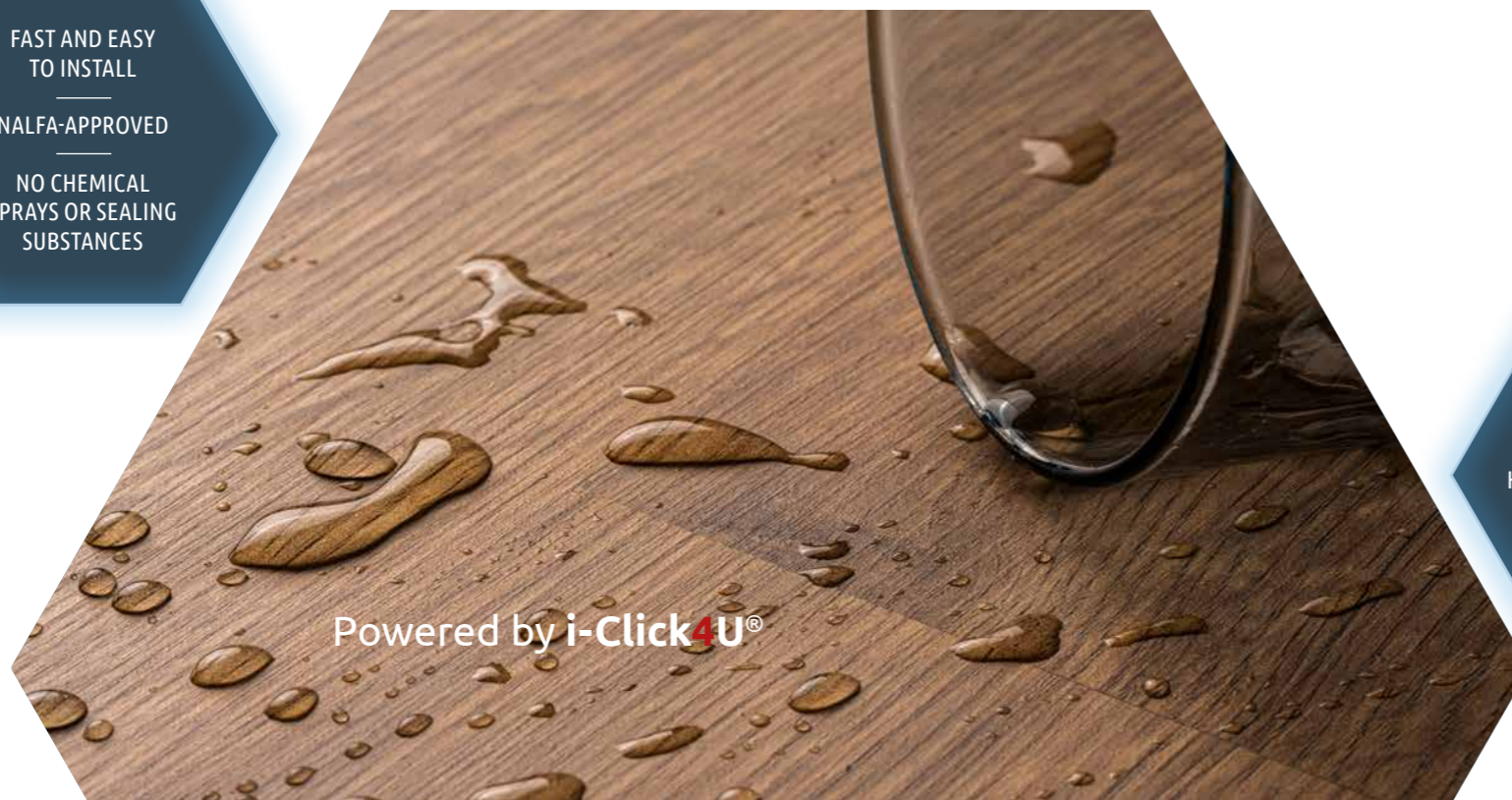
# Lock out water damage

## Water-resistant drop-lock technology with i-Click4U®

i-Click4U® (impermeable-Click4U) is the world's first water-resistant one piece drop-lock flooring installation system, complementing i4F's leading Click4U® technology. i-Click4U exceeds all NALFA (North American Laminate Flooring Association) requirements relating to water-resistant flooring including the requirement that panels must withstand water for a minimum

of 24 hours. The system has also been independently tested and approved by renowned German and French test institutes. Unlike other one piece floor locking systems, i4F's i-Click4U technology eliminates the need for any chemical sprays or additional sealing substances, like wax or paraffin, normally required to prevent water leaking into flooring panel joints.

FAST AND EASY TO INSTALL  
 NALFA-APPROVED  
 NO CHEMICAL SPRAYS OR SEALING SUBSTANCES



Powered by i-Click4U®

# Stop the swelling. Not the fun

## Water swell-resistant impregnation technology for laminate

**i4F AquaProtect** is a high-precision, resource-saving impregnation technology that protects laminate-core HDF boards from water swell by up to 75%, thus dramatically increasing their overall water-resistance. The technology applies a hydrophobic impregnation agent, avoiding unnecessary overspray, and seals the joint edges of both V-grooved and non-V-Grooved laminate panels. Laminate treated with AquaProtect meets all recognized international laminate water-resistance standards and tests, including NALFA and ISO 4760.

Fully compatible with existing laminate manufacturing lines, AquaProtect is a unique proposition as it enables producers to significantly upgrade their offerings for a relatively low investment. The technology delivers the same moisture-resistance performance as standard laminate-core HDF boards with a 20% higher resin content and it also works on any type of locking. The impregnation agent's unique formula is supplied by Riepe, a market-leading company that delivers spraying solutions for the woodworking industry, and is exclusively available for AquaProtect licensees.

SIGNIFICANTLY INCREASES WATER-RESISTANCE  
 HIGH-QUALITY RESULTS WITH STANDARD HDF BOARDS  
 WORKS ON ANY TYPE OF LOCKING

HIGH-PRECISION IMPREGNATION TECHNOLOGY FOR LAMINATE  
 MASSIVELY REDUCES THE RISK OF SWELLING



# Perfect Ceramic Look, Without the Hassle

**Mimics perfectly the beauty of ceramic-looking floors and walls**

i4F CeraGrout® mimics perfectly the aesthetics of modern 'rectified' ceramics by providing an integrated grout pre-attached to each tile or panel. Water-resistant, extremely durable and delivering superior resistance to wear and tear, stains, and chemical household agents, i4F CeraGrout enhanced tiles are super easy to install as well as replace, especially when compared to traditional ceramics. Beautiful for both floors and walls, floor collections to wall applications provide manufacturers and retailers with a huge opportunity.

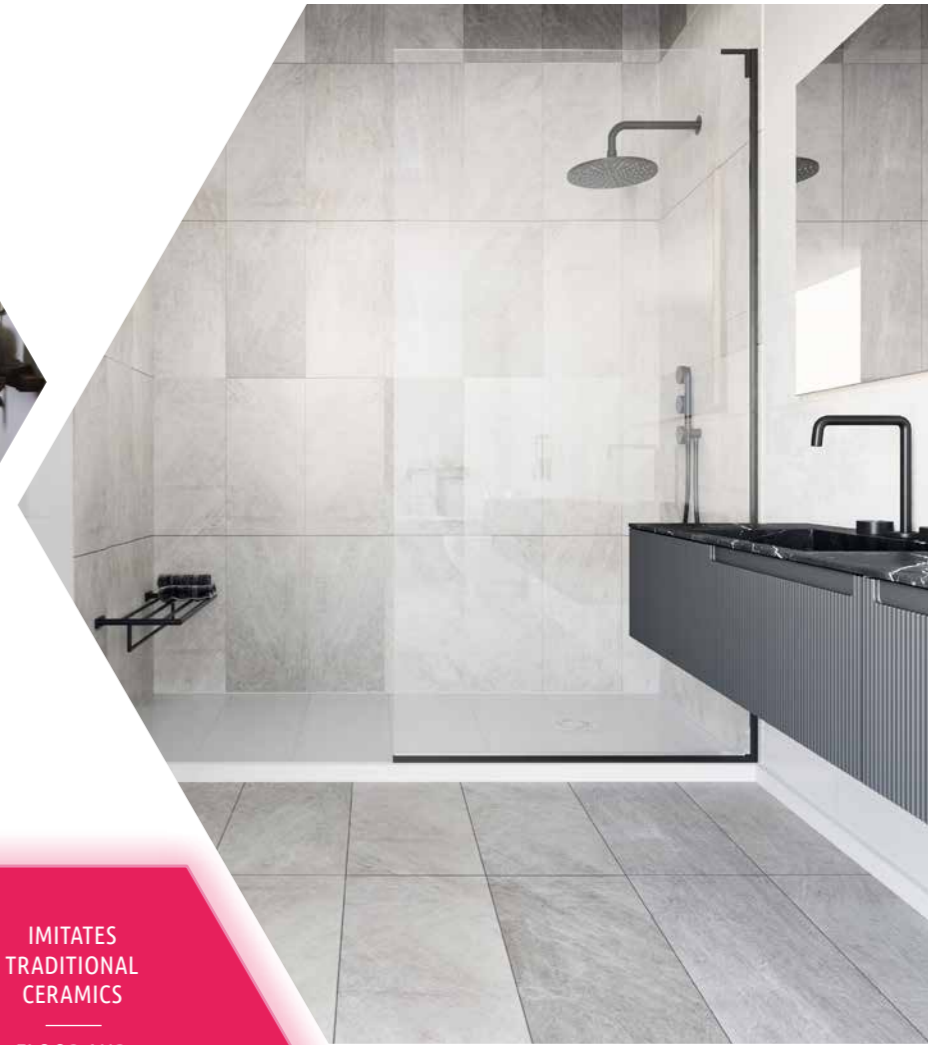
**Love the Look, Love the Difference**  
i4F CeraGrout-enhanced tiles may look identical to traditional ceramics, but their advantages become clear from the moment installation begins. With an integrated grout and advanced technology, many of the inconveniences associated with traditional tiles are

eliminated. No messy grout applications, no need for specialized tools, and no waiting time linked to drying. Once installed, these tiles continue to impress, remaining pristine for years while resisting water, stains, wear, and even harsh chemical agents.

**Effortless Installation, Every Time**  
The hassle and mess of traditional ceramic tile installation are things of the past. Thanks to pre-attached grouts, panels featuring i4F CeraGrout can be installed quickly and cleanly, requiring no specialized tools or grouting expertise. This saves time and reduces labor costs, offering an easy and efficient solution for professionals and DIYers alike.

EASIER TO INSTALL AND MAINTAIN  
FULLY WATER-RESISTANT  
MORE HYGIENIC  
LESS STAINS

IMITATES TRADITIONAL CERAMICS  
FLOOR AND WALL PANELS WITH GROUT FEATURES  
MORE REALISTIC, VISIBLE JOINTS



# Patented, sustainable rigid bio-cork composite

**100% plastic and PVC free**

Experience the perfect blend of sustainability and performance with i4F's unique sustainable rigid bio-cork composite technology. Exclusively available via i4F, the new sustainable rigid bio-cork composite patented technology offers a revolutionary solution that is 100% plastic and PVC free.

**NEW!**

At its core lies a unique bio-cork composite, meticulously crafted from cork particles and other bio and recycled materials. End products boast an exceptionally low-to-negative carbon footprint.

Despite its eco-friendly composition, it equals, and even outperforms traditional rigid-core products, delivering durability and sustainability in equal measure.

COMPRISES CORK PARTICLES + BIO/RECYCLED MATERIALS  
 PERFORMANCE CAN SURPASS TRADITIONAL RIGID-CORE  
 PRODUCTS WITH EXCEPTIONALLY LOW - TO NEGATIVE CO<sub>2</sub> FOOTPRINT

A magic formula delivering the perfect blend of sustainability and performance.

# Rigid Core TPU technology

**Flooring circularity that lives on for generations**

Introducing RenewaSRP®, a new Rigid Core TPU patent pending recyclable technology developed as an environmentally conscious solution to alleviate the challenge of single-use plastics. Two plastic bottles\* (PET) are upcycled into each square foot of SRP flooring, with a cross-linked polyurethane top layer, thermoplastic polyurethane (TPU) core layer, and a cross-linked foam back layer.

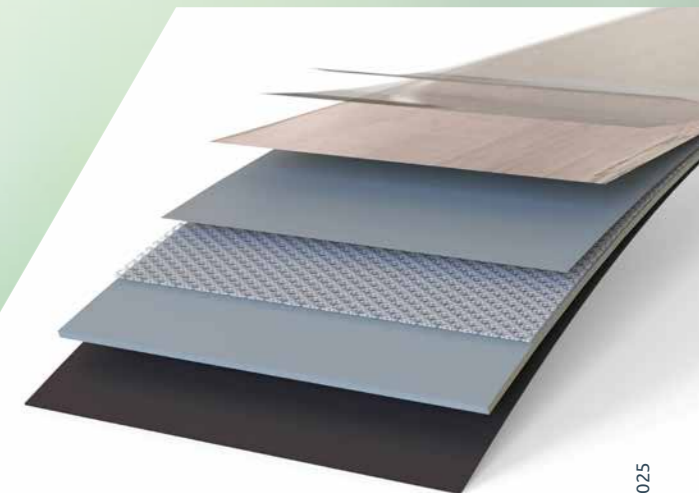
**NEW!**

**Layer upon Layer of Innovation**

Ultimately, the composition is transformed to an engineered thermoplastic polyurethane (TPU) which becomes the foundation of a single polymer construction. In a first for the flooring industry, and after a lifetime of use and reuse, RenewaSRP TPU rigid core-based flooring is designed to be recovered and remade into new flooring with the exact same characteristics: forged from the ground up for a circular economy.

RenewaSRP enabled flooring products are initially made from over 20 PET water bottles per square meter of flooring, helping to reduce the amount of plastic waste plastics in the environment. Planks and tiles are engineered to be recycled into new RenewaSRP flooring when they reach their end-of-life while maintaining product performance and quality.

The real power of **RenewaSRP** is its ability to live on.



# Sustainable savings and unbelievable light



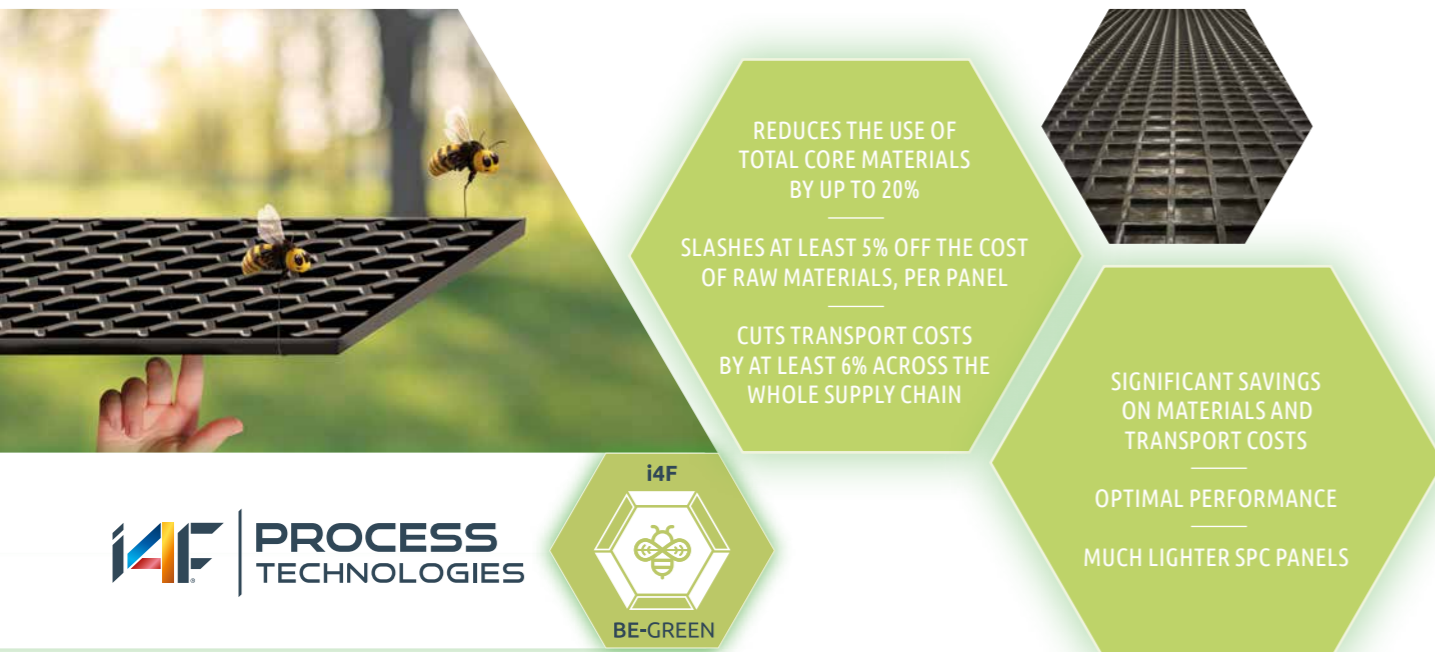
## The more sustainable way to make SPC panels

i4F Be-Lite® is a new, patented technology that enables a significant reduction in the use of core SPC raw materials during the manufacturing process of decorative panels without compromising on performance. Because SPC panels produced using i4F Be-Lite are significantly lighter, it is a lot less expensive to make and transport them.

i4F Be-Lite significantly improves the flooring industry's carbon footprint while remaining attractive to manufacturers by also delivering cost savings. That makes a meaningful difference and is truly a win: win for the industry and the planet. i4F Be-Lite

is a thermoforming technology that, depending on panels' core thicknesses and the i4F Be-Lite shape chosen, uses up to 20% less raw materials during the panel's core manufacturing process.

This differs from other existing material savings techniques that remove and recycle materials after the panel production process creating more costs and CO<sub>2</sub> emissions linked to the transport and recycling of scrap. The resulting, lighter SPC panels maintain optimum performance while easily reducing by at least 5% of a panel's total manufacturing raw material costs as well as decreasing transport costs by at least 6%.



- REDUCES THE USE OF TOTAL CORE MATERIALS BY UP TO 20%
- SLASHES AT LEAST 5% OFF THE COST OF RAW MATERIALS, PER PANEL
- CUTS TRANSPORT COSTS BY AT LEAST 6% ACROSS THE WHOLE SUPPLY CHAIN
- SIGNIFICANT SAVINGS ON MATERIALS AND TRANSPORT COSTS
- OPTIMAL PERFORMANCE
- MUCH LIGHTER SPC PANELS

i4F PROCESS TECHNOLOGIES BE-GREEN

# Climb the walls

## Drive your flooring business upwards

i4F wall and ceiling installation systems enable flooring manufacturers not only to enter new markets, but to leverage existing designs – by launching new collections that combine flooring, walls and ceilings.

### i4F Wall Panel installation system

i4F has developed a new installation system for locking wall panels. The system enables panels to be either screwed onto slats or glued against a wall. A key innovative aspect is that screws may be fastened into the locking without hindering the installation of the next panel. The system works on all materials and is moisture as well as heat-resistant.

### 3D Wall Installation systems

A patented installation system enabling three different levels of panels to connect for the creation of an amazing 3D effect on walls.

### Installation systems for Walls & Ceiling panels

A wall and ceiling panel click-system using an innovative profile providing variable joint options for easy installation and diverse design possibilities. A specific locking application for wall panels using glue is also available.



- NEW FLOOR TO WALL COLLECTIONS
- ENDLESS DESIGNS
- ALL MATERIALS
- MOISTURE AND HEAT RESISTANT



# Deep pore coating for all wood surfaces

POREGUARD is a patented technology delivering advanced deep-pore coating suitable for all wood surfaces, including parquet, engineered wood, furniture, etc.

POREGUARD's uniqueness lies in its ability to reach and coat the pores of deep pored and brushed structured wood while keeping pores open. This provides deep pore protection while preserving the natural look and feel of wood structures. Moisture and dirt resistant, POREGUARD enables easy cleaning and upkeep as well as avoids discoloration and shiny, lacquered surfaces.

Suitable for use with existing lacquering lines, the introduction of the technology into production incurs little, or no, investment.



# Easy decking installation for all

After years of delivering innovative, meaningful technologies that transform indoor environments for people to live, work and play, we have decided to take our experience and vision outdoors to empower people to transform their outdoor spaces easily, and quickly. Our transformative technologies are designed to take outdoor products to the next level.

i4F ClikDek® is i4F's new smart-fixing decking technology, delivering easy, click-into-place installation that's 3 times as fast to place as traditional decking installation systems.



Our patented smart fixing method has been acknowledged by the industry as the best system available for several good reasons. Installation with i4F ClikDek is 3 times faster and highly

flexible, enabling access anytime, anywhere in seconds. Its mechanical locking is strong yet flexible meaning you can always go back, and an invisible profile means low maintenance, as the loss of items in between the panels is eliminated.

# Matt is the new gloss



Matt finish floors continue to be in high demand. Achieved through a sophisticated curing process, i4F's surface finishing treatment delivers the ultimate matte look and enhanced benefits. It also has some serious benefits for flooring; reduced light reflection, less maintenance and better surface performance.







[i4F.COM](http://i4F.COM)