

The background of the entire image is a dark, vertical-grained wood. Overlaid on this are several rectangular samples of different decorative materials. On the left, there is a large vertical sample of light-colored wood grain. Below it is a smaller sample of grey material with dark, irregular spots. At the bottom left is a sample of light grey material with a fine, vertical wood grain. To the right of the central text is a large, solid grey rectangular area. Above this area is a smaller, solid grey rectangle. To the right of that is a small, white, textured rectangular sample. At the bottom right is a sample of brown, cork-like material.

**DECORATIVE
SOLUTIONS**
FOR
**BUILDING
MATERIALS**

by **itaca** BUILDING MATERIALS

Any surface
can be decorated
by digital printing



imagine new products...



...with both design and inorganic resistance:



Discover the digital way to transform building materials into fully finished products for indoor and outdoor.



Create custom products

Concrete, fiber cement, manufactured stone veneer, plywood,...



Concrete

Add a design to your precast concrete without adversely affecting its mechanical strength.



Fiber cement boards

Add colour and design to your board without changing its intended end use.



Manufactured stone

Convert gypsum and concrete panels into customized ready-to-use products.



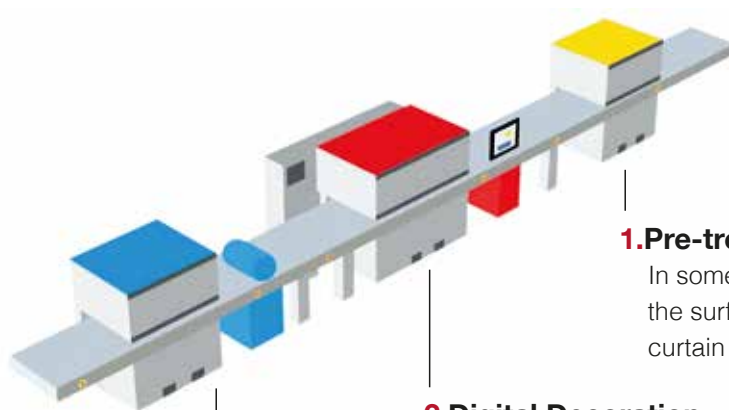
Plywood and MDF

Our decorative solutions add value, through colour and design, to many other construction materials.

How to decorate your building materials

The simplest way: digital inorganic printing

The decoration process is simple and cost effective, providing long-lasting decoration. Decoration by decorative solutions involves: primers, inorganic inks and coatings. The formulation and application of each layer has been optimized to assure integrity of the top layer and of the entire decoration.



1. Pre-treatment

In some cases, pre-treatment is first required to prepare the surface for decoration. This can be applied by spray, curtain or roller.

2. Digital Decoration

Inorganic pigmented inks are used for decoration by inkjet printing (wood, marble, concrete... almost anything you can dream of).

3. Finishing

In the finishing phase, our coatings provide the desired protection for the targeted aesthetic qualities and mechanical properties. The coatings can be applied by spray, curtain or roller depending on the targeted properties and substrate characteristics.

What you need

An expert partner: chemicals, design service and technical assistance

Itaca provides the necessary chemical products for digital decoration

Inorganic pigments and colours

Itaca's synthetic inorganic pigments have been manufactured with own proprietary technology since 1989. These inalterable inorganic colours are used as key raw materials for the inks and are indispensable for the final decoration.



Inorganic inks

Itaca's innovative inks provide a wide colour gamut. Their inorganic nature assures durability and UV resistance.



Primers

Primers play a key role in appropriate bonding of the subsequent layers, optimizing the amount of ink required and providing brightness.



Coatings

The finishing phase consists of applying the desired protection with our coatings for the targeted aesthetic qualities and technical performance.



Tests performed: Itaca always offers top quality. To obtain the best solutions, the following tests are conducted: Adhesion, Chemical stain resistance, Abrasion resistance, Skid resistance, Scratch resistance, Thermal shock resistance and Weathering resistance.

Design service



Design department features:

- Monitoring the latest global trends for customized markets
- Agile digital inkjet design development for bespoke designs and products
- Working with the latest colour management software
- Talented designers empathizing with customer values
- Esmalglass-Itaca group offers a huge library of designs for clients

We provide specific solutions that guarantee our customers' commercial success.

From the outset, Esmalglass-Itaca Group has believed in the competitive edge that design could contribute to the sector. This advantage is based on thorough knowledge of the needs of the different markets which our customers supply, not only concerning trends in colour, texture and form but also in the change of consumer and living environment habits. This allows Itaca to provide special, specific solutions that guarantee our customers' commercial success. Esmalglass-Itaca design stands out for its total quality, speed and agility.

Technical assistance

Customer-oriented solutions result from the close customer collaboration.

We are a business unit with a clear aim: our customers' satisfaction. We have the right product for every market segment and highly engaged and motivated personnel to satisfy our customers wishes. We anticipate the future, providing global solutions for our customers, adapting to their needs and always meeting the strict requirements of modern industry. Together with the products, Itaca provides comprehensive services for the start-up of the decoration project.

We accompany our clients from the very beginning, developing the product strategy, right up to the end.

We are our client's partner in developing and implementing decorative solutions based on digital printing.

Itaca can also provide training for local workers of the manufacturing and design departments.



Why this decorating system

This technology affords three important advantages

Tested technology

This industrial printing technology has been tested even in the harshest industrial environments.

Fact 1: Over 7,000 machines are running worldwide.

Fact 2: The system is currently being used in production by major players in Europe, Southeast Asia, South America and North America.

Inorganic colours

Inorganic colours have two main advantages: The first advantage is UV colourfastness; unlike organic colours, this enables them to be used for both interior and exterior coverings. The second advantage is that due to their cristalline nature, they are not affected by high pH present in cementitious materials.

Fact 1: Aging tests reveal that our inorganic pigments will remain stable in cement-based products.

Fact 2: We have tested that our inorganic pigments are compatible with but not reactive to cement-based products, resulting in long-lasting solutions.

Cost-effective

Economically competitive printing is involved.

Fact: both the machines and the consumables are cheaper than other decoration techniques. The investment in a decorating line with inorganic pigments is 50% cheaper than that in a line using organic pigments.



Manufactured stone veneer decorated by digital printing



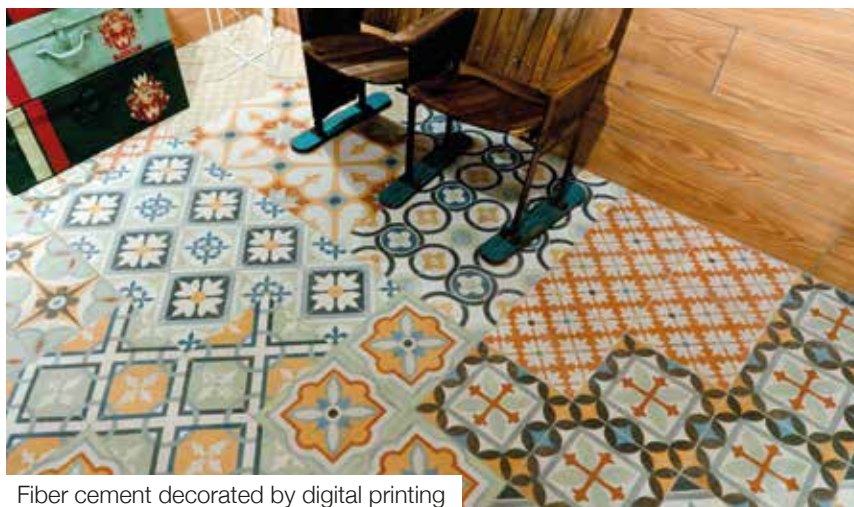
Fiber cement board decorated by digital printing



Concrete decorated by digital printing



Concrete decorated by digital printing



Fiber cement decorated by digital printing