



# Ceramica amica

DISCOVER ITALIAN CERAMIC TILES  
AND HOW TO USE THEM  
TO THEIR FULL POTENTIAL

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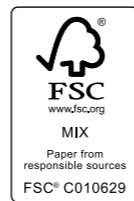
**CERSAIE**  
BOLOGNA ■ ITALY

We wish to thank Centro Ceramico di Bologna, Mapei and Fila Industria Chimica for information and suggestions that have made the publication of this handbook possible.

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## Why publish a guide to **ITALIAN CERAMIC TILES?**

Used on the floors of our homes, in our kitchens, living rooms and bathrooms or around swimming pools, Italian ceramic tiles are a familiar presence in our day-to-day lives. But how much do we really know about them? If we had to purchase tiles for a new home or a renovation project, would we have all the necessary information to choose the tiles that are most suited to our needs?

The handbook **Ceramica Amica** aims to provide all the information needed to make an informed choice and purchase of Italian ceramic tiles. It also offers helpful tips on installation, cleaning and maintenance as well as ideas for using a product that combines extraordinary versatility and safety.

We will discover just why Italian ceramic tiles are environmentally friendly and what characteristics they have that make them an extremely adaptable and functional surface covering for all domestic spaces and architectural projects.

For further information, visit the website [www.laceramicaitaliana.it](http://www.laceramicaitaliana.it) and the websites of **Ceramics of Italy** affiliated companies.

Franco Manfredini  
Chairman, Confindustria Ceramica

# Ceramic TILES.

## WHAT ARE THEY?

Italian ceramic tiles are flat sheets made from a mixture of clay, sand and other natural materials formed into the desired shape and size and then fired at a high temperature. They come in various sizes and with thicknesses of between 3 and 20 mm. Thanks to advanced production technologies, they are available in an **almost unlimited variety** of sizes, colours, surfaces and decorative effects.

## HOW ARE THEY PRODUCED?

Italian ceramic tiles are produced from carefully selected raw materials, which are milled and mixed together to make the different product types, such as porcelain, single firing, double firing, terracotta and clinker. Italian companies use the latest technologies to produce high-quality ceramic tiles with outstanding technical and environmental characteristics. Continuous investments in production process automation ensure the consistently high quality of individual products.

## WHERE CAN THEY BE USED?

Italian ceramic tiles can be used as a surface covering on floors, walls and architectural volumes and are ideal for both interiors and exteriors. Any surface in the home, however large or small, can be clad with ceramic tiles to create a tasteful, creative installation.



## WHAT FUNCTIONS DO THEY PERFORM?

Although highly diverse, Italian tiles essentially perform three different functions:

- **aesthetic** - they are part of the interior design project along with the other finishing materials;
- **technical** - they are able to withstand the stresses produced by the people who use the spaces without suffering damage or deterioration;
- **functional** - they are hygienic and capable of effectively withstanding foot traffic, frost, fire and the elements. New developments include antibacterial, photocatalytic and photovoltaic functions, although these are currently limited to a niche market.

# Many good reasons for choosing CERAMIC TILES.

Ceramic is a durable, compact and inert material, giving it **numerous advantages** over other floor and wall covering materials.

## TOUGHNESS

Thanks to its partially vitreous structure and high degree of internal cohesion, ceramic is hard and highly resistant to breakage and abrasion. These characteristics are governed by **international standards** (EN 14411 ISO 13006), allowing comparisons to be made on the basis of objective values. Refer to the packaging and data sheets for details or contact the retailer for further information.

## IMPERMEABILITY

Ceramic, especially vitrified ceramic, is a compact and non-porous material, making it impermeable and resistant to staining. This means that tiles are quick and easy to clean, as well as having good frost resistance.

## SAFETY

Unlike many other materials, ceramic tiles are noncombustible, they do not release fumes or toxic gases in the event of fire and they have a flame-retarding action, thus reducing fire damage.

## SHAPES AND SIZES

Today's Italian ceramic tiles come in modular sizes with lengths ranging from a few centimetres to more than a metre, so purchasers can choose from an enormous range.

## HEALTH AND WELL-BEING

Ceramic is an inert material with a composition that prevents the release of any substances that are harmful for health. And unlike other surfaces and objects, they do not trap dust, pollen or germs, allowing them to be cleaned effectively so as to minimise health risks.



# Italian ceramic tiles, ULTIMATELY SUSTAINABLE.

Due to ever greater environmental awareness, companies and the public are increasingly adopting sustainable behaviours and lifestyles. In terms of their composition, production process and lifecycle, Italian ceramic tiles are consistent with an **eco-sustainable lifestyle**. Their green credentials are backed by the prestige and reliability of the **Ceramics of Italy** label.

## RAW MATERIALS

Ceramic tiles and other ceramic objects are made from **natural raw materials** such as clay, quartz and feldspathic minerals. These raw materials are quarried in such a way as not to harm the ecosystem and landscape, which is remediated in accordance with strict legislation.

## PRODUCTION CYCLE

The raw materials are subsequently processed in factories using an **optimised production cycle**. Heat is recovered, electrical energy is self-generated, emissions and the use of water are reduced and virtually all waste is returned to the production cycle. These methods are endorsed by environmental certifications such as EMAS and ISO 14001.

## PRODUCTS

The resultant products are highly eco-friendly and are covered by **quality certifications** such as Ecolabel. Ceramic tiles also contribute to the environmental sustainability of buildings in accordance with LEED parameters.

## DISPOSAL

At the end of their useful lifetime, ceramic materials can be **reused in building work**. This reduces the quantities of solid waste released into the environment and avoids tapping natural sources of aggregates and other minerals for use in construction projects.



Photo: Andrea Roscini

For a responsible choice, look for the environmental certification and standards labelling in catalogues, on company websites and on packaging.



**EMAS (Environmental Management and Audit Scheme)**

EMAS certified companies have voluntarily adopted an Environmental Management System (EMS) aimed at continuously improving the eco-sustainability of the production process.



**UNI EN ISO 14001**

This international standard certifies companies that have voluntarily adopted an Environmental Management System (EMS) for the purpose of continuously improving the eco-sustainability of their production processes.



**ECOLABEL**

This European ecological quality mark is awarded for the environmental performance of products and services. The label certifies a low environmental impact over the entire life cycle (LCA).



**LEED (Leadership in Energy and Environmental Design)**

This is an international system for certifying the sustainability of buildings. Ceramic tiles are LEED compliant, meaning that they qualify for LEED credits by contributing to the overall sustainability of a building.

# Italian ceramic tiles, the factors behind A WORLD LEADERSHIP.

Amongst the many ceramic tile producing countries worldwide, the Italian tile industry enjoys an unchallenged world leadership position. A number of factors have contributed to this success.

## ITALY, THE HOME OF CERAMIC INNOVATION

Since the 1950s, Italy has pioneered all industrial-level product innovation in the ceramic tile sector. It developed single-fired tiles, then porcelain and most recently super thin and large format tiles, its unflinching research efforts leading to successive generations of **ever more advanced products**. This progress has gone hand in hand with advances in the field of ceramic tile technology, another sector that originated and developed in Italy.

## THE CULTURE OF BEAUTY AND A PASSION FOR CRAFTSMANSHIP

Italy has a deeply-rooted culture of beauty. It is home to a lion's share of the world's cultural heritage, its language is the language of music, and Italian fashion and food is renowned the world over. This cultural sensibility is also expressed as a flair for product development and an



innate ability to recognize and reproduce beauty, spawning new aesthetic trends in world ceramics. This **natural creativity** has driven the **expertise** that has long been the trademark of Italian ceramic production, from old artisanal workshops to modern factories. It is this passion for aesthetics and craftsmanship that has been the force behind the industry's success.

## WORKPLACE SAFETY AND PROTECTION OF THE ENVIRONMENT

Italy boasts one of the highest standards of workplace safety, environmental awareness and employee welfare in the world. With its modern workplaces and latest-generation technology, the Italian ceramic industry is one of the greenest in the world. It adopts a wide-ranging approach to **environmental sustainability**, from meticulous selection of raw materials through to product certification. Ceramic tiles bearing the "Ceramics of Italy" mark represent all of this and more.



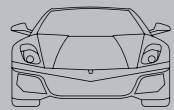


Ceramics of Italy

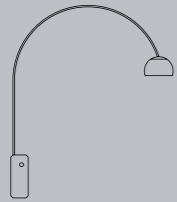
The Italian ceramic tile industry manufactures products with a high design content that lend unique, distinctive qualities to living spaces. They are produced using modern technologies that ensure attention to the environment and workplace safety and optimise the use of resources in accordance with the highest performance standards. The Italian ceramic industry promotes its products through the **Ceramics of Italy** mark and the website [www.laceramicaitaliana.it](http://www.laceramicaitaliana.it).

**CERSAIE**  
BOLOGNA ■ ITALY

Cersaie is the world's most important exhibition of ceramic tiles and bathroom furnishings. Held at the end of September each year in Bologna, it hosts the latest new products and innovations of than 900 exhibitors from 30 different countries. It is a unique opportunity to discover the latest trends, find fresh ideas for projects and take part in the cultural programme **"building, dwelling, thinking"**.



Sports cars of Italy



Design of Italy



Fashion of Italy



Ceramics of Italy

The mark of excellence  
recognized around the world.

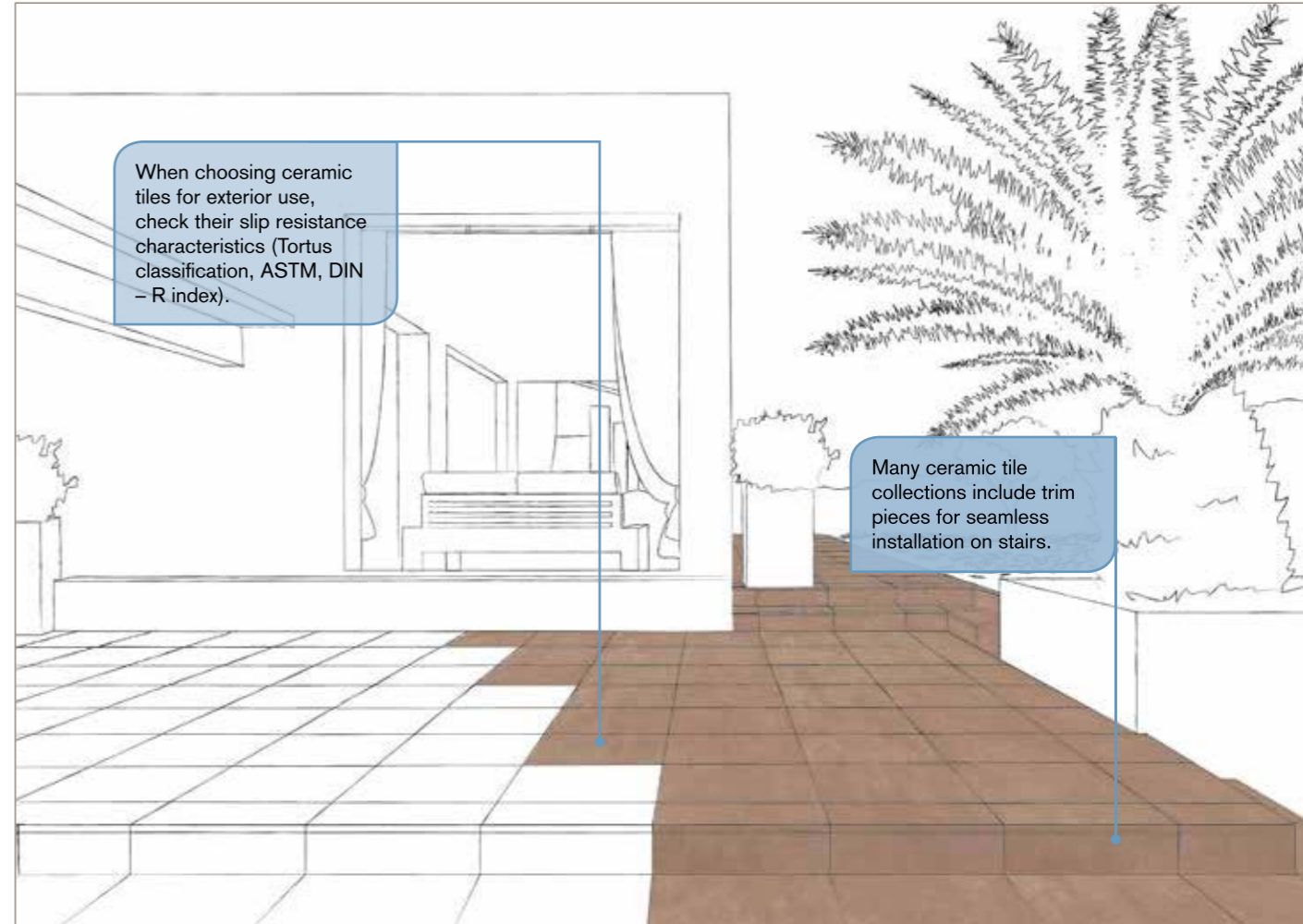


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**OUTDOORS**

safety style versatility comfort decoration  
sophistication design reliability

Due to their ability to withstand frost and thermal shock, ceramic tiles are ideal for use in exteriors, where they deliver wear resistance and durability.



When choosing ceramic tiles for exterior use, check their slip resistance characteristics (Tortus classification, ASTM, DIN - R index).

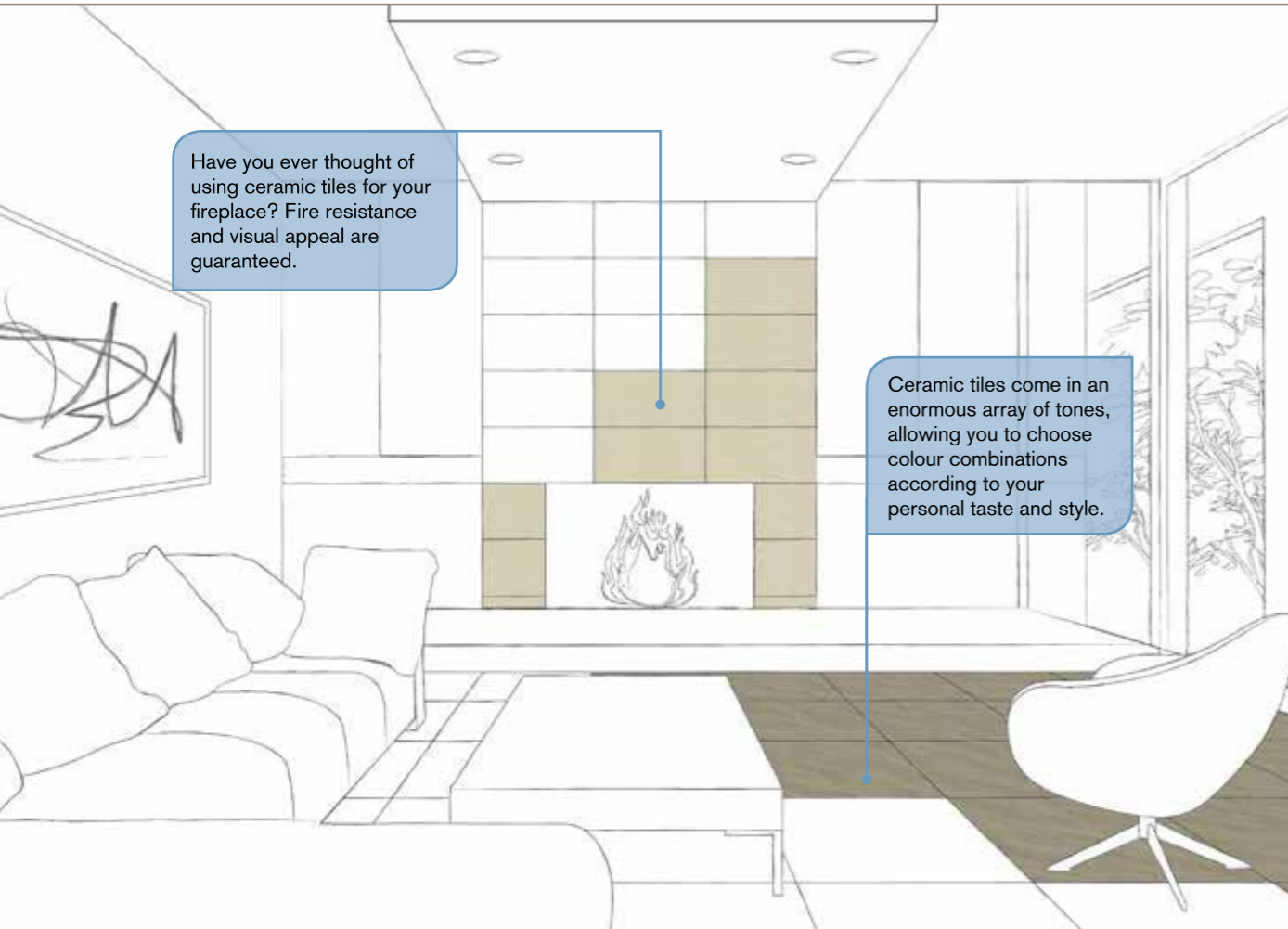
Many ceramic tile collections include trim pieces for seamless installation on stairs.

02

## IN THE LIVING ROOM

safety style versatility comfort decoration  
sophistication design reliability

Ceramic tiles not only have their own distinctive aesthetics, they are also capable of imitating other materials such as concrete, marble, stone and wood and come in an unlimited variety of finishes, colours and effects.

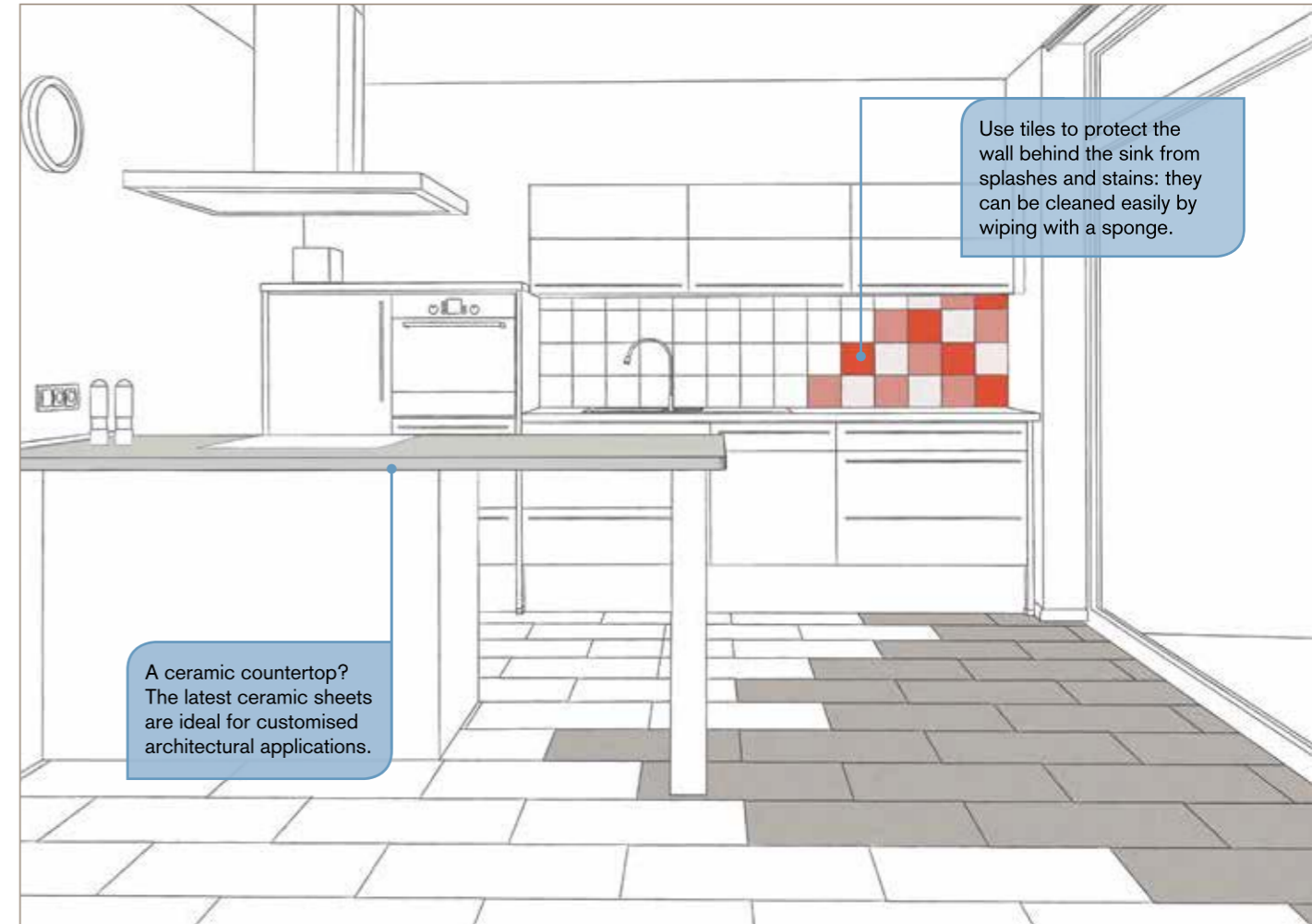


03

## IN THE KITCHEN

safety style versatility comfort decoration  
sophistication design reliability

Ceramic tiles are ideal in the kitchen, where they contribute with their versatility and beauty to the day-to-day life of this hub of domestic activity.

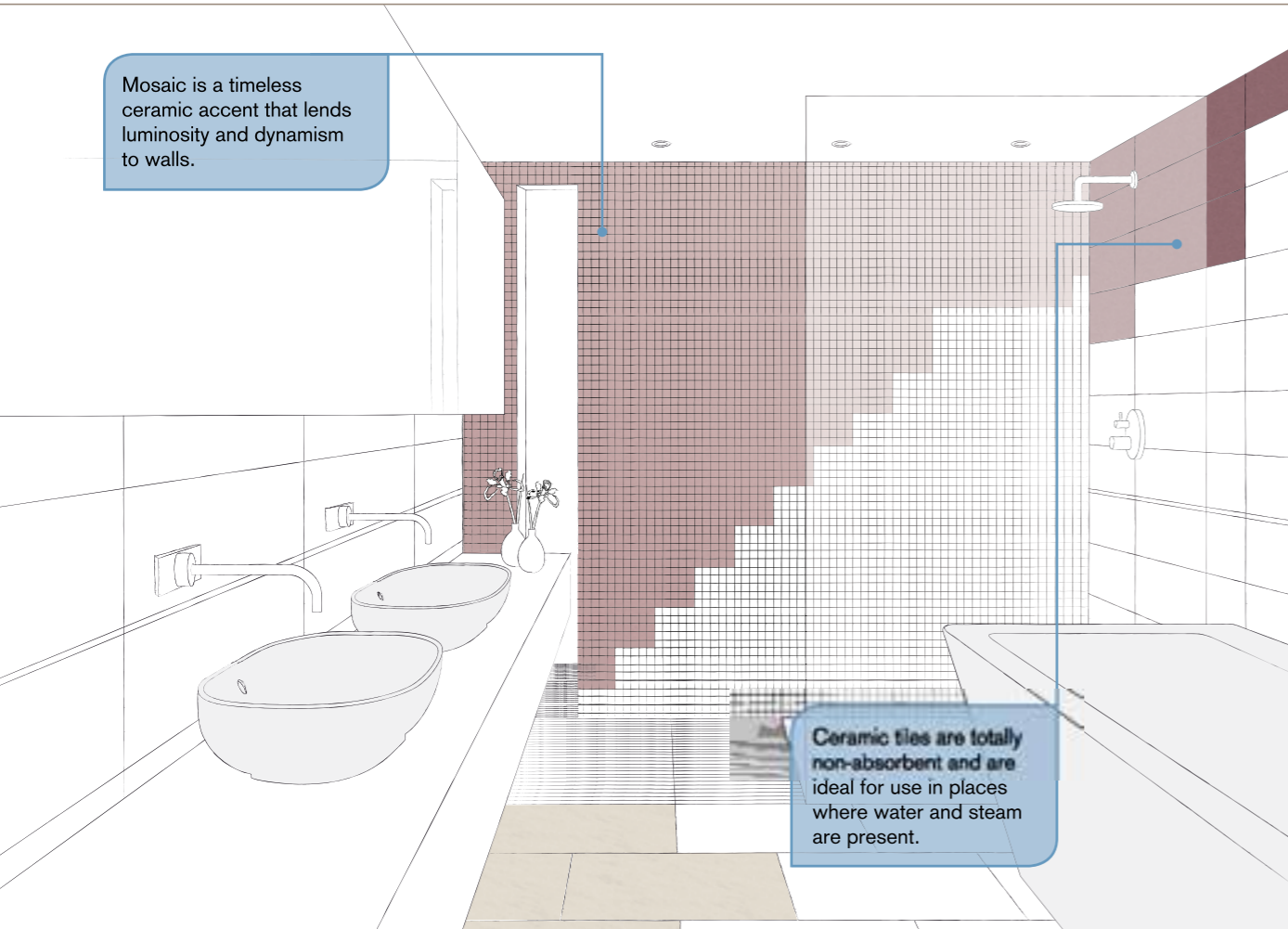


04

## IN THE BATHROOM

safety style versatility **comfort** decoration  
sophistication design reliability

Italian ceramic tiles feature the excellence of Italian design and make a significant contribution to all aspects of bathroom interiors, including floors, walls, shelves and the shower enclosure.

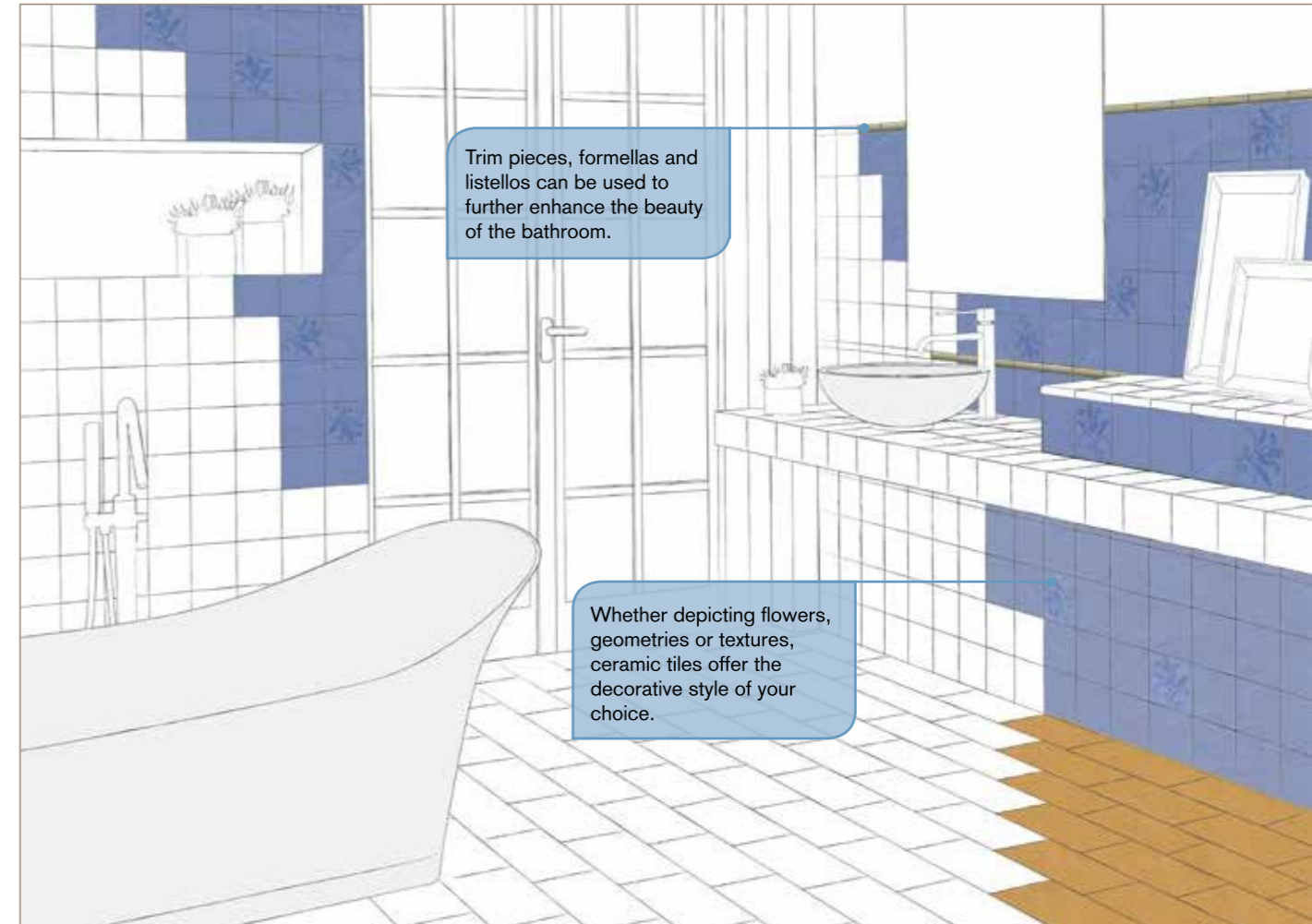


05

## IN THE BATHROOM

safety style versatility **comfort** decoration  
sophistication design reliability

The layer of glaze used on certain types of ceramic tiles can create sophisticated colours and patterns, ideal for a bathroom with a unique, customised design.

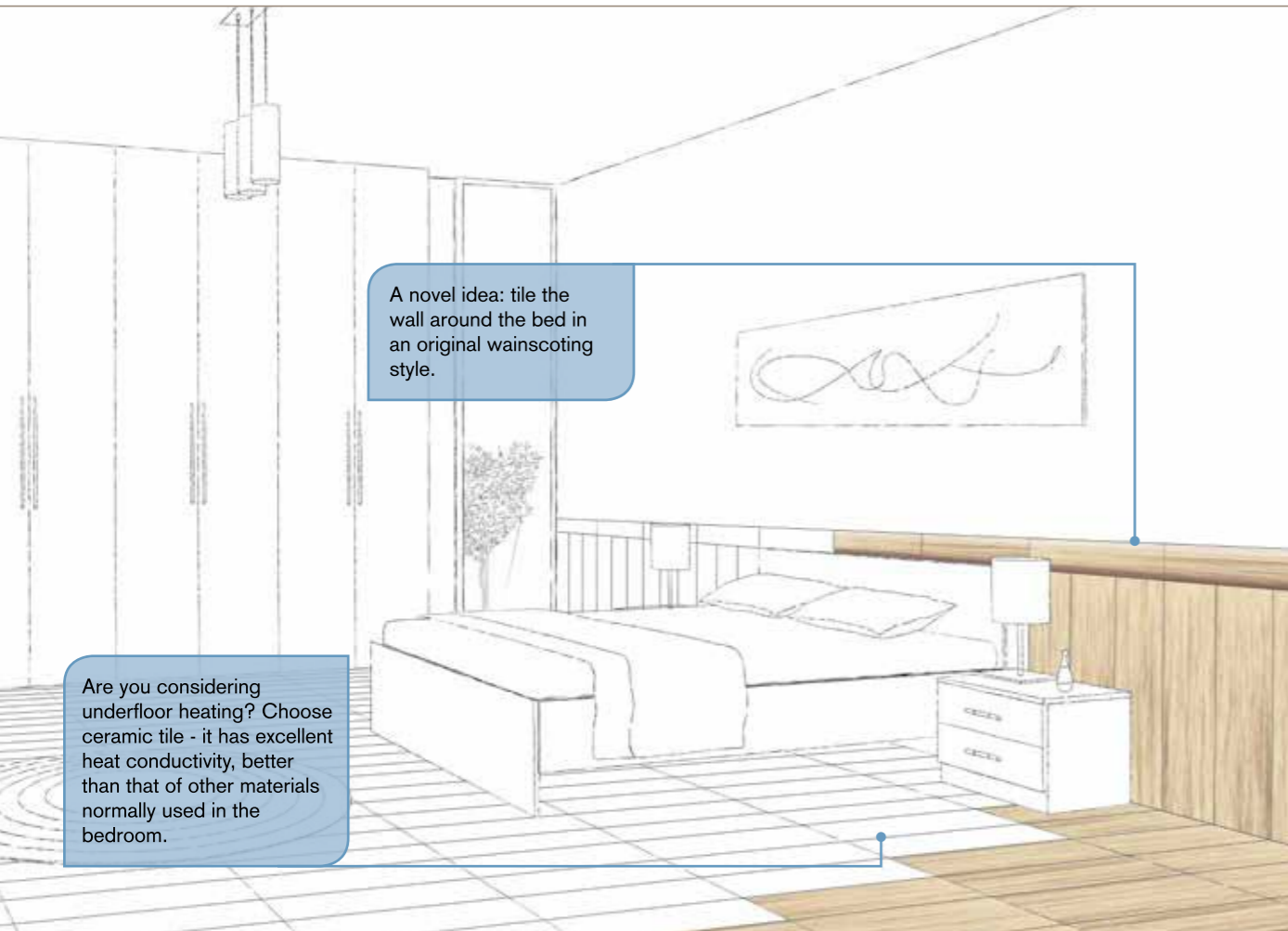


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## IN THE BEDROOM

safety style versatility comfort decoration  
sophistication design reliability

Due to their virtually unlimited aesthetic and colour range, ceramic tiles are ideal for creating a sophisticated and welcoming bedroom environment.

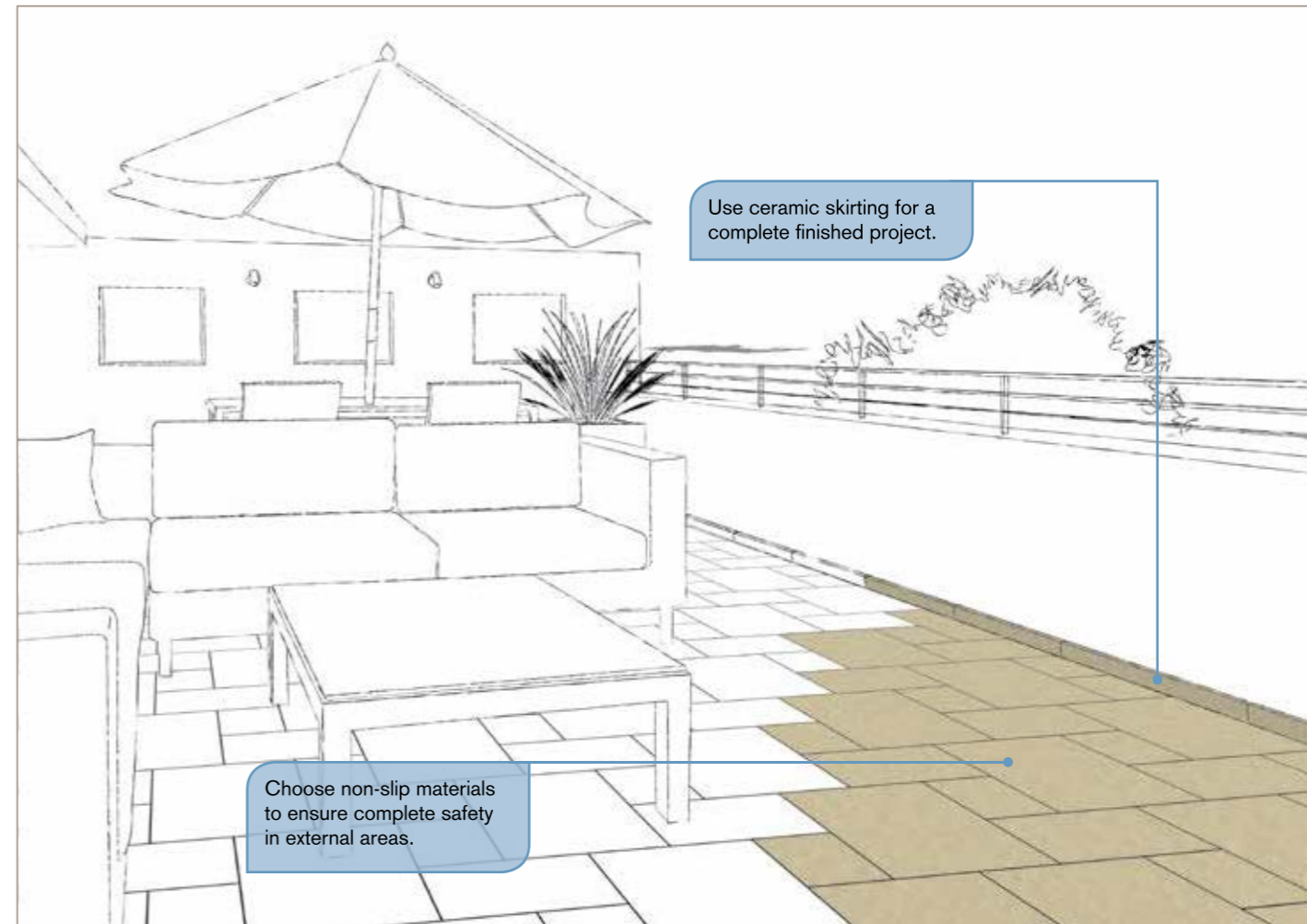


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## ON TERRACES

safety style versatility comfort decoration  
sophistication design reliability

Ceramic tiles bring the appeal of a natural material to external spaces, where they combine resistance to the elements with ease of maintenance.

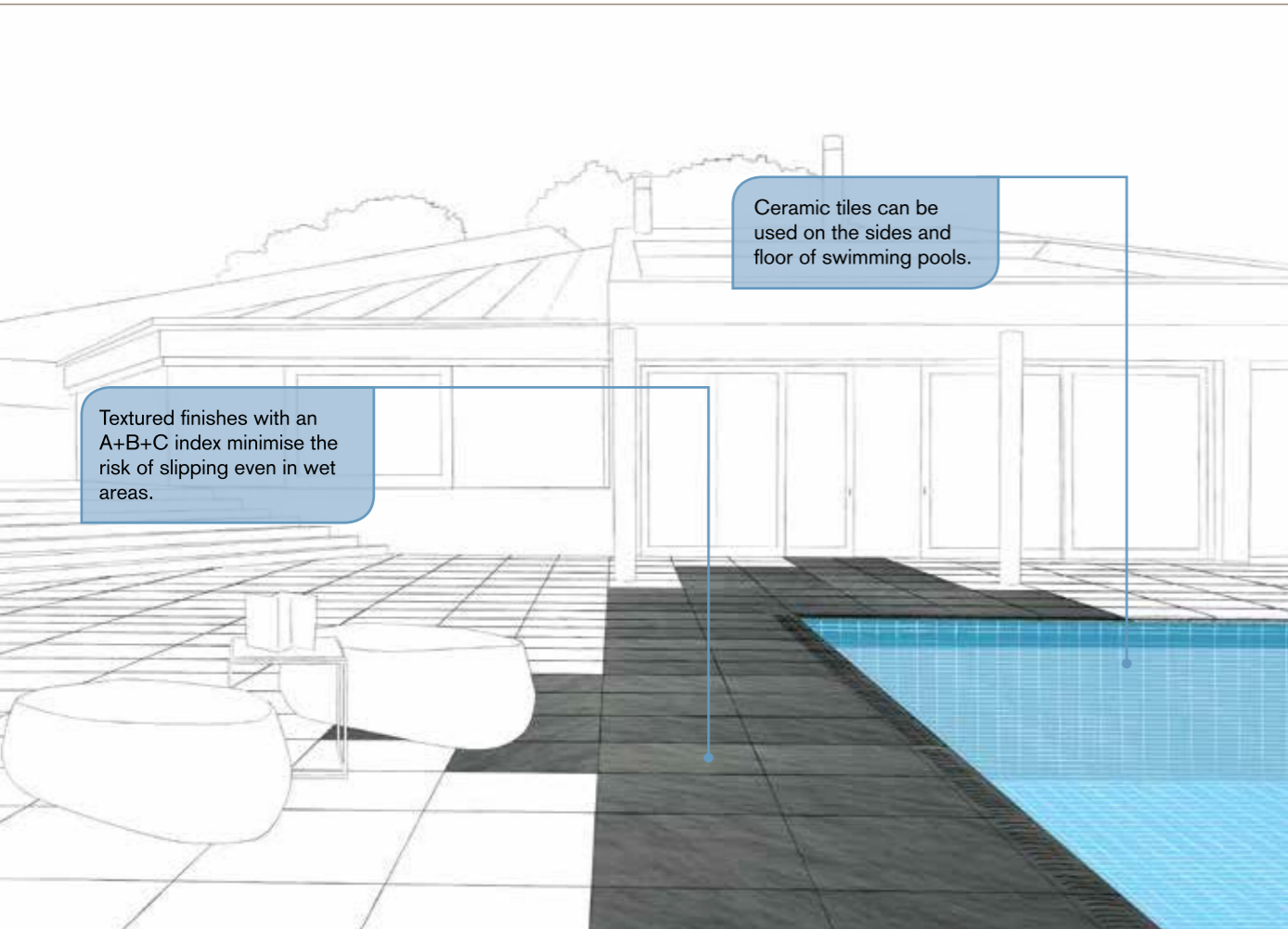




# IN SWIMMING POOLS

safety style versatility comfort decoration  
sophistication design reliability

Ceramic tiles are ideal as a waterproof pool lining and come in a wide range of special trim pieces for unrivalled poolside performance.



## Time to CHOOSE.

Given the almost unlimited range of product types, sizes, colours, surface and accents, choosing tile may seem a daunting task. A number of key aspects must be taken into consideration, most importantly **the place** where the tile will be used.



### INDOORS OR OUTDOORS?

Ceramic tiles for exterior use must have a number of **essential characteristics** such as frost resistance, thermal shock resistance and slip resistance. For this reason it is preferable to choose a tile with a rough, textured surface. For interiors there are fewer constraints and designers can choose tiles based on purely aesthetic considerations.



### CLASSIC OR CONTEMPORARY?

Essential, romantic, contemporary, minimalist, elegant or trendy - whatever the style of your home, you are sure to find an **Italian ceramic tile** that fits the bill. Just go to an authorized showroom to find the perfect tile.



### FLOOR OR WALL?

The wall tile production process is geared to achieving the highest **aesthetic and decorative** quality. While floor tiles have a similarly important aesthetic function, they must also be able to **withstand continuous stresses**.



### WHAT SIZE?

Small sizes are preferable for a traditionally styled space, while many designers say that the seamless effect achieved by large-format tiles can make a small room look larger! You can also choose **creative compositions** by combining different sizes. In any case, it is advisable to order 10% more tiles than the area of the surface to be covered.



## Everything you need to know ABOUT INSTALLATION.

Effective installation is crucial for ensuring the durability of ceramic tiling. Proper substrate preparation and the right choice of adhesives and grouts for the type of ceramic tile and specific project conditions (indoor/outdoor, floor/wall, light/heavy traffic, etc.) are critical for achieving a long-lasting installation. It is therefore very important to hire a **qualified tile** installer and to use **products that meet the latest national and international standards**.

### THE PLACE OF INSTALLATION

The intended location of the installation is a very important aspect. The type and intensity of loads that the tiled surfaces will be subjected to during use must be taken into account when choosing the tiles, which must **guarantee the necessary durability**. The risk of contact with aggressive substances must also be taken into account.

### THE SUBSTRATE

The substrate must guarantee the flatness of the tiled surface and must have the necessary **mechanical strength** to withstand expected loads during the use of the surface, including accidental loads. At the time of installation, the substrate must be clean, flat and adequately set, i.e. dimensionally stable and free from discontinuities and substances liable to inhibit bonding.



### WHICH TILES?

Tiles must be chosen with **suitable technical characteristics for the place of use** and the anticipated traffic over their entire lifetime. The same applies to thicknesses and sizes.

### NARROW JOINTS OR WIDE JOINTS?

Tiles are installed with open or wide joints (the joint width depends on the size of the tile and the specific characteristics of the project) for a number of reasons, most importantly to absorb the stresses that the tiling may be subjected to due to instability of the substrate and dimensional variations caused by temperature changes.

## The shape of ITALIAN CREATIVITY.

Italian ceramic tile collections come in a wide range of shapes and sizes. **The choice of sizes** is an essential step in the architectural project as it helps to determine the style of the home.

### SHAPE AND SIZE

Alongside the classic square and rectangular formats, Italian ceramic tiles come in a **wide variety of shapes**, from hexagons through to the most varied and original creations of architects and designers. They are also available in **an unlimited range of sizes**, from the smallest mosaics and the classic 10x10 cm and 20x20 cm pieces through to large ceramic sheets with dimensions of 300x100 cm and more.

### CREATIVE COMPOSITIONS

It may seem like a small detail, but the orientation with which the tiles are installed is an **important stylistic consideration**. On floors, tile can be installed perpendicular to the walls (with continuous or offset joints), diagonally or in a herringbone pattern. Wall tiles can be installed with the longer side either horizontal or vertical and they can be complemented by listellos or decorative strips according to personal taste.

### PLAY OF SIZES

Mixing together different sizes in the same project is a way of livening up surfaces and creating a more interesting and dynamic installation. Many collections offer modular sizes specially designed for **multi-format installations**.



### MOSAICS

Mosaic tiles play a key role in ceramic decoration. Available with various sizes of tesserae, they are enhanced by iridescent insets or inclusions of single-coloured or multicoloured materials and precious stones. They come either as mesh-mounted mosaics, which adapt easily to curved walls and columns, or as pre-scored faux mosaic tiles which are unrivalled for their simplicity of installation.



## Designing THE JOINTS.

The joints between tiles are a fundamental aspect of the tile project because they contribute to both its aesthetic appearance and its technical performance.

The choice of joint width and grout is therefore very important. The following are the aspects that must be taken into consideration.

### CONTRASTING OR COORDINATING COLOURS

Grouts come in a range of colours and should be chosen according to the desired level of visibility. The joints can be grouted in subtly coordinating or highly visible contrasting colours.

### RECTIFIED OR UNEVEN EDGES

The choice of tile edge depends on the desired type of joint. Rectified edges allow tiles to be placed side by side with a minimal sized joint to create the effect of a seamless, continuous surface, ideal for interiors with a contemporary style (**narrow or butt jointed**). Tiles with uneven edges require a wider joint (more than 2-3 mm), creating a more traditional stylistic effect (**open joint**).

### GROUTS

Grouts must **comply with standard UNI EN 13888** and must have the suitable characteristics for the project specifications and operating conditions, including exposure to potentially aggressive chemicals. This is essential to protect the joints from dirt, water penetration and bacterial growth.



## Ease of DAY-TO-DAY CLEANING.

To ensure that floor and wall tiles are aesthetically perfect and easy to maintain, the **first wash after installation** is crucial and must be performed in accordance with precise criteria.

### POST-INSTALLATION CLEANING

An acid wash after installation is essential to eliminate site residues such as adhesive, paint and dust. This wash must be carried out after the **cement grout has dried out**, which takes at least 24-48 hours for quick-setting and quick-drying products. In any case the grout manufacturer's instructions must be followed.

- Sweep the floor thoroughly and apply the descaling product using a mop.
- Leave for a few minutes.
- Rub the most encrusted areas vigorously using an abrasive sponge.
- Use cloths to collect the residues and rinse.

When using epoxy grouts, use a specially formulated detergent and follow the manufacturer's instructions for preparation, application and cleaning.

### ROUTINE MAINTENANCE

Italian ceramic tiles are **very quick and easy to clean**. Floors and walls can simply be washed using warm water and a normal neutral household cleaner.



# At home and away, ALWAYS WITH YOU.

Italian ceramic tiles are with you throughout the day, wherever you go. The same tiles that you choose for your home can be found **in all the architectural spaces** you use in your day-to-day life. When you are out shopping or staying at a hotel, when at a restaurant, library or airport, when you are taking your children to school, have a look around: there's a good chance that the material under your feet and covering the walls is **Italian ceramic tile**.



Photo Luciano Busani

## SAFETY AND DURABILITY

The safety and durability of Italian ceramic tiles makes them ideal for use in **high-traffic** areas such as shopping centres, airports, museums and other large public buildings.

## CLEANING AND HYGIENE

With their hygienic qualities, ease of cleaning, impermeability and stain resistance, Italian tiles are ideal for use in buildings such as schools and hospitals (where the **anti-bacterial properties** of certain types of Italian tiles are especially appreciated), as well as swimming pools, wellness centres and spas.

## FUNCTIONALITY AND TECHNOLOGY

Italian ceramic tiles are the ideal material for advanced technical solutions such as:

- **raised floors:** floors that rest on an adjustable height supporting structure, leaving a technical space below for the utilities. This solution is particularly suitable for offices and other workspaces;
- **ventilated façades:** systems for cladding buildings that combine aesthetic qualities with **heat insulation and protection from the elements**. The use of ceramic as an external cladding material improves the energy efficiency of buildings and reduces the heating and cooling costs, increases the building's value and provides a definitive solution to the problem of façade maintenance.



## STYLE AND AESTHETICS

Available in almost unlimited colour palette and with an enormous range of decorations, textures, patterns and material effects, Italian ceramic tiles are renowned for their **exceptional aesthetic and design qualities**. They are an excellent material for architects and designers, bringing distinctive personality, sophistication, style and quality to any project.



Photo Arketipo Design

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