Mineral Solutions for Tiles

First class mineral expertise for quality tiles
Imerys Ceramics is a world leading supplier of minerals for tile bodies, frits, glazes and engobes. We provide tile manufacturers with a variety of consistent blended minerals for super white, glazed and unglazed porcelain tiles and monoporosa.

Imerys Ceramics is your partner for excellence:

- Value-added products
- Tailored services
- Full expertise

To maximise the properties of our minerals and foster innovation, Imerys Ceramics has set up major ceramic technology centres in Europe and Asia.

We also have blending platforms and R&D facilities near ceramic clusters where our technicians provide technical assistance and develop made-to-measure formulations to sustain our customers development.

Imerys Ceramics, world leading supplier of industrial solutions
Imerys Ceramics manages the extraction and transformation process of high quality minerals for the tile industry. Our customers can rely on the quality and consistency of our products, the technical expertise of our development and sales teams for the formulation of tile bodies, frits, glazes and engobes.

VALUE-ADDED PRODUCTS

From our blending platforms located near the major ceramic clusters, we provide tile manufacturers with the best solutions adapted to their process. Our kaolins support manufactures by reducing pinholes, black specks and impurities. Our ball clays are renowned for their high level of whiteness after firing, plasticity and specific rheology. From our range of feldspars we are able to design specific mixes. Quartz and talc references complete our mineral portfolio.

Ball clays
With high quality deposits in many countries Imerys Ceramics offers a diversity of ball clays especially adapted to tile makers’ formulations, answering their various needs for:
- fusibility
- whiteness after firing
- mechanical strength

Kaolins
Imerys Ceramics supplies a full range of kaolins with different properties which allow:
- high green strength
- pyroplastic deformation reduction during firing
- high fired whiteness
- reduced glaze defects

Feldspars & Feldspathic sands
Imerys Ceramics supplies soda, potash, lithium-rich and mixed feldspars for frits, glazes, engobes and tile bodies. Our advantages:
- tailored mixes
- targeted solutions for specific applications, like RF4 for large format white porcelain tiles

Quartz
Imerys Ceramics supplies quartz for frits and glazes applications.

Talc
Extracted from the largest talc mine in the world, Imerys Ceramics talcs offer many advantages:
- optimized firing cycle
- improved mechanical properties for large format and thin tile bodies

TAILORED SERVICES

Development and Technical support
One of Imerys Ceramics strengths lies in our technicians’ ability to combine our own minerals with locally extracted products. In partnership with its customers, Imerys Ceramics develops tailor made formulations.

As part of our customer dedicated approach, we offer technical support to:
- adapt recipes to specific production conditions
- obtain a high value product at a reasonable cost
- improve quality output

Our R&D structures near the major tile making clusters are supported by Imerys Ceramics’ three major ceramic research laboratories. These advanced facilities are entirely dedicated to customer applications:
- Imerys Ceramic Centre in Limoges, France
- Imerys Ceramics Technologies UK in Devon
- Imerys Ceramics Technologies Asia in Bangkok, Thailand
Quality products for quality tiles
Imerys’ ability to control the properties and applications of its natural resources is a quality guarantee for its customers. Imerys Ceramics’ minerals are recognised for their unparalleled consistency and quality.

Imerys Ceramics has developed targeted mineral solutions to match producers’ specific requirements:
• plasticity enhancers • glazes & engobes
• whiteness enhancers • large and thin formats

Plasticity enhancers for tile bodies
Locally extracted minerals seldom have all the required properties for optimal tile production. Some clays known for their mechanical strength can be used as additives to boost local resources. With significant fusibility properties, Imerys Ceramics selected clays act as regulators of cohesion:
• enabling a wider use of local clays
• ensuring the full technical characteristics of the finished tile
• keeping the costs down by using a maximum of local products
• maintaining both quality and production output

Whiteness enhancers
Imerys Ceramics technical experts have successfully optimized the cost of producing super white bodies by reducing the zirconium content whilst maintaining a cohesive tile body:
• the first choice solution is to add FMT, a unique high strength ball clay that allows very high amounts of kaolinite into the body preserving standard tile characteristics;
• other possibilities have been developed with solutions for extended opacity and zirconium usage reduction.

Large format and thin porcelain tiles
To sustain its customers’ innovation and match market trends, Imerys Ceramics has selected minerals with specific properties aimed at large format tile manufacturing:
• reducing thermal expansion
• preventing pyroplastic deformation

Mineral solutions for glazes & engobes
Based on experience and partnerships with tile makers, Imerys Ceramics’ experts have designed specific product ranges for tile glaze and engobe applications. Imerys Ceramics offers solutions to cover the whole spectrum of customers’ main concerns:
• prevent the development of defects from the body during firing
• even the tile surface and enhance the glaze optical effect

Creating the perfect glaze surface for digital printing
Imerys Ceramics has developed a range of products particularly suited for the production of tile digital decoration. Providing the perfect glaze for printing, they minimize the reject/losses rate due to glaze defects ensuring the quality of the surface: whiteness, glossiness and smoothness.

All our minerals are designed to consider the various constraints induced by the tile making process: drying time, application equipment, firing temperature and cycle.