

Understanding Ceramic Tiles & Slabs when Specifying for Sustainability



# The certainty of sustainability is in ISO 17889-1 certification

The international standard ISO 17889-1 "Ceramic tiling systems - Sustainability for ceramic tiles and installation materials" provides a tool for objectively assessing the sustainability of ceramic tiles. Ceramic Surfaces Australia has demonstrated its commitment to the environment by offering porcelain tiles that combine production excellence with the protection of people and the environment. In fact, all our European collections satisfy the requirements prescribed by the standard.

### A commitment to protecting people and the environment

In recent decades, it has become imperative that manufactures adopt strategies aimed at reducing harmful emissions and the consumption of energy and natural resources. Constant investments in technological innovations and the adoption of best practices have thus decreased the environmental and social impact of our manufactures products and industrial processes.

To provide architects, designers, and end users with a tool that can assess the sustainability of a building material, Ceramica Italiana promoted the creation of an international standard that objectively defines a tile's sustainability criteria.



### ISO 17889-1: certified sustainability

ISO 17889-1 "Ceramic tiling systems - Sustainability for ceramic tiles and installation materials" is the first global standard to objectively measure the environmental, social and economic impact of ceramic tiles. In fact, it is a system that identifies 38 requirements, 15 of which are mandatory and 23 voluntary, establishing a specific value assigned based on comparison with benchmarks. The standard analyses the entire life cycle of tiles: selection and extraction of raw materials, industrial production processes, packaging, distribution and installation, use and final disposal.

A ceramic product can achieve certification and be considered sustainable only if it meets the mandatory requirements and scores a minimum of 117.5 out of 130 under the voluntary requirements.



#### How the ISO 17889-1 standard is applied

Among the factors considered, ISO 17889-1 particularly rewards the use of recycled and recyclable raw materials and the use of resources extracted close to the place of production. Moreover, an updated list with all items contained in the final product and a written statement showing the social responsibility policy adopted by the suppliers is required. At the production level, practices of energy efficiency and recovery, reduction of water consumption and adoption of renewable energy sources are encouraged. Finally, the safety and healthiness of the work environment are very important for certification. Companies that want to certify the sustainability of their products are required to complete a self-certification, following the same procedures as for other ISO certifications. At a later date, external certifying bodies verify the specific score achieved by the various performance levels, and confirm compliance with ISO 17889-1.



# Design the present, safeguard the future

Ceramic Surfaces Australia insist that its European partners and manufacturers have ISO 17889-1 certification, confirming the superior sustainability of its products.

This continued commitment to balancing industrial efficiency, environmental protection, and attention to people throughout the supply chain, ensures the materials we supply are truly sustainable.

One such manufacturer and key supplier to Ceramic Surfaces Australia, has developed a production process that limits its industrial impact by achieving electrical self-sufficiency thanks to an innovative methane fuelled co-generator, which covers 100% of electrical needs with reduced CO2 emissions.

Furthermore, they have adoption of an RTO (regenerative thermal oxidizer) purification system which has made it possible to contain emissions of fluorine and other pollutants and odorants well below the limits required by Italian regulations and BAT (Best Available Techniques) valid at the European level. For Ceramic Surfaces Australia, environmental sustainability is also a foundational element of our structural and emotional ethos and investment.



## More reasons to Specify Ceramics for Sustainability

Architects and designers should note the relatively short lifespan of some popular materials used for interior applications. Industry sources indicate that wood flooring has a rated life of 25 years, vinyl 15 years and carpet 10 years. In comparison, porcelain has a lifespan of over 60 years. Porcelain stands out as a prime example of a material that fits within the framework of sustainable longevity. By its nature, porcelain is an environmentally-friendly flooring and cladding material. In addition to its very long lifecycle, porcelain is made of natural ingredients – clay and common rocks like feldspar or quartz, and water.

Porcelain is a high-quality material that offers architectural benefits for a variety of applications. It offers very low water absorption, and is resistant to adverse weather conditions, chemicals and acids, and scratches. It is also fireproof, making it suitable for fire-rated applications. These qualities make porcelain one of the most resistant building materials in the world, which contributes to its long duration.

Unlike plastics, carpet floors and some wooden finishes, porcelain does not contain VOCs, and does not emit contaminants into the air. Porcelain tiles are also easy to clean, with some ranges offering antibacterial properties that provide continuous protection against the growth of bacteria that cause biofilms, bad odours and cross contamination.

