

# Energy Savings, Quality, Aesthetics with Ventilated Walls

*Technical characteristics and applications of a wall facing method held in ever-greater esteem by contemporary international architecture*

Contemporary architecture is showing increasing interest in ventilated façades made with technical ceramic: a material which, when applied in this fashion, provides aesthetic beauty and thermal insulation properties that other wall facings cannot beat.

In greater detail: we are talking of façade walls whose outer facing is made of ceramic tiles which are assembled dry by means of anchoring elements that suspend and affix them to an appropriate support structure. The hidden, back sides of the tiles are separated from the interior building wall by a gap which allows for air to circulate.

Ecolabel e Leed ottenuto con oltre il 40% da materiali di riciclo, unito alla tecnologia costruttiva che consente risparmi energetici.

Il Palazzo della Polizia di Helsingborg realizzato per IKEA dall'architetto Carl-Åke Bergström in collaborazione con la struttura ImolaTecnica di Cooperativa Ceramica d'Imola utilizza invece lastre in grès porcellanato del Progetto Time di ImolaCeramica, in formato 60x60 e di colore bianco.

Applied to exterior façades, this type of facing is becoming ever-more widely used to construct new buildings and restore existing ones due to its ability to guarantee strength, long-lasting durability, thermal insulation and energy savings. Ventilated façades create effective protection against weather-related events such as precipitation, wind and ice and, thanks to the circulation of air through the gap, facilitate the external transfer of excess water vapor produced within buildings.

In summer months, ventilated façades ensure thermal equilibrium in interiors, reducing the need for air conditioning, whereas in wintertime they facilitate thermal accu-

Tornando in Italia, la facciata ventilata realizzata da Florim Ceramiche Spa a Fiorano Modenese (MO), presenta lastre di ceramica che, oltre all'inserimento in parete ventilata, possono essere incollate a una facciata anche mediante incollaggio con tecniche e adesivi specifici, vantando una resistenza pressoché totale agli agenti atmosferici.

Progettata dagli architetti Enrico Mussini e Simone Testi, la nuova sede di Ceramiche Refin a Salvaterra di Casalgrande (RE) è stata completamente ristrutturata e dotata d'involucro esterno realizzato con una facciata ventilata ceramica. Le lastre ceramiche, della collezione Ecoleader INK formato 60x120 cm, sono prodotte con il 40% di materiale ceramico riciclato, rispondente ai dettami della certificazione Leed. ■

mulation, reducing heat loss to a minimum.

From the aesthetic point of view, ceramic tiles are long-lasting, providing stability in the color and fundamental technical characteristics – such as thermal and moisture-induced expansion – of the walls they face.

For this kind of application, low water-absorption ceramic tiles are generally used, especially porcelain stoneware, a high-performance, made-in-Italy product mainly designed for industrial flooring or exterior terraces. The low absorbency of porcelain stoneware, less than 0.5% of its mass, is due to the special microstructure it acquires during a firing process that takes place at temperatures greater than 1200 °C. Known for its essentially-closed porosity, porcelain stoneware has become synonymous with top-level strength and mechanical performance, not to mention its marked aesthetic qualities: thank to evolutions in technology, porcelain stoneware today offers a wide range of colors, surface finishes and sizes up to 80x120 cm.

Although a ventilated façade does cost more in terms of an initial investment, it guarantees strength, durability, thermal and acoustic insulation and energy savings over the long term.

As an example of architectural design that combines the aesthetics of ceramic ventilated walls with their technical potential, there is Polins, the Pole for Strategic Innovation in Portogruaro (VE), designed by Marco Acerbis in 2008.



Floor Gres, Complesso residenziale Via Forze Armate - Milano

The Marazzi tiles that make up the ventilated façade display the alluring design of the black SistemA crystallized porcelain stoneware, an Ecolabel and Leed-certified, patented product made with over 40% recycled material, combined with building technology which allows for significant energy savings.

The former police building in Helsingborg, Sweden, renovated for IKEA by Carl-Åke Bergström with Imola Tecnica, a branch of the Imola Ceramics Cooperative, employs 60x60 cm white porcelain stoneware slabs from Imola Ceramica's "Time" product line.

In Italy, the ventilated façades made by Florim Ceramiche Spa in Fiorano Modenese (MO), consist of ceramic slabs which, in addition to their use in ventilated walls, can also be attached to a façade by means of special techniques and adhesives, thus providing total resistance to weather damage.

Designed by Enrico Mussini and Simone Testi, the new headquarters of Ceramiche Refin in Salvaterra di Casalgrande (RE) have been completely renovated and equipped with an exterior facing made with a ceramic ventilated façade. The 60x120 cm ceramic slabs, from the Ecoleader INK collection, are produced with 40% recycled ceramic material, in conformance with Leed certification requirements. ■

Palazzina uffici  
Lea Ceramiche  
a Fiorano Modenese

