



**ASTALE**

Ventilated façades









# PRODUCT

## Introduction

Pamesa Group has always been focused on the achievement of wellbeing in architectural spaces and excellence has been obtained in that regard with Ascale: an all-new multi-purpose, large-sized and lightweight material. Pamesa Group is re-inventing itself and adapting architectural spaces to new lifestyles. The value of a brand along with work, effort, innovation and quality keep the industry alive. Ascale strengthens the technical characteristics of top-of-the-line wall tile with more possibilities due to its lightness and adaptability.

Using high pressure and temperature, we transform 100% all-natural mineral into slabs that combine natural beauty with resistance from the latest technologies.

Ascale's sintered stone surpasses the limitations of traditional materials, making it the ideal material for any type of cladding and surface. It offers a versatile, lightweight, and large-format design (162 x 324 cm in 12 and 20 mm thicknesses, 160 x 320 cm / 120 x 280 cm in 6 mm thicknesses, and 100 x 300 cm in 3 mm thicknesses). Ascale is the result of combining 100% natural mineral elements through pressure and temperature, achieving a functional and aesthetically exceptional surface that blends the beauty of natural stone with the strength and durability of sintered stone.

## Product

Why use Ascale? Because our sintered stone offers the ideal technical characteristics for any work surface to get the same or even better aesthetic value than with any other material.

Our collections perfectly adapt to the needs of all types of people. We have all types of marble, cement, stone, wood, metal and basic colours. Our mission is to create areas that evoke feelings of comfort wherever they may be.

Thanks to Ascale, you can enjoy the most iconic natural stone finishes with the features of next-generation slabs. Moreover, our 6 and 12 mm slabs feature a fibreglass mesh reinforcement on the back so the material can attain the highest possible resistance.







FINISHES

POLISHED • VELVET • FEEL • MATT



Matt

Velvet

Polished

Feel

FORMAT

162 x 324 cm (12,20 mm)   160 x 320 cm (6 mm)   120 x 280 cm (6 mm)   100 x 300 cm (3 mm)



3 mm

6 mm

12 mm

20 mm

WALL TILE:

Interior and outdoor.

FAÇADES.

FURNITURE.

3mm

WALL TILE:

Interior and outdoor.

FAÇADES.

FLOORING:

Interior and outdoor

FURNITURE.

6mm

COUNTERTOPS:

Kitchen and bath.

FLOORING:

Outdoor.

12mm

COUNTERTOPS:

Kitchen and bath.

FLOORING:

Outdoor.

20mm





GRUPO BIα (GL) / GROUP BIα (GL)

| PROPIEDADES FÍSICO -QUÍMICAS<br>PHYSICAL-CHEMICAL PROPERTIES                                            | NORMA DE ENSAYO<br>STANDARD TEST | VALOR REQUERIDO<br>REQUIRED VALUE     | VALOR MEDIO<br>AVERAGE VALUE                                                |
|---------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------|-----------------------------------------------------------------------------|
| Espesor<br>Thickness                                                                                    | ISO 10545-3                      | Cumple/Complies                       | Cumple/Complies                                                             |
| Absorción de agua<br>Water absorption                                                                   | ISO 10545-3                      | ≤ 0.5%                                | ≤ 0.1%                                                                      |
| Fuerza de rotura<br>Breaking strength                                                                   | ISO 10545-4                      | ≥ 700 N e<7.5 mm<br>≥ 1300 N e≥7.5 mm | ≥ 1000 N e=6 mm<br>≥ 3000 N e=8 mm<br>≥ 5000 N e=12 mm<br>≥ 11000 N e=20 mm |
| Resistencia a la flexión<br>Modulus of rupture                                                          | ISO 10545-4                      | R ≥ 35 N/mm2                          | ≥ 50 N/mm2                                                                  |
| Resistencia al impacto<br>Impact resistance                                                             | ISO 10545-5                      | Valor declarado<br>Declared value     | >0.8 sin defectos<br>visibles / no visible<br>defects                       |
| Resistencia a la abrasión superficial<br>Resistance to surface abrasion                                 | ISO 10545-7                      | Valor declarado<br>Declared value     | Valor declarado<br>Declared value                                           |
| Dilatación térmica lineal<br>Linear thermal expansion                                                   | ISO 10545-8                      | Valor declarado<br>Declared value     | 5.7.10-6°C                                                                  |
| Resistencia al choque térmico<br>Thermal shock resistance                                               | ISO 10545-9                      | Resistente<br>Resistant               | Resistente<br>Resistant                                                     |
| Expansión por humedad<br>Moisture expansion                                                             | ISO 10545-10                     | Valor declarado<br>Declared value     | <0.1 mm/m                                                                   |
| Resistencia al cuarteo<br>Crazing resistance                                                            | ISO 10545-11                     | Resistente<br>Resistant               | Resistente<br>Resistant                                                     |
| Resistente a la helada<br>Frost resistance                                                              | ISO 10545-12                     | Resistente<br>Resistant               | Resistente<br>Resistant                                                     |
| Resistencia química: Productos de<br>limpieza<br>Chemical resistance: Cleaning products                 | ISO-10545-13                     | B                                     | A                                                                           |
| Resistencia química: Aditivos piscinas<br>Chemical resistance: Swimming pool salts                      | ISO-10545-13                     | B                                     | A                                                                           |
| Resistencia química: Ácidos de baja<br>concentración<br>Chemical resistance: Low concentration<br>acids | ISO-10545-13                     | Valor declarado<br>Declared value     | LA matte finish<br>LB polished finish                                       |
| Chemical resistance: Low concentration<br>bases                                                         | ISO-10545-13                     | Valor declarado<br>Declared value     | LA matte finish<br>LB polished finish                                       |
| Resistencia a las manchas<br>Resistance to stains                                                       | ISO 10545-14                     | Min.3                                 | Min. 5 matte finish<br>Min. 4 polished finish                               |
| Emisión de plomo y cadmio<br>Determination of lead and cadmium                                          | ISO 10545-15                     | Valor declarado<br>Declared value     | Cadmium < 0.01 mg/l<br>Lead < 0.1 mg/l                                      |
| Resistencia al calor seco<br>Dry heat resistance                                                        | EN 13310                         | Declared value                        | Resistente<br>Resistant                                                     |
| Resistencia UV<br>UV Resistance                                                                         | DIN 51094                        | Declared value                        | Sin cambios No<br>change                                                    |

ADVANTAGES



DIMENSION AND APPERANCE



N/mm<sup>2</sup>

FLEXURAL STRENGTH



WATERPROOF



THERMAL RESISTANCE



mm<sup>3</sup>

RESISTANCE TO DEEP ABRASION



FROST RESISTANCE



RESISTANCE TO SUPERFICIAL ABRASION



CRAZING RESISTANCE



CHEMICAL RESISTANCE



MOHS

SCRATCH RESISTANCE



STAIN RESISTANCE



FIREPROOF











## Sustainable development



Ascale has an environmental management system to identify and minimize the impact of its operations on air emissions, wastewater, waste and noise pollution. Integrated Management System (SIG), designed by Ecoembes and aimed at the selective collection and recovery of packaging waste for treatment, recycling and assessment.

The company has Environmental Product Declarations (EPDs) for all the product families it markets. A declaration granted in 2014 and extended in 2015 that highlights environmentally friendly products.







# Green Facts

Regulation (EC) 66/2010: certification granted for products that respect environmental criteria and characteristics established on a European level concerning: the extraction of raw materials, supplier selection, production processes, packaging, distribution and the use and management of waste.

To properly monitor the degree of sustainability for a project, the USGBC has developed a certification process for the development of sustainable buildings which assesses and certifies the sustainability of a building as a whole.

ASCALE materials help earn “LEED” points in various areas. Issued by the American entity UL Environment, this certification system aims to reduce environmental pollution caused by construction systems and materials used indoors. UL Environment therefore seeks to protect people’s health by enhancing air quality and reducing exposure to chemicals and other contaminants. ASCALE products have even earned Greenguard Gold Certification which, with even stricter requirements, ensures the use of a certain product is acceptable in schools and healthcare centres as well.

The EPD (Environmental Product Declaration) is a document describing the environmental impacts from production. ASCALE products are covered by the ceramic sector study assessing the international excellence of the environmental characteristics.

ASCALE products are certified as NSF (National Sanitation Foundation – Food Equipment Materials) and are, therefore, ideal for use in direct contact with food.

This Environmental Management System (EMS) standard allows companies to prove they are responsible and committed to protecting the environment. This certification held by TAU Cerámica is achieved by managing the environmental risks that may arise in business.



K O S H E R







## → Ventilated façades

A ventilated façade is an exterior enclosure construction system comprised by an inner leaf, an insulating layer and an outer leaf. This system creates a vacuum space or air chamber which forces air to circulate through convection, thus causing a ventilation effect and providing the building incredible thermal features.

When properly built, this system also mitigates the effects of thermal bridges and enhances acoustic insulation meaning ASCALE slabs may be used to clad the outside of buildings due to their extraordinary properties, thus creating a second skin for the building combining aesthetic and functional benefits like no other material.

### *Protection against water*

It provides a barrier against rain and ice with the resulting reduction in inner façade degradation.

### *Imperturbable design*

UV resistance and non-absorption mean ASCALE ventilated façades maintain their look over time without absorbing any impurities and with low maintenance.

### *Perfect for renovation*

Being able to install a second skin on a façade without destroying the existing enclosure makes this system ideal for renovation projects.

### *Energy saving*

It guarantees good thermal insulation with less heat dispersion in cold periods and less heat absorption during warm months.

### *Lightness*

Along with a substructure (normally aluminium), ASCALE slabs provide a light and resistant façade cladding solution.

### *Healthier*

It ventilates, disperses inner moisture and offers better acoustic insulation which leads to better health and comfort.







## → Chemically-fixed hidden system

A simple ventilated façade system which consists of an aluminium “T” or “L” section beam substructure anchored to the building with support squares over which the ASCALE slabs are placed using structure adhesive beads. The distribution of the vertical beams is based on the size of the slabs designed in the project and the loads to be supported by the system.

This adhesive has been tested and resists extreme changes in temperature. Moreover, the fixing system is supplemented by double-sided adhesive tape which keeps the panels in place while the adhesive acquires its final resistance and ensures the thickness of the adhesive between the profile and back of the slab is correct.

This system achieves hidden, reliable fixing without any limitations on the slab format and with a clean finish.



## → Visible mechanical fixing

A ventilated façade system where ASCALE slabs are mechanically secured to the substructure with clips or staples. These staples are secured to the vertical aluminium beams which are anchored to the building structure using support squares. In addition to the staples and depending on the size of the slabs and exposure requirements, polyurethane reinforcement sealant may be used. It has no structural purpose but prevents vibrations and buckling.

The exposed staple fixing system is designed for 6 mm thick ASCALE slabs although there is a variant for 12 mm ASCALE slabs and the same substructure and fixing elements where the staples are hidden in grooves created for this purpose in the edge of the slabs.

This system is ideal for horizontal façades and false ceilings where the panels are horizontally suspended.







## → Hidden mechanical fixing

This system offers unbeatable performance and is designed to achieve hidden mechanical fixing with 6 mm ASCALE slabs.

The substructure is comprised of a grid of vertical and horizontal aluminium profiles, the latter in “J” sections. On the other hand, 45° dovetail grooves are made in the back of the ASCALE slabs. Additional aluminium profiles known as “hook and close” are installed in these grooves and they are embedded in the back so they “bite” the connecting piece to ensure fixing. The grooved panel and hook/close profile (hook-shaped) ensemble is then hung on the horizontal profiles of the substructure already installed on the wall so the panel is supported without any possibility of falling.

Besides the advantage of being both mechanical and hidden, this system can be used to hide cables which is useful when a panel must be removed and replaced to do system maintenance work, for example.





## → Keil invisible fixing

Compatible with 12 mm thick ASCALE slabs, they are mechanized with drill holes to insert plugs that secure the aluminium hanging staples.

When the plugs are tightened, the ASCALE panels become mechanically secured to offer high resistance and cutting force. Along with the pre-secured hanging staples, the panels are placed over the aluminium substructure previously installed on the support. It is an extremely high-performance system which has been tested in Europe and around the world as ideal for fixing ASCALE panels on all types of façades.









