



A R Q M A T

**REVESTIMIENTO
PIEDRA NATURAL**

HIGH PERFORMANCE NATURAL STONE PANELS

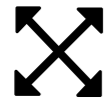
Nature uses the hexagonal shapes as construction patterns. Above all we can find in inorganic forms such as: snowflakes, crystals of minerals (aragonite), atomic structure of elements (carbon), solidified columns of basalt. Making an efficient internal and external order.

Some living beings have also seen the advantages of hexagonal organization and utilization, such as honeycombs of bees.



	NATURAL STONE	STONESIZE
Weight <small>kg/m2</small>	56	21
Flexural Strength <small>kg/m2</small>	-	19
Installation <small>min</small>	10	5
Thickness <small>max size</small>	20-30mm	5mm





BIG



LIGHT



STRONG



EASY

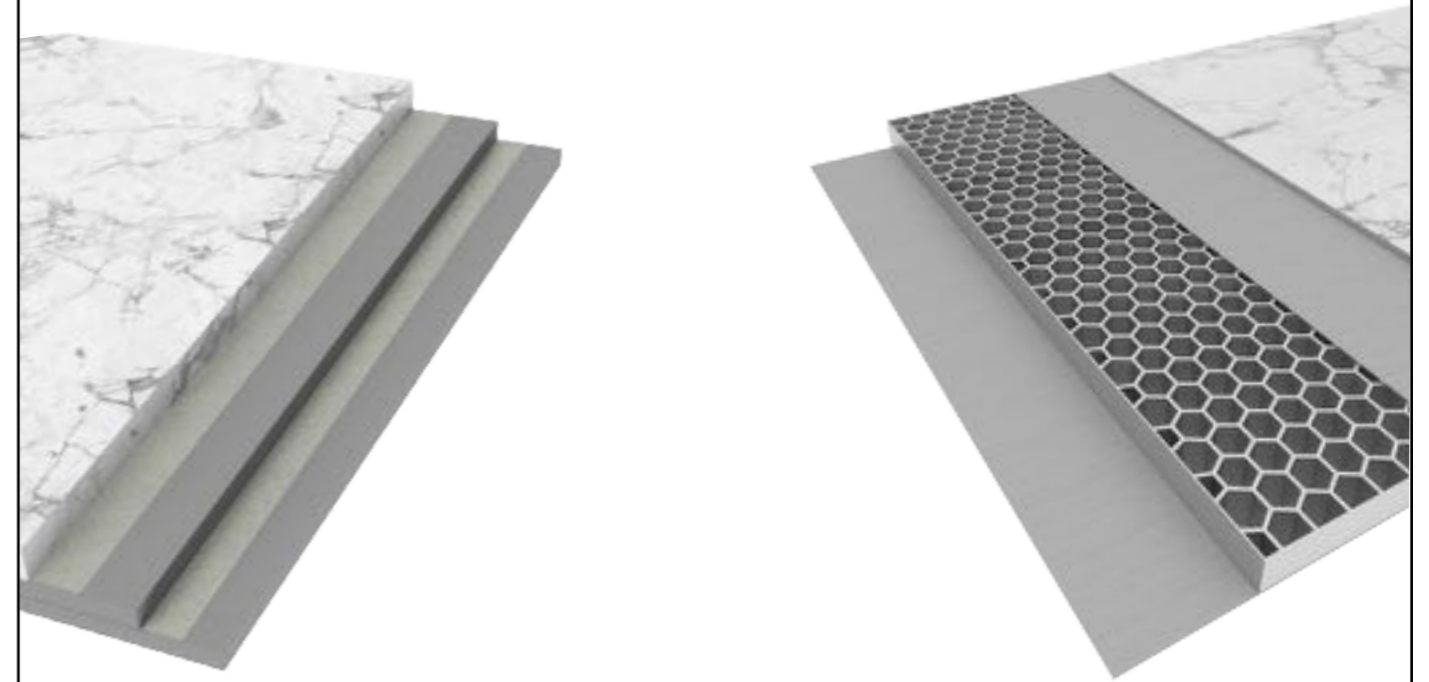


NATURAL

ULTRAPERFORMANCE

We improve the physico-mechanical properties of the natural stone combining different materials adapting them to each application.

Therefore by using ARQMAT, it is possible to emphasize in the reduction thickness of the stone, the lightness and to improve the resistance, which leads to manufacture ULTRASIZE formats.



COMPOSITE TECHNOLOGY

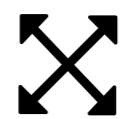
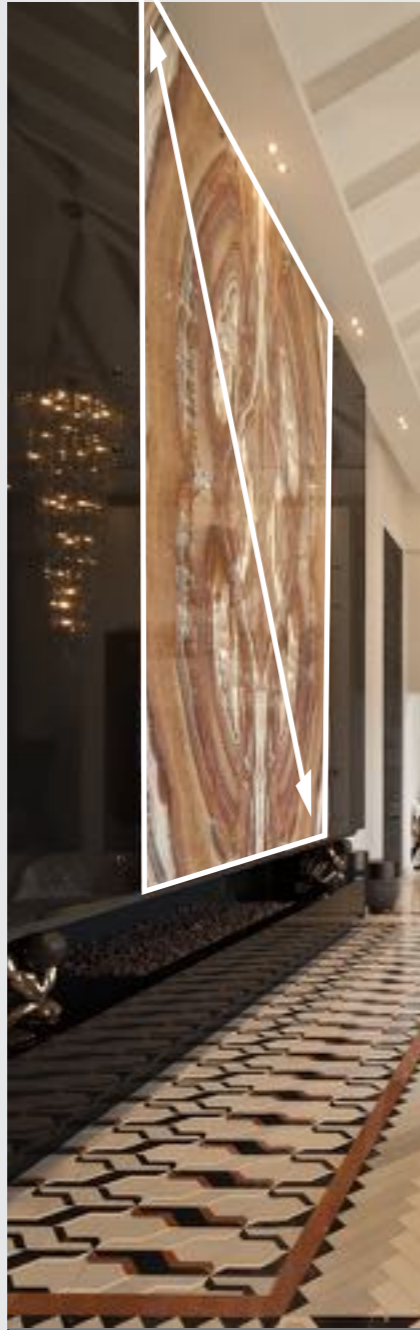
Inspired by nature, improved by technology.

It has been developed by ARQMAT Natural Stone through our Research Department aiming to offer the best technology in the market of the ultra-light natural stone coverings.

ARQMAT consists in a thin layer of composite panels with natural stone, reinforced by ultra-light compact materials such as honeycomb panels. Thus reducing the weight of dimensional stone by 60% by making it an ideal solution for the naval industry, residential and contract design.

ARQMAT

ADVANTAGES



BIG

Ultrasize



LIGHT

12kg / m²



STRONG

High Flexural Strength and
Impact Resistance



EASY

Best manipulation and
installation



NATURAL

Made with materials
respecting the nature of the
stone



LIGHT

ARQMAT consist in composite panels of thin layer of natural stone reinforced by ultra-light compact materials such as honeycomb panels.

Honeycomb geometry allows minimal weight due to the structures of an array of hollow cells formed between thin layers of vertical walls.

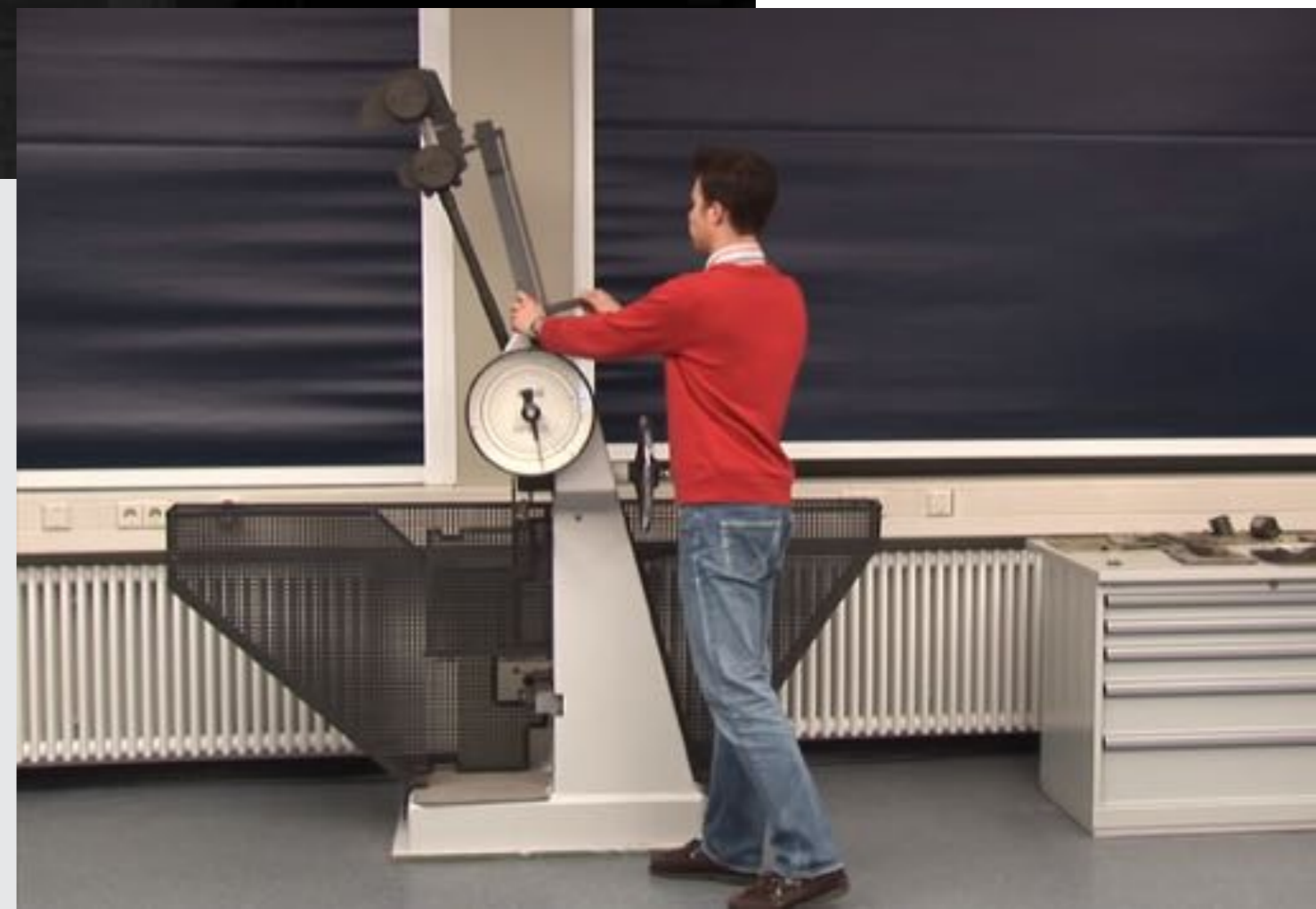
Honeycomb technology is used in constructions for a wide range of industrial applications, from aircraft, boat hulls and train interiors, to sports equipment, car chassis and body panels.

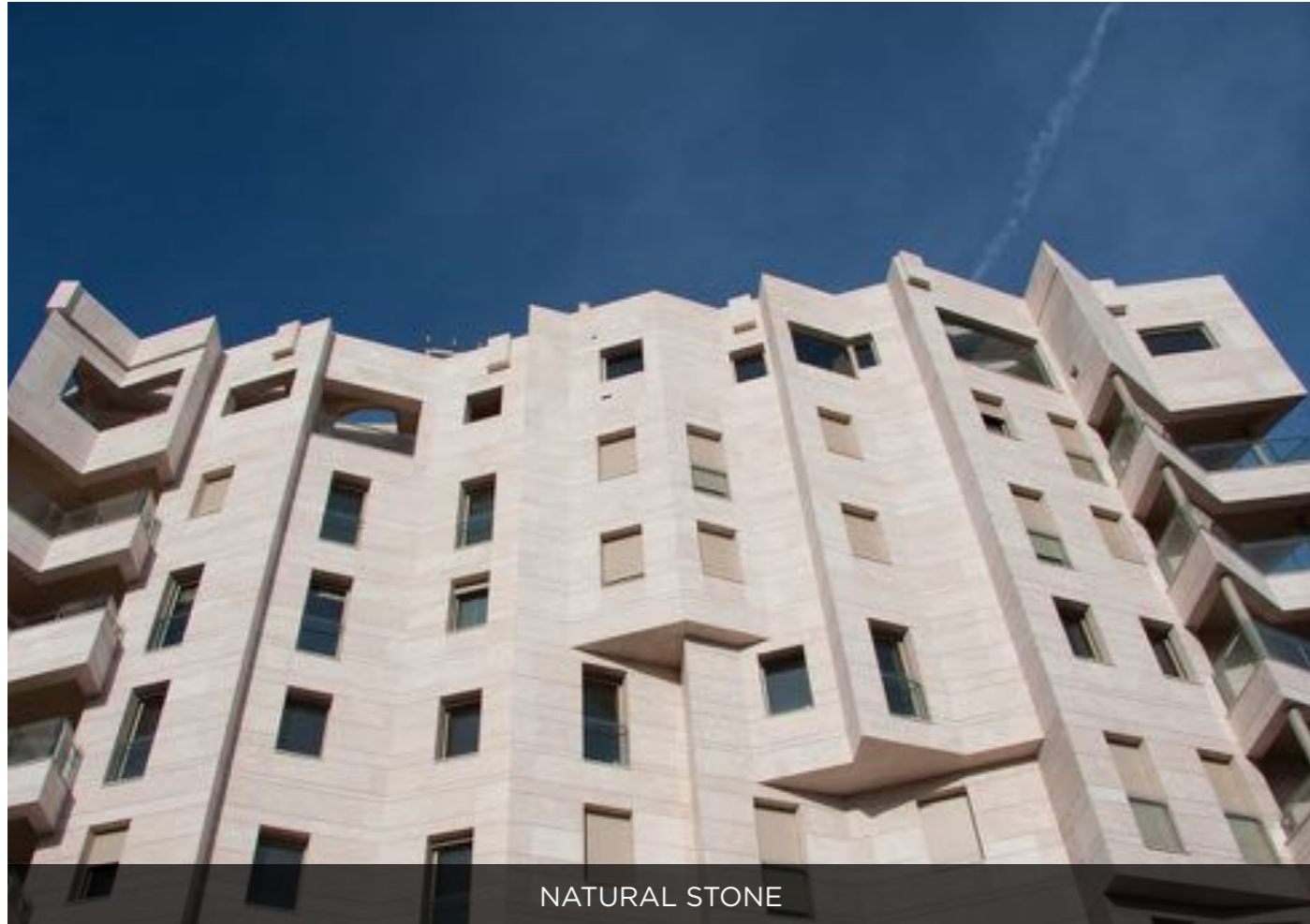


STRONG

Honeycomb works well as an energy absorber as it crushes uniformly at a known load, has a very long stroke, and has the highest crush strength-to-weight ratio of all the energy absorption materials.

Aluminum core has a crush stroke between 70% - 80% of its height, depending on its density (lower the density, longer is the stroke).

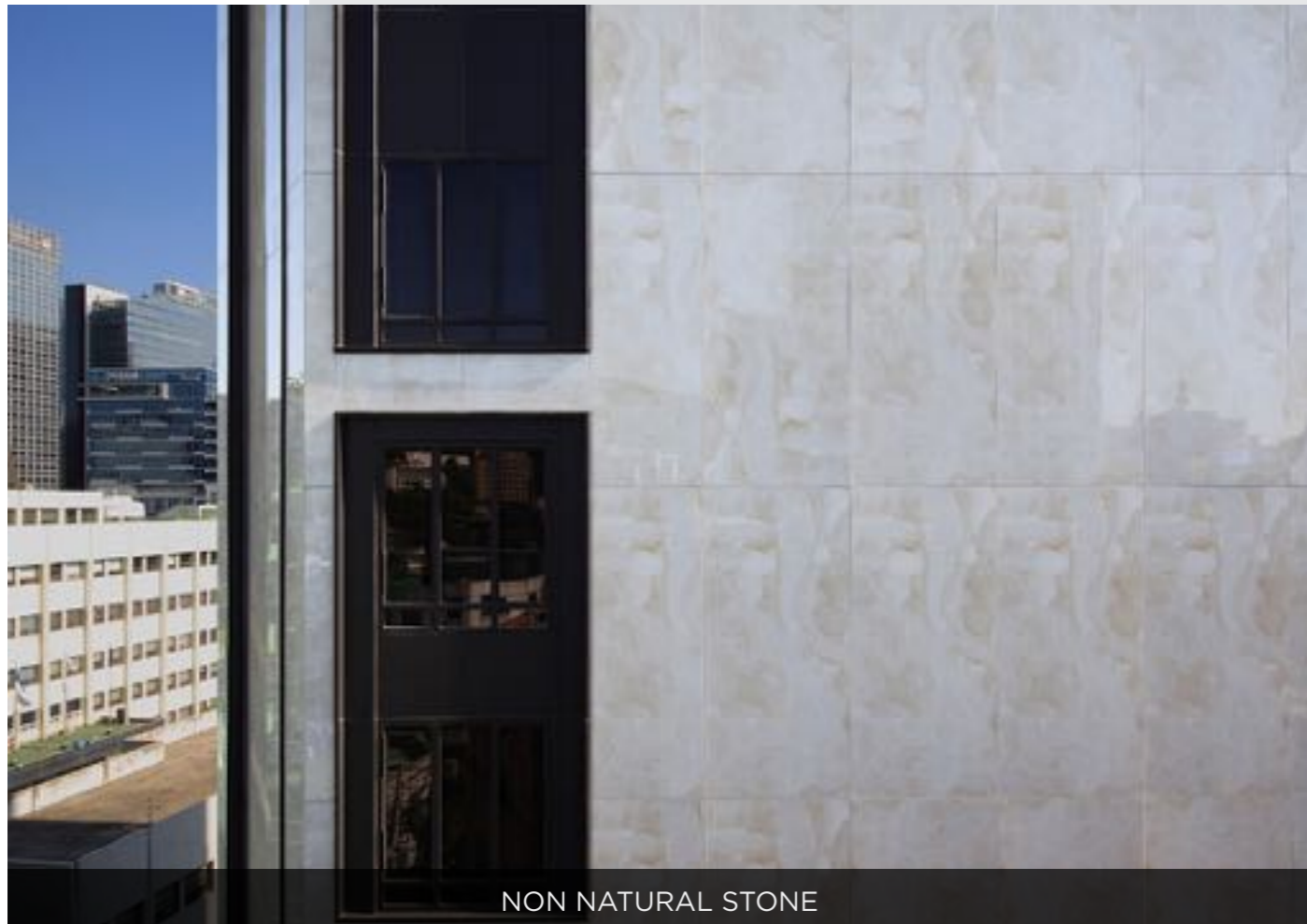




NATURAL STONE



NATURAL



NON NATURAL STONE

- As it is a natural material, it does not contain substances harmful to health.
- It is a fireproof material, it is not flammable.
- High resistance to compression, which leads to a long life, it is an “eternal” material.
- Good thermal regulation, the stone is a material that constitutes a good insulator in all the senses, providing the necessary freshness in summer and the warmth that winter demands, provided that the walls equal or exceed 50 cm. What is also an energy saving.
- It is a very versatile material. There is no other that presents so many different colors and textures. No two natural stones are the same, the variety is practically unlimited.
- Unique element in decoration. The stone provides interesting properties creating an incredible sense of comfort, elegance and even luxury difficult to match.

BIG

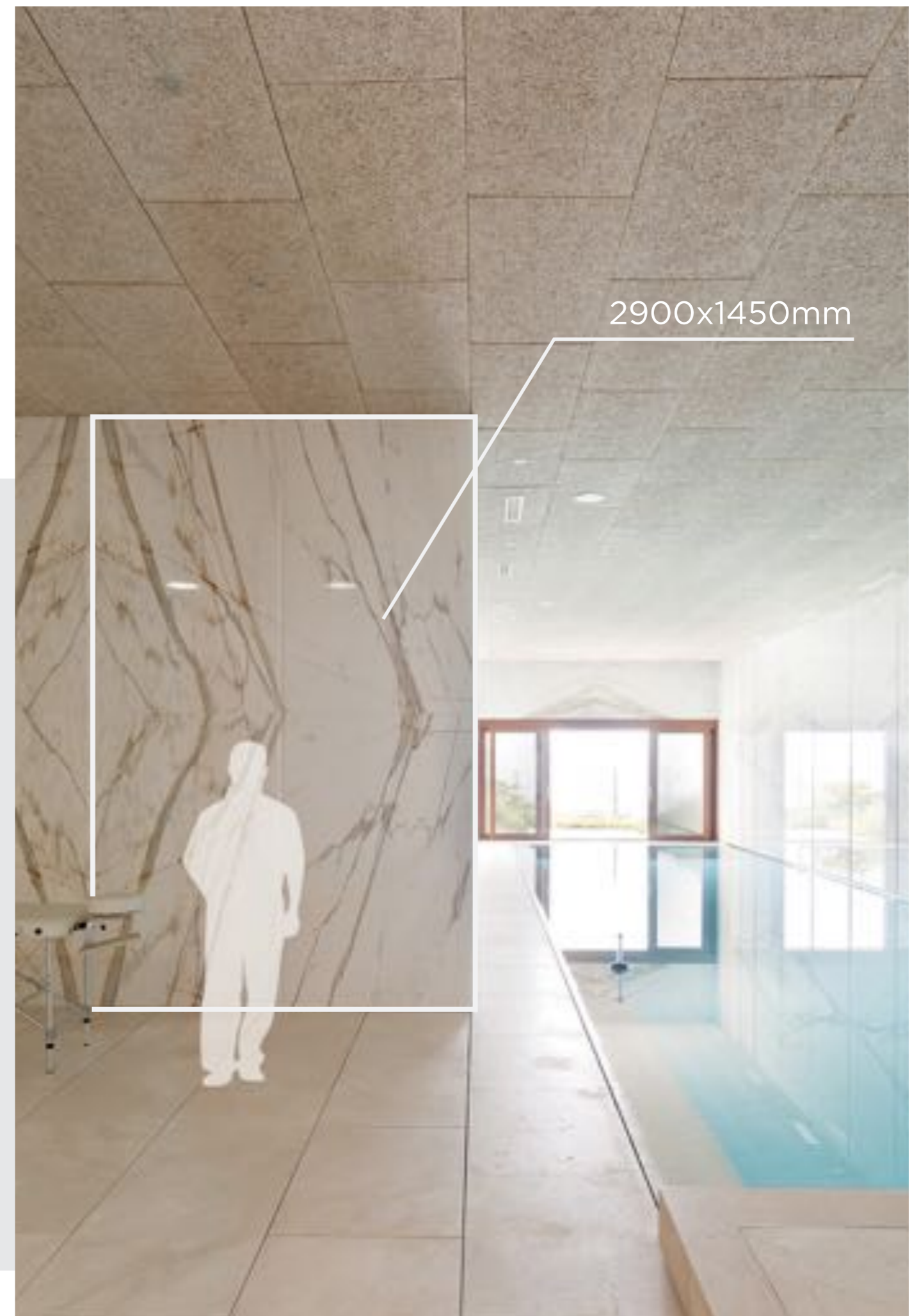
ARQMAT is presented in panels of large format and minimum thickness, enriching the design possibilities at levels hitherto unknown.

These panels have measures of 2900mm. x 1450 mm. and thicknesses from 5 mm. up to 20mm. according to the application, the design, or the desired effect.

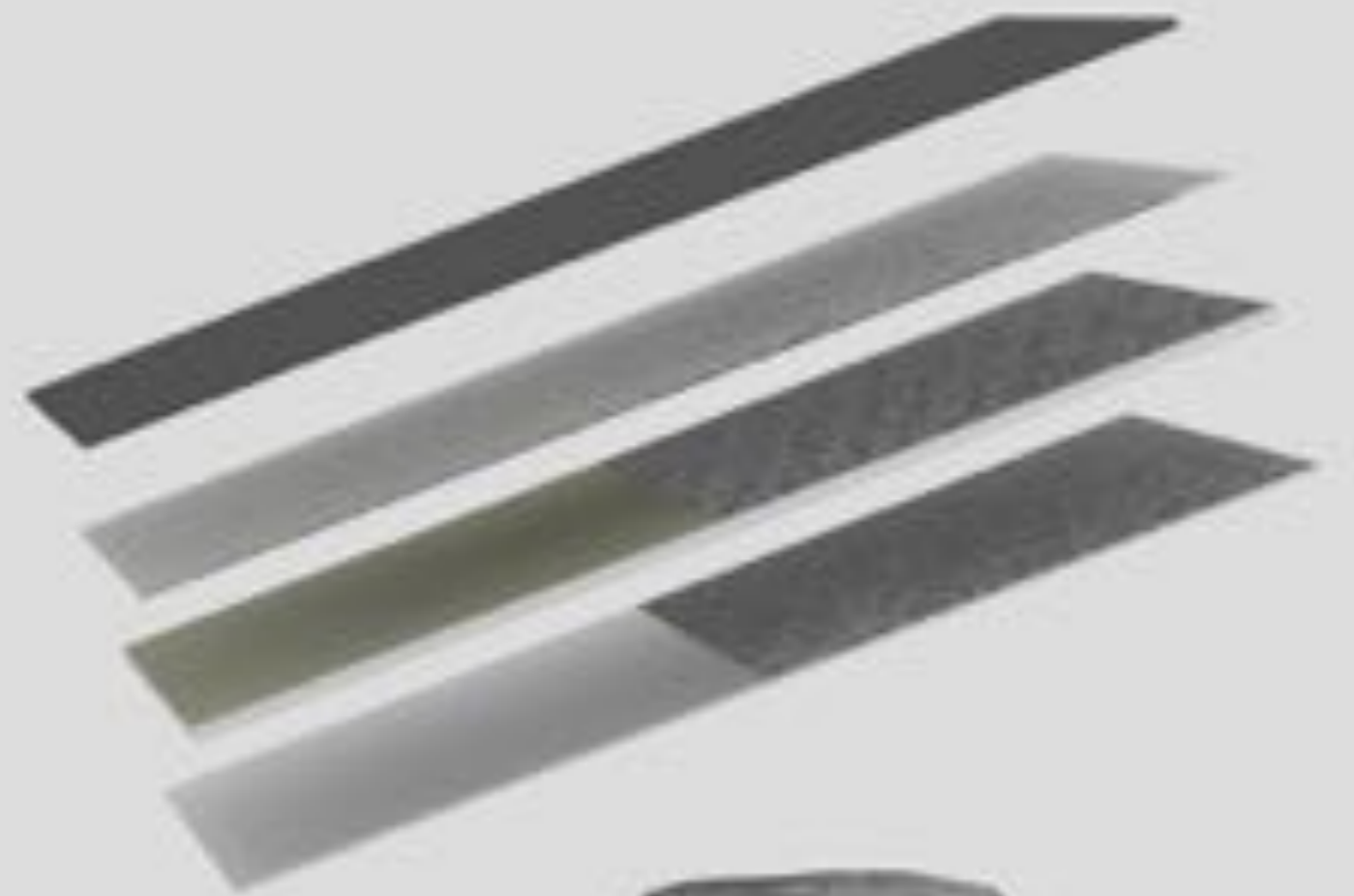
There are several advantages due its dimensions. It has a great flexibility, lightness and strenght in its mass.

The extraordinary capacity of stonysize enable to develop different design surfaces and spaces without cuts and no limits.

ARQMAT allow to bring out the nature of stone by revealing its colour and textures to flow freely in all directions and all at once by expressing the fullness nature of the stone.




A R Q M A T

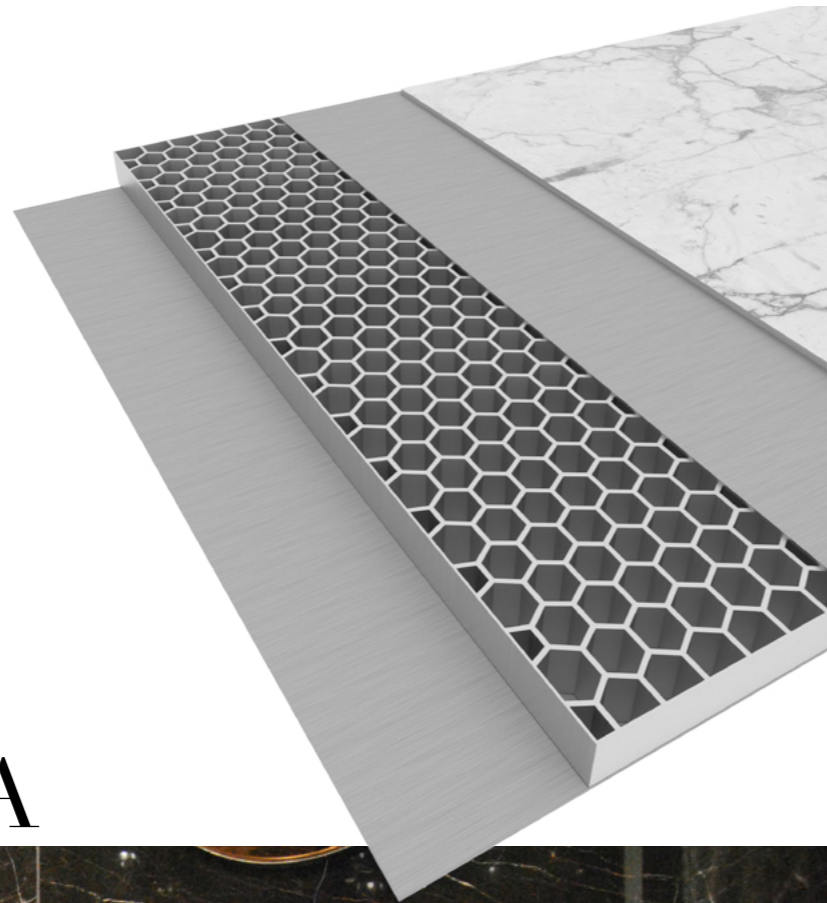




ALUMINUM HONEYCOMB

Due to its composition, the weight is reduced which improves transportation savings, increases the resistance, and also making it possible to ULTRASIZE formats.

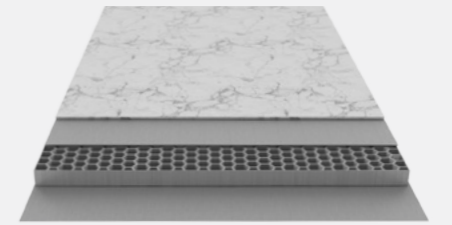
ARQMAT is specially designed for naval interior design and contemporary furniture.



SSHA



1. Natural Stone
2. Aluminium Film
3. Honeycomb Panel (Al)
4. Aluminium Film



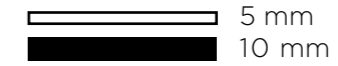
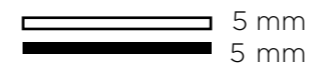
Max Size



Standard Sizes

2900 x 1450 mm	114,2" x 57"
1450 x 1450 mm	57" x 57"
1450 x 750 mm	57" x 28,5"
725 x 725 mm	28,5" x 28,5"

Thickness



SSHA	5+5	10+5	20+5
Total Thickness	11mm	16mm	26mm
Panel Weight	19 kg/m ²	20,5 kg/m ²	22,5 kg/m ²

Applications



Interiors



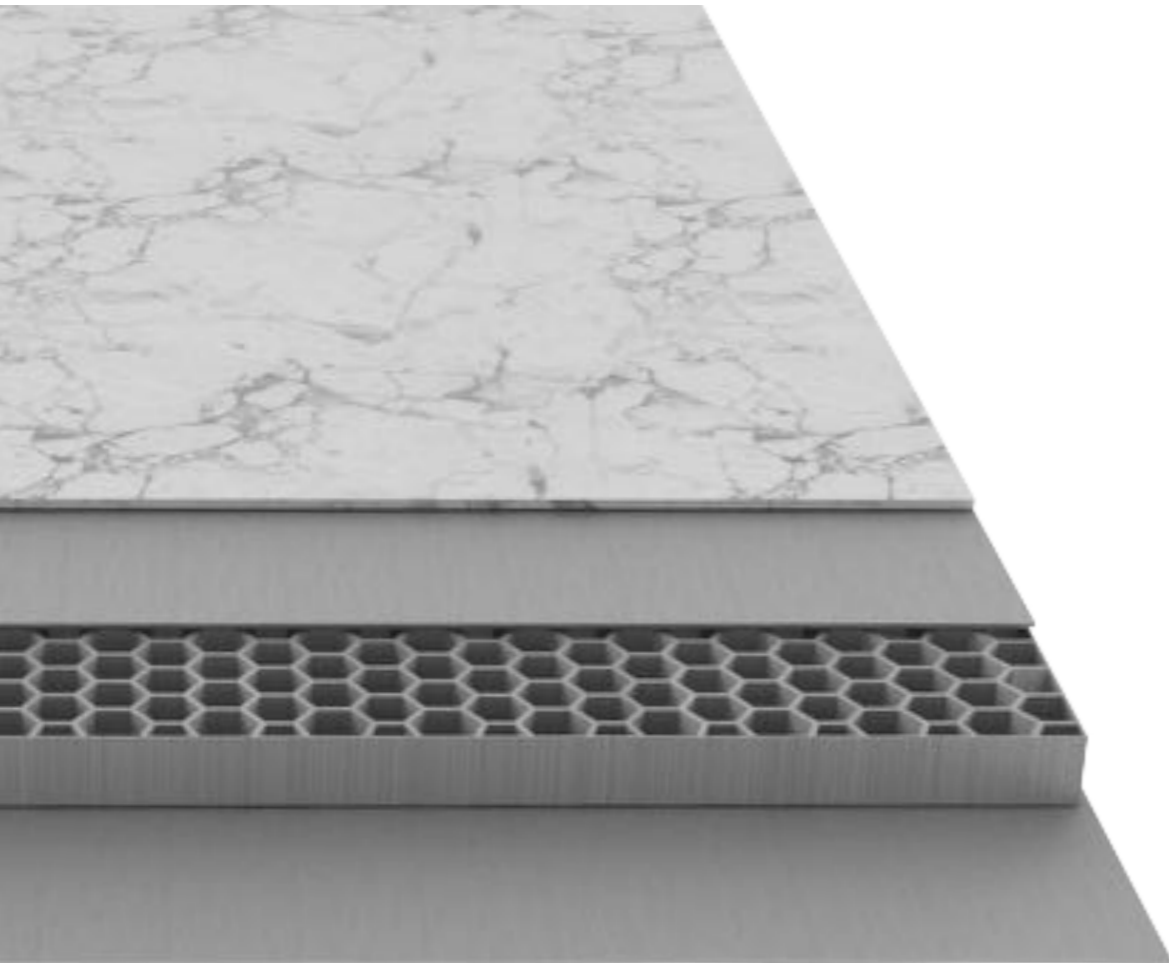
Furniture



Naval



Raised Floors



ALUMINIUM HONEYCOMBSSHA

DIMENSIONAL FEATURES

Total thickness	28 [mm]
Total Weight	28,11* [kg/m ²]
Thickness tolerance	-0 / +3 [mm]
Width tolerance	± 2 [mm]
Length tolerance	± 2 [mm]
Aluminum Internal skin thickness	1,0 [mm]
Aluminum External skin thickness	1,0 [mm]
Cell size / foil thickness	3/8" - 9,52 [mm] / 70
Stone thickness	8 [mm]
Stone Density	2.56 g/cm ³

MECHANICAL FEATURES

Test	Standard Ref.	Value
Volumetric weight (density)	EN 1936:2007	872* [kg/m ³]
Flexural strength - compression through stone face	ASTM C880	>6,5 MPa
Flexural strength - compression through fiberglass back face	ASTM C880	>3,3 Mpa
Tensile test for adhesive bond	EN1348 (as ASTM1583M)	>1,1 N/mm ²
Determination of resistance to ageing by thermal shock. Tensile test for adhesive bond.	EN14066 / EN1348	>0,6 N/mm ²
Determination of resistance to ageing by SO ₂ action in the presence of humidity. Tensile test for adhesive bond.	EN13919 / EN1348	>0,8 N/mm ²
Determination of resistance to salt crystallization	EN12370 / EN1348	>0,6 N/mm ²
Strength of individual stone anchorages in dimension stone	ASTM C-1354	>1200 N / _{NUT}

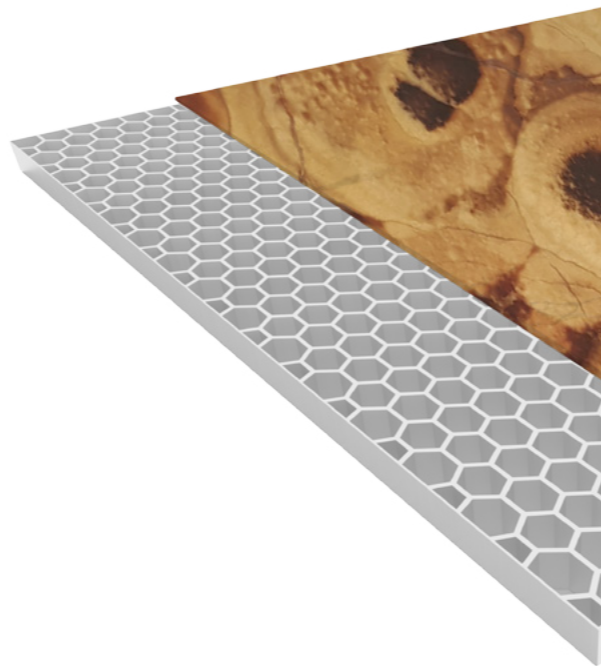
SSHA



POLICARBONATE HONEYCOMB

Created to support translucent materials for interior decoration functionality allows to backlight the stone.

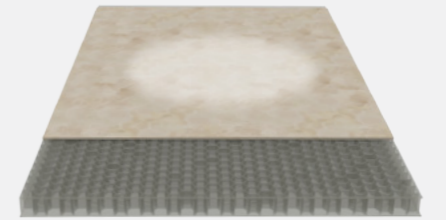
AROMAT provides lightness and luminosity compared with conventional stones.



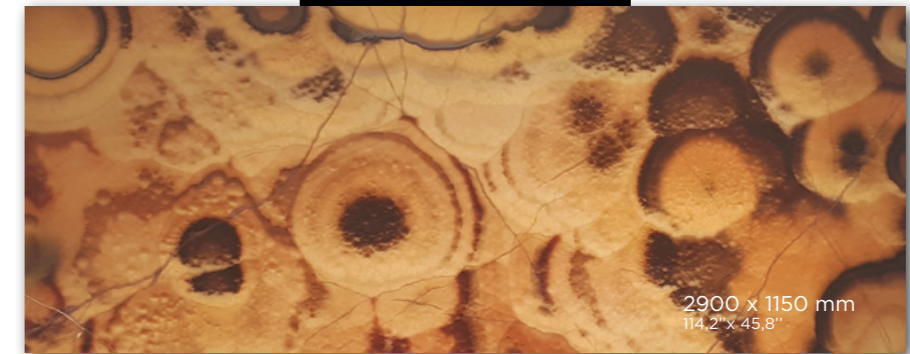
SSPO



1. Natural Stone
2. Fiberglass Film
3. Honeycomb Panel (PC)
4. Fiberglass Film



Max Size



Standard Sizes

2900 x 1150 mm	114,2" x 45,8"
1450 x 1150 mm	57" x 45,8"

Thickness



SSPO	10+5
Total Thickness	16mm
Panel Weight	19 kg/m ²

Applications



Interiors



Furniture



Naval



Endless Design Possibilities





NATURAL STONE

COLLECTION



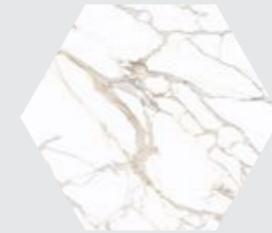
ATENEA



SILK WHITE



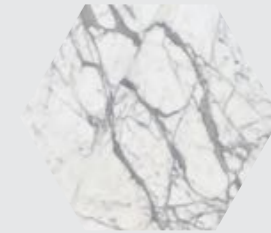
C.PREMIUM



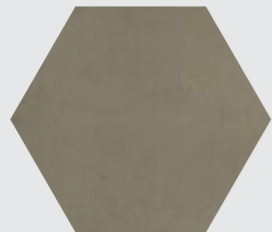
CALACATTA



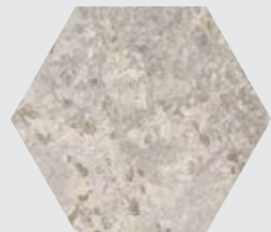
CALACATTA LINCOLN



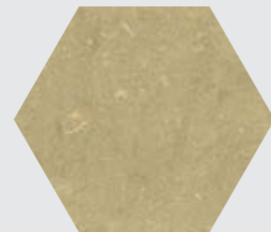
STATUTARIO



PANGEA



PACIFIC GREY



OSIRIS GREY



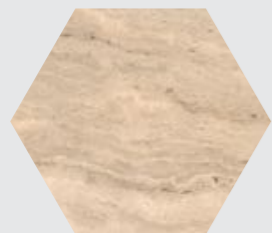
PICASSO GREY



ONIX WHITE



TAJ MAHAL



TRAV. CLASSICO



THASSOS



ICEBERG



ONIX ORANGE



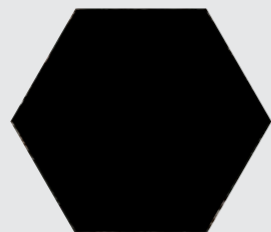
SEQUOIA



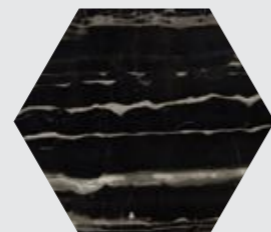
NERINEA



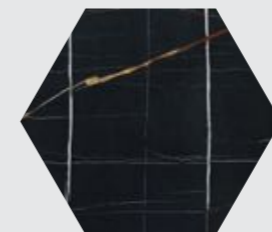
SAINT LAURENT



VULCANO



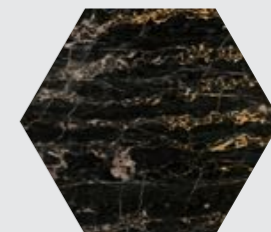
BLACK DUNE



BLACK MIRAGE



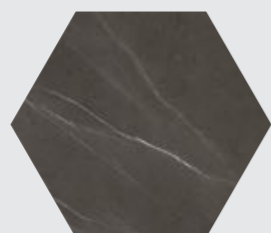
CALACATTA GOLD



PORTORO



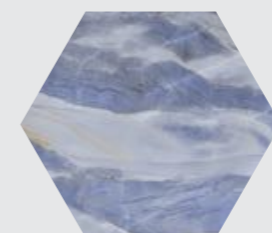
BLUE VIOLET



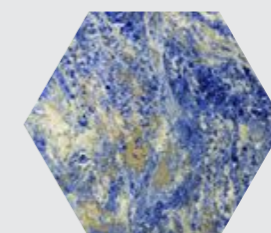
PIETRA GREY



OASIS BROWN



MACAUBA



SODALITE



RED REVOLUTION

APPLICATIONS



INTERIORS



FACADES



NAVAL



FURNITURE



INTERIORS

We have carried out projects all over the world to develop large format projects, thanks to ARQMAT.

Weights are reduced in transport and facilitate installation, a single person could place a slab in 2900x14500mm sizes.

ARQMAT is the best solution to get unique designs with appearances that could only be reached with this technology.



NAVAL

Our company produces finished product, we are able to provide a complete project for your super yacht to your demand.

We are also making furniture in Stone Size, which can be a fantastic alternative as far as weight solutions for super yachts.



FURNITURE

Thanks to AROMAT we can create ultralight furniture, making designs that favor portability, maintenance, cleaning and house redecoration, because there is no need for great efforts to move.

We have a wide variety of own designs in stock and we also make custom furniture.

AROMAT has own designers, who creates unique and timeless designs that will make the spaces authentic works of art.





FEATURED PROJECTS





PRIVATE RESIDENCE **ANGOLA**





A R Q M A T

info@arqmat.com
www.arqmat.com