### MERMEREN Kombinat

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Nature has given us many hidden treasures. Our ancestors have managed to discover one of them, and for the last sixty five years, we have been carefully utilizing it and turning it into timeless works of art - each one of unique beauty and noble appearance



Introduction

**MERMEREN** Kombinat AD Prilep, Republic of Macedonia, is the global leader in the extraction and processing of snow-white marble.

**BIANCO SIVEC®** is the registered trademark of the fine-grained, white, dolomitic marble, extracted from the quarries of our Company, near the town of Prilep. The marble-bearing deposits in the area are globally recognized and are among the largests in the world.

The unique characteristics, the exclusive white appearance of BIANCO SIVEC® marble, combined with the huge reserve potential and the big production capacity, comprise the competitive edges that allow the Company to undertake large projects and carry them out in a timely manner.

The Company is export-oriented, with exports mainly to the following global markets: China, Middle East, Singapore, South America, India, Italy, Greece and Spain.

### Quick facts:

- BIANCO SIVEC® is a brand with tradition;
- Uniqueness in white color and appearance;
- There are huge reserves that make the material suitable for big and challenging projects



### Mission

To deliver superior value to our Investors and Clients on the back of our unique snow - white marble through excellent operation, motivated employees and adherence to the highest ethical, safety and environmental standards.

### VValues

Excellence in how we operate

Integrity in how we treat (all) stakeholders

Responsibility in how we affect society and nature

### Vision

To drive a new era of development, growth and productivity and become a benchmark Company in the marble industry.



### ompany

MERMEREN Kombinat was set- up in 1946 and since then, it has been exploiting and processing BIANCO SIVEC® white marble.

Stone Work Holdings a Dutch Company owned by private equity funds managed by NGBI Private Equity, owns 88.4 % of the Company's shares.

The Company is fully integrated. The five large quarries are operated on a long-term concession basis that guarantees a steady supply of raw materials. In the large and modern production facilities, big size projects with strict quality requirements can be carried out. Both the carefully selected commercial network and the proximity to the port of Thessaloniki, Greece (approx. 200 km), which is used as the main logistics hub, allow the distribution of BIANCO SIVEC® to all continents.

NBGI Private Equity along with the

management team, aspire to organically grow the business through the expansion of the production capacity and the distribution capabilities, while building further the Company's brand awareness on an international scale.



### **PRODUCT PROPERTIES**

BIANCO SIVEC® white marble can be classified in the following quality categories, based on physical characteristics:

QUALITY	SPOTS	VEINS	COLOR
EVINCO SIVEG <sup>®</sup> EXTE	RA Almost free of spots	No	Pure white
EVANCO SIVEC <sup>®</sup> A	Very few grey spots	No	White
evanco sivec <sup>®</sup> pa	Occasional grey spots	Few grey veins	White
evanco sivec <sup>®</sup> pb	Frequent grey spots	Occasional grey veins	White
entheo einfe <b>b</b> CD	Numerous grey spots	Frequent/Strong grey	White

### **CHEMICAL PROPERTIES**

An indicative chemical analysis of BIANCO SIVEC® marble is the following:

CHEMICAL COMPOUND		PERCENTAGE
CaO	%	31.71
MgO	%	19.82
SiO <sub>2</sub>	%	0.03
TiO <sub>2</sub>	%	0.02
$Al_2O_3$	%	0.03
Fe <sub>2</sub> O <sub>3</sub>	%	0.01
FeO	%	0.01
MnO	%	0.01
LOI	%	48.02

## **Dur Products**

The extraction of BIANCO SIVEC  $^{\rm B}$  marble is dated back to 500 BCE.

Extraction from the quarries near the ancient city of Stibera (today known as Prilep) flourished under the Roman period. It was used for the production of both antique Roman original sculptures and replicas of Greek original bronze sculptures.

Through the centuries, BIANCO SIVEC® was used for many building and construction sites, such as the reconstruction of Roman Emperor Diocletian's Palace in Split, Croatia and many other visually stunning creations of the ancient world.

BIANCO SIVEC® enjoys a remarkable globalreputation. Its whiteness, homogenous form and the micro-granular structure, combined with the worldwide scarcity of snow-white marble resources make it the preferred choice for many

international high-end projects including mosques, hotels, palaces, commercial and residential buildings, villas, artworks etc.

Our material can be used in a series of applications including but not limited to cladding of internal /external, vertical / horizontal surfaces (floors and walls), art works, crafting and molding.

	EN (EUROPEAN STANDARD)	
PHYSICAL AND MECHANICAL PROPERTIES	MAX./ MIN. VALUES	AVERAGE VALUES
Water absorption at atmospheric pressure (%)		0,1
Apparent Density (kg/m3)	2849/2847	2848
Open Porosity (%)		0,41
Compressive strength (Mpa)	143.37/187.26	167
Abrasion Resistance (mm)		24,5
Flexural strength (Mpa)	11.2/13.7	12,5
Determination of frost resistance (Mpa)		12,4
Absorption coefficient by capilarity (g/m2.s0.5)		0,676
Determination of the brekanig load at Dowel hole F(N)		1600

	ASTM
PHYSICAL AND MECHANICAL PROPERTIES	AVERAGE VALUES
Water absorption by weight (%)	0,11
Compressive strength (Mpa) Dry	184
Compressive strength (Mpa) Wet	191
Modules of rapture (Mpa) Dry	12,8
Modules of rapture (Mpa) Wet	13,8
Flexural strength (Mpa) Dry	12,2
Flexural strength (Mpa) Wet	12,0
Bulk Specific gravity (kg/m3)	2854
Abrasion resistance to foot trafic (Ha)	10,61





The Company operates five large-scale quarries that cover around 30% of the concession area of 1.9 km2, making it the largest white marble quarrying area worldwide. The quarries are located 10km NE from the city of Prilep.

Based on the generic and morphological characteristics of the deposit, the area belongs to the Pelagonic zone, which continues into Greece.

In our quarries we use machinery and equipment of the latest technology, operated by a specialized work force of more than 200 people.

All the quarrying activities are supported by a team of technicians, aiming to serve any maintenance work needed. A steady annual supply of around 80,000 tones of raw materials can be currently guaranteed. Within the area of the quarries, there is also a large open-air stock yard for marble blocks, ready for selection by the customers. Starting in year 2010, an extensive and professionally designed research program of drill-holes has been taking place, aiming to define the exact huge reserve potential of the concession area.

The BIANCO SIVEC® deposit is widely known not only to the business world but also to the scientific community thanks to its unique quality characteristics.



## Processing Plant

The processing plant is situated in the city of Prilep,only 10 kilometers away from BIANCO SIVEC® quarries. The factory's total area is 65,000 m2, including a large stock yard for the final products.

The processing equipment includes:

- 7 gang saws (5 Barsanti, 1 Carl Meyer and 1 Gisbert)
- 8 bridge saws (4 Carl Meyer, 2 Gisbert, 1 Barsanti and 1 Mikrosam)
- 4 block cutters (3 Pedrini and 1 Gisbert)
- 2 CNC machines (1 OMEC and 1 BAVELLONI)
- 3 polishing lines

BIANCO SIVEC® raw materials are vertically processed in the company's own production facilities. Slabs and tiles, both polished and

unpolished, in a variety of dimensions, as well as pebble mats, wall panels (bush-hammered) and custom-made products in CNC machines are some of the products that can be produced in the plant.

In the processing plant, extensive projects can be carried out thanks to the "know-how" of 140 experienced workers and technicians that make sure that each and every single product is made according to the requirements of the customer and according to the highest international quality standards.



### Safety and Eco Sensitivity

The Company is committed to a continuous effort of enhancing the safety capabilities and standards, in order not only to meet the increasingly strict safety standards required by the law, but also to exceed them.

MERMEREN Kombinat has been investing in new equipment in order to ensure noise, dust and vibration control. Regular monitoring of all these parameters is carried out, aiming at a continuous improvement of the working environment.

The mine site has been designed to drain rain water and recycle used water for the needs of the production activities as well as for dust suppression.

Environmental projects have been approved by the government and implemented in the effort to minimize the visual disturbance of the environment.







### rojects

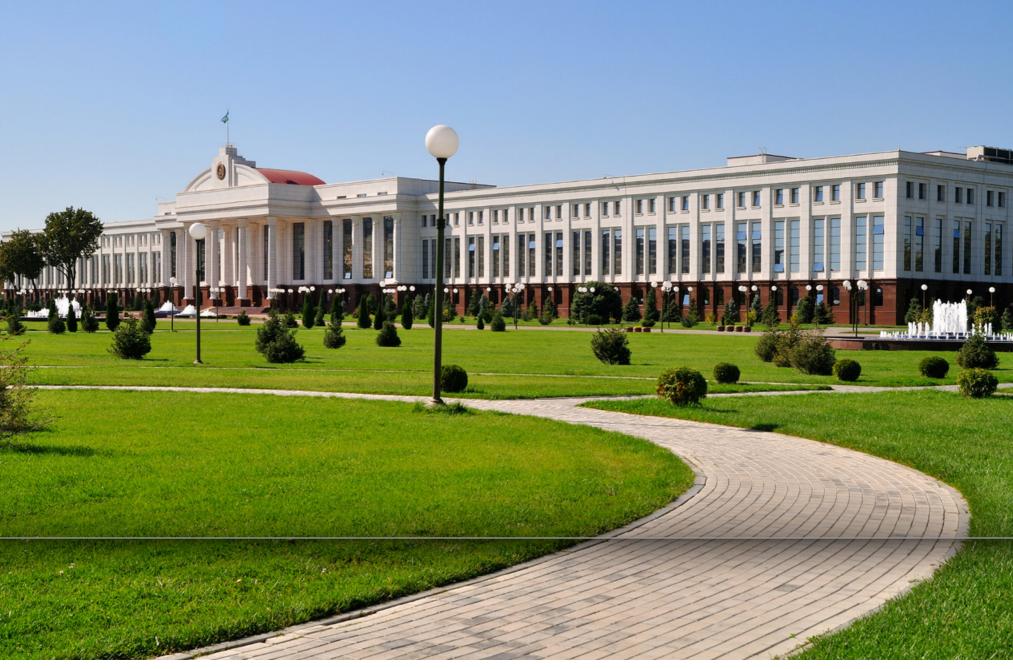
### Sheikh Zayed Grand Mosque, Abu Dhabi

The majestic Sheikh Zayed Grand Mosque isone of the most beautiful religious objects in the world. It is the most imposing religious and national landmark in Abu Dhabi and one of the most important architectural treasures of the contemporary UAE society.

Only natural materials were chosen for its design and construction because of their long-lasting qualities, including marble, stone, gold, semiprecious stones, crystals and ceramics.

100,000 m2 of BIANCO SIVEC® were used on the external cladding, including the four minarets.





### The Senate of the Oliy Majlis of the Republic of Uzbekistan

The Senate of the Oliy Majlis is the upper chamber of the Parliament of Uzbekistan. Twelve half-circle columns and 8 entire circle formed columns are made of snow-white BIANCO SIVEC®. These columns appear in the front facade of the building as well as on the lateral walls and they are symbolizing the strong pillars of justice. Beside the columns, 6,500 m2 BIANCO SIVEC® in various dimensions were used for the exterior cladding and give to the building its prestigious white appearance.







### Ashgabat "The White City", Turkmenistan

Different qualities of BIANCO SIVEC® tiles are used for various buildings in Ashgabat, the capital and largest city in Turkmenistan.

### Cathedral of Christ the Saviour, Moscow

(about 2,000 tons massifs for process) It is situated in the centre of Moscow, next to the eminent Red Square and is the tallest Orthodox church in the world.













### Projects

### Hotels

- Sheraton Hotel, Oporto, Portugal (20,000 m2 BIANCO SIVEC®)
- Splendid Becici Hotel, Montenegro
- St. Regis Hotel, Singapore
- MET Hotel, Thessaloniki, Greece
- Capsis Astoria Hotel, Crete, Greece

### **Complexes**

- Five Luxurious Residence Complexes, Oporto, Portugal (28,500 m2 BIANCO SIVEC®)
- Sky @ Eleven Apartments Complex in Singapore (50,000 m2 BIANCO SIVEC®)
- Gran Seoul Complexes S. Korea











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