## SUSTAINABILITY





## **OUR PHILOSOPHY**



We act today, because we think about tomorrow.

While crafting products of enduring beauty and utility, in the heart of every great company lies a promise to Mother Earth.

From the moment raw materials are sourced to the firing of our creations, every process is filled with reverence for the planet.

We implemented transformative processes that stand as a testament to our vision and we're always looking for new measures that allow decarbonization and increase energy efficiency.

In our pursuit of a more harmonious relationship with our planet, we've embarked on an inspiring journey of sustainability.

Picture this: a majestic rainwater capture system dances in harmony with the rhythm of nature, while solar panels stand tall, soaking in the sun's radiant energy to power our endeavors and amidst our production processes, a gentle vacuum system whispers, ensuring that no harmful particles disturb the tranquility.

But our commitment to Mother Earth doesn't end there. We've delved deeper, integrating ingenious heat recovery systems and innovative water treatment processes.

Every droplet utilized in our production is cherished, treated, and lovingly reused, reflecting our dedication to responsible stewardship.

Looking ahead, the horizon brims with promises of further sustainability endeavors. We envision harnessing the warmth from our air compressors, electrifying our firing process, and gracefully transitioning to renewable energy sources for drying.

Together, we're not merely building a future, we're crafting an opulent tapestry of sustainability, weaving threads of hope and vitality.

We invite you to join us as we build a brighter, greener future for generations to come.



# **OURJOURNEY**



1978	2018	2019	2020	2021	2022		2023	2024	
	3 million pieces capacity installed	1st solar plant installed (25% self sufficient)	2nd solar plant installed (35% self sufficient)  New building construction (+3300 sqm)  Rain water Harvest System (300 000L)	3rd solar plant installed (40% self sufficient)  New roller kiln  2 new LEAN production lines  1st automatic packaging line	4th solar plant installed (50% self sufficient)  3 new LEAN production lines  1st Vacuum System  1st Vacuum System System	Heat Recovery System  2nd and 3rd automatic packaging lines  Air conveyor Expansion	Clay production expansion (100 tons per day; 4 different colors)  Heat Recovery System  Kaizen	5th solar plant (65% self sufficient)  2 new glazing machines  2nd vacuum System Automatic polishing Line Air conveyor Expansion	New water treatment station  Unit to process fired scrap pieces  Kaizen  12 million pieces capacity installed

## RAIN WATER CAPTION SYSTEM

300 000 litres capacity | Self Sufficient for 18 days without

rain









## SOLAR PANNELS + GREEN ELECTRICITY FROM THE GRID











1st Phase: 640 pannels of 390Wp 2nd

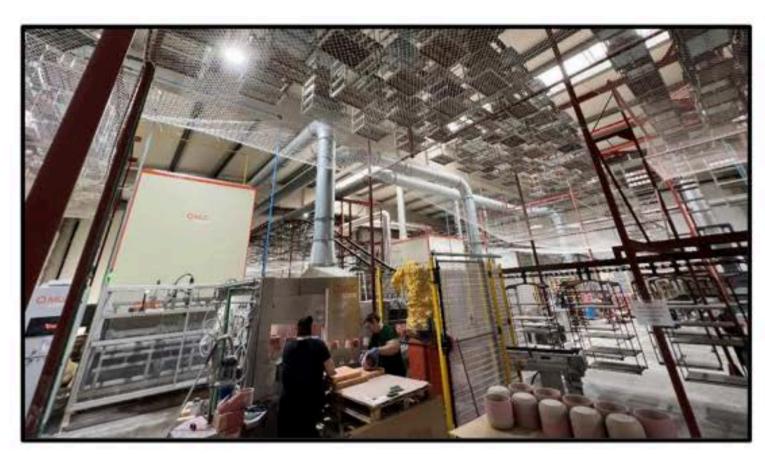
2nd Phase: 482 pannels of 410Wp

3th Phase: 483 pannels of 415 Wp

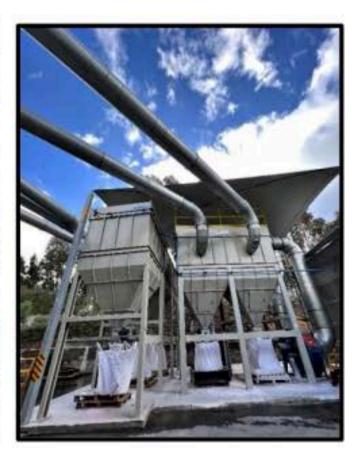
4th Phase: 784 pannels of 475 Wp

#### VACCUM SYSTEM FOR SOLID GLAZING PARTICLES









The system avoids releasing these particles into the air.

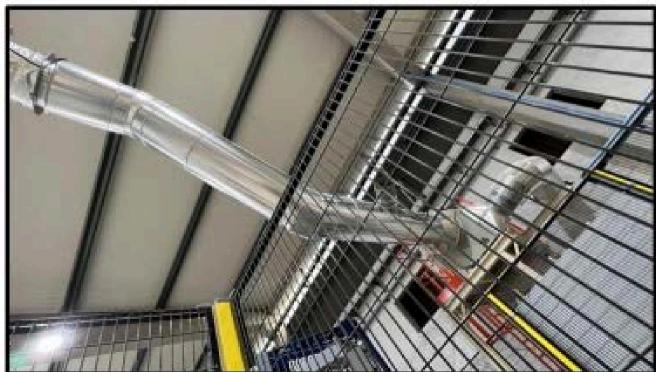
Instead, they are collected into big bags and reused in the glazing process again.

### HEAT RECOVERING SYSTEM FROM KILN TO DRYER











### **NATURAL LIGHT**









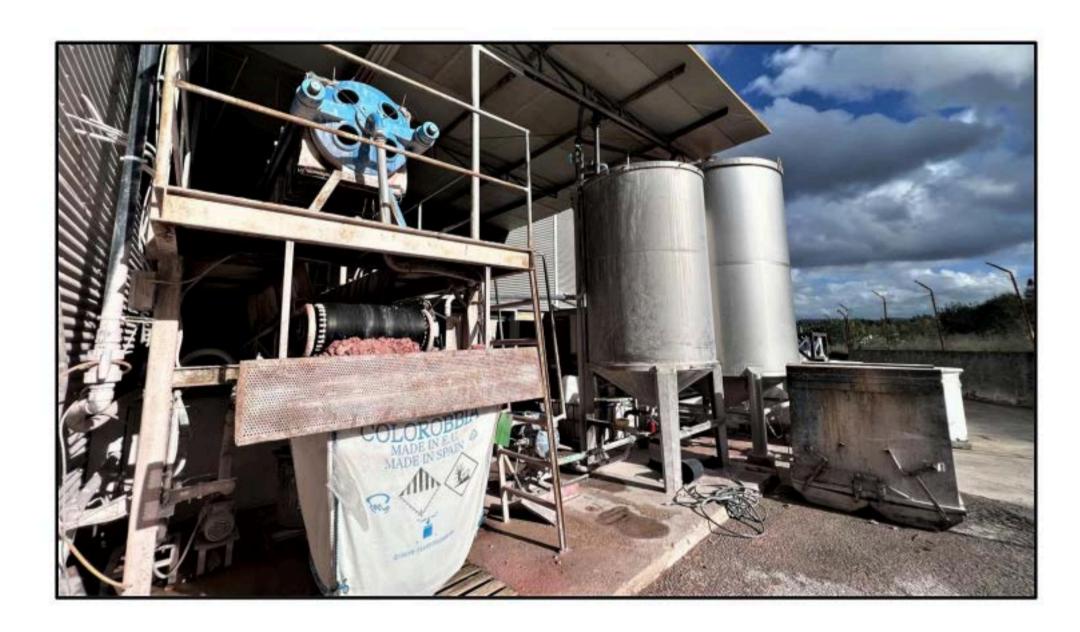




Creating a better working environment and reducing electricity consumption.

### **WATER TREATMENT**





All water used in our Production is treated in our premises being reused afterwards.

#### **RAW MATERIAL SAVINGS**









vacuum pug mill implanted in machines

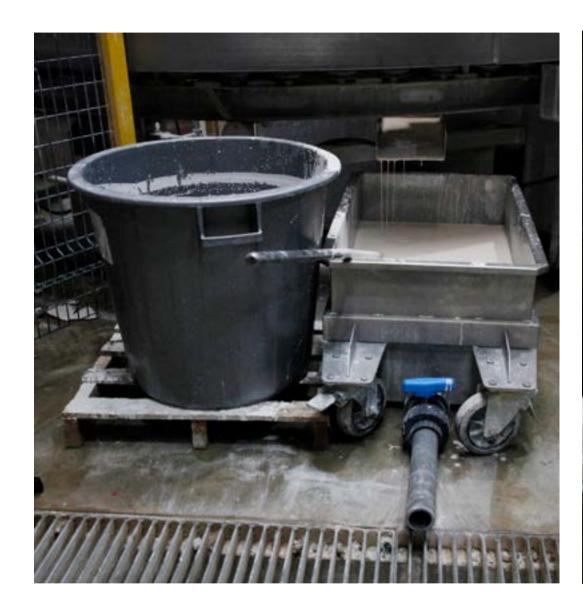
(approximately 3.5kg of reused clay per day)

 The dry clay and shavings that come out of the machines, which do not yet have a vacuum pug mill, are reintroduced into the production process.



#### **GLAZE REUSE**









In the new production unit glazing machines have a suction system that allows the glaze to be reused. Vacuum system collect the glaze, dry it and transform it into powder, which is later reinserted into the production process.

### **WASTE SEPARATION**





We separate the waste produced in our factory and send it to a team that manages it.

#### FUTURE NET ZERO EMISSIONS PROJECTS



#### **HEAT RECOVERY FROM AIR COMPRESSORS - MAY 2024**

Up to 100% of the electrical energy used by an industrial air compressor, is converted into heat, and 96% of that energy is available for recovery, the potential savings are enormous. The heat will be used into two ceramic glazing dryers - MLC.

#### 220 Kw Solar Plant over Car Park – SEPTEMBER 2024

Electricity generated will be used directly or stored in the batteries to be installed in 2025.

#### **ELETRIFICATION – NOVEMBER 2024**

Regarding the natural gas consumption, on the 3 MLC dryer's we intend to electrify this process to heat the air till 80°C.

#### **ENERGY MANAGEMENT SYSTEM - EMS - DECEMBER 2024**

**ENERGY STORAGE – JULY 2025** 

#### 1,8 Mw SOLAR PLANT - OCTOBER 2025

On 20 000 sqm owned land.

### **UPCOMING EXPLORATION**



2025 2026 2027

Heat Pump
System + 4MW
storage battery

EMS - Energy

Management

System

Automatic Slip

Casting

Automation on extruders

6th solar

plant (80%

self sufficient)

Construction

of a new

building

(+4500 sqm)

Automatic

Storage

Warehouse

Big Size Pots -

LEAN

production

lines

Hydrogen

production (to

replace up to

50% of natural

gas used

### **TAKEALOOK**

#### AT THE FOREFRONT OF SUSTAINABILITY



#### **CERTIFICATES**







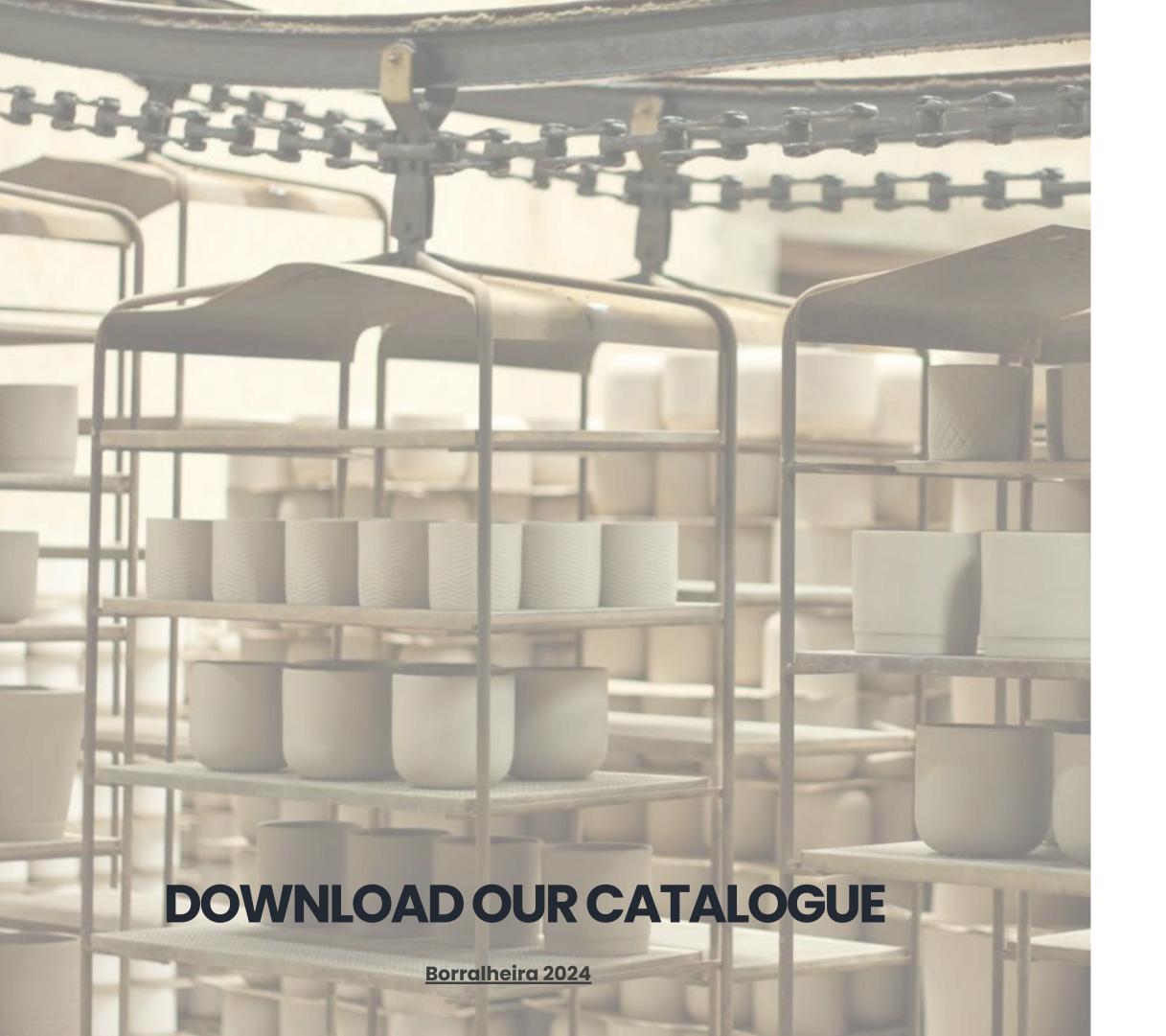




Certifica-se que, no âmbito do projeto Águeda Recicla+, a Empresa

Cerâmica Borralheira S.A.

reuniu os requisitos de sustentabilidade e de boas práticas para a reciclagem que permitem conferir a sua certificação neste nível.





## THANK YOU

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