



CHURCHILL



SUPPORTING  
FOOD SAFETY

Supporting  
**Food Safety**





AT CHURCHILL, WE KNOW THAT FOOD SAFETY HAS ALWAYS BEEN A TOP PRIORITY FOR THE HOSPITALITY INDUSTRY. OUR COMMITMENT TO SUPPORTING FOOD SAFETY REMAINS OF HIGH IMPORTANCE TO US.

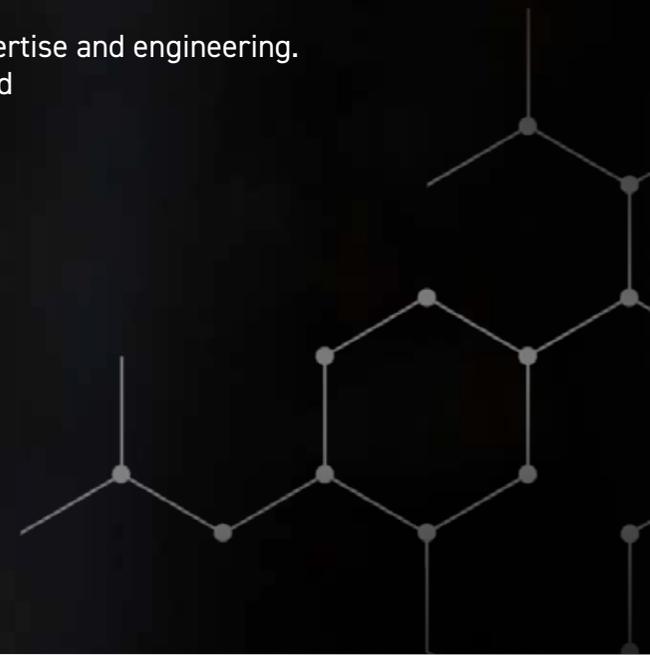
We blend centuries of experience with cutting edge technology and design innovation to produce one of the strongest ceramic bodies in the world.

Choosing our vitrified ceramic products, each with a hard-wearing superior glaze and edge chip resistance, helps to support food safety.

The perfect blend of science, expertise and engineering. Churchill products are engineered to perform, to protect and to last.



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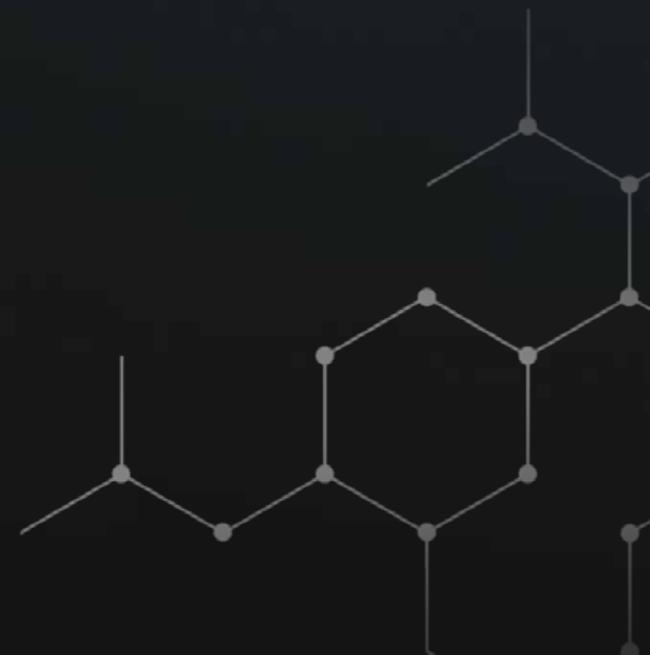


# VITRIFICATION & FIRING



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100% of Churchill's ceramics are vitrified which is essential to the hospitality industry. Vitrification is a process where we physically change the clay, melting it to make our ceramics impervious to water. Supporting food safety, bacteria has less opportunity to penetrate into the ceramic and grow.



## VITRIFICATION

Through the process of vitrification, the particle structure of our ceramic body becomes strong, dense and watertight, limiting bacteria from penetrating into the ceramic. Vitrification also aids durability, as breakages in ceramics are generally related to porosity, or how much water a piece can absorb. Water absorption weakens the physical structure affecting its durability over time.



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BRITISH STANDARD  
EUROPEAN APPROVED  
VITRIFIED HOTELWARE



BRITISH STANDARD  
EUROPEAN APPROVED  
WATER ABSORPTION

## VITRIFICATION TESTING

We test the vitrification of our product everyday, both in the kilns during firing and in our laboratory when the manufacturing process is complete.

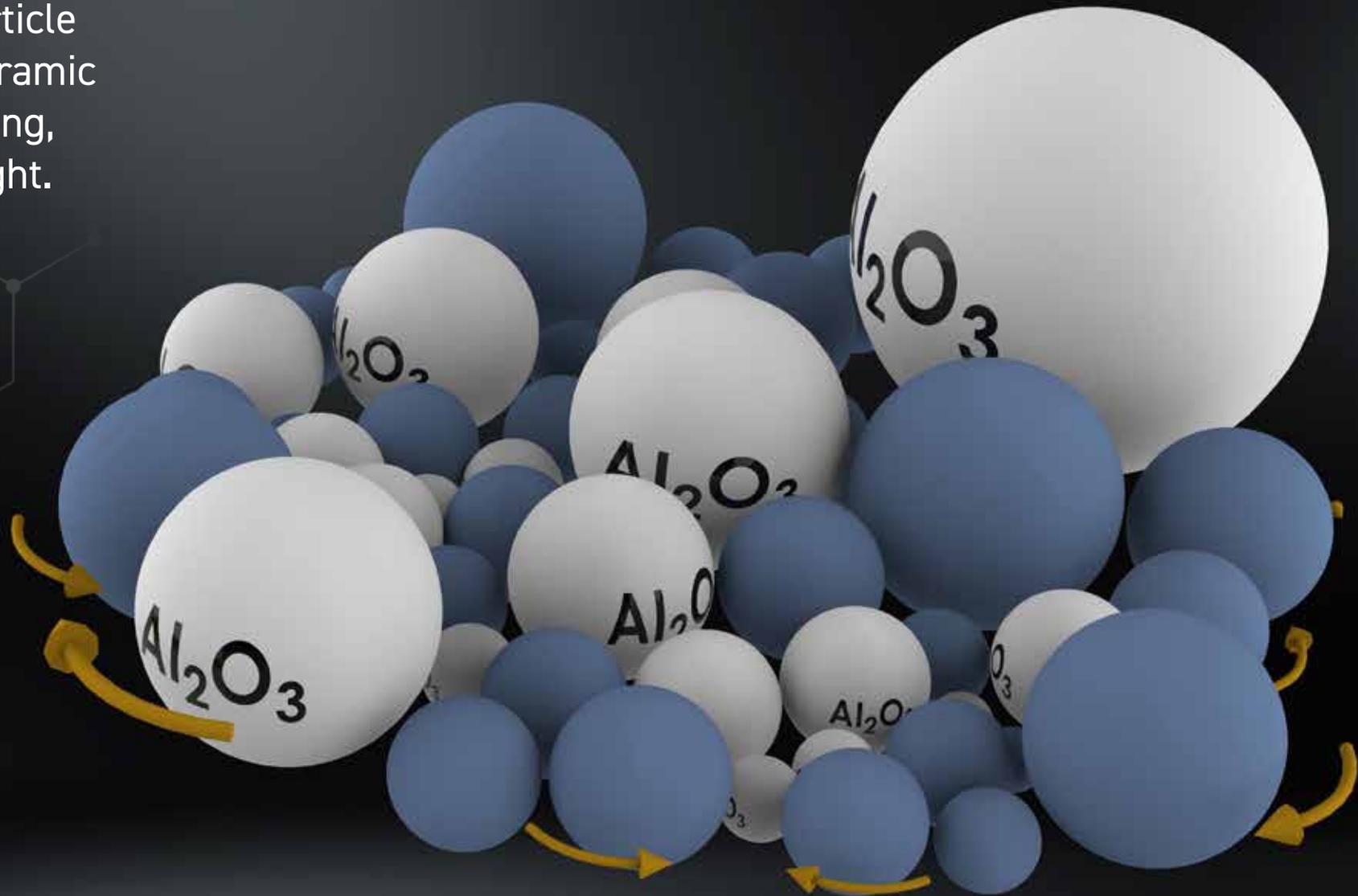
### DID YOU KNOW?

Our ceramics are impervious to water. This means that bacteria has less opportunity to penetrate into the ceramic and grow.



## DID YOU KNOW?

Through the process of vitrification the particle structure of our ceramic body becomes strong, dense and watertight.



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# WATER ABSORBENCY TEST



  
CHURCHILL  
VITRIFIED PRODUCT



0.4% WATER ABSORBENCY

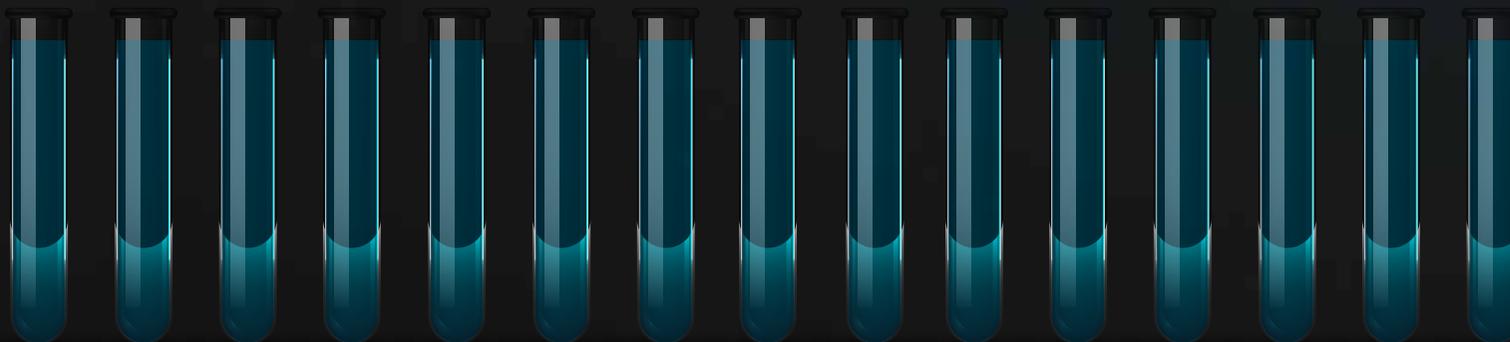


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The water absorption of a Churchill vitrified product is as low as 0.4% compared to a domestic product which has the potential to absorb up to 15% dirty water.



DOMESTIC PRODUCT



UP TO 15% WATER ABSORBENCY



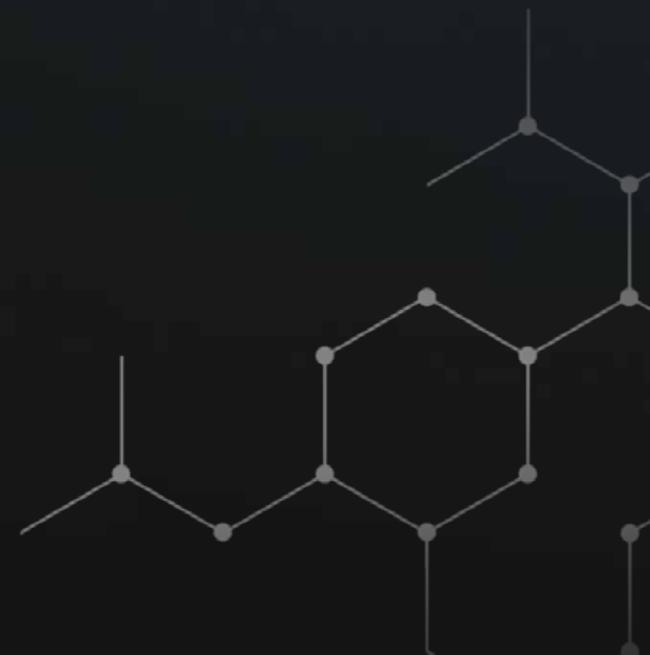


# ENGINEERED SHAPE & FORM

Every piece of Churchill's ceramic is designed with performance in mind. Through expert shape engineering, we reinforce strength and durability while continual investment in technology guarantees functionality and consistent quality.



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## DID YOU KNOW?

Our fully glazed base can reduce surface scratching when the product is stacked, limiting the potential to become an entry-point for bacteria.

## FULLY GLAZED BASE

Whilst our fully glazed base adds complexity to our manufacturing process, it has been engineered to provide additional benefits to our customers. Distributing the weight more evenly when the product is stacked can reduce the possibility of scratching the glaze surface and becoming a potential entry-point for bacteria.

## EDGE CHIP RESISTANCE

We understand the importance of edge chip resistance and engineer our products to perform in the busiest environments. Strengthening impact areas and adding a rolled edge improves edge chip resistance.



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ENVIRONMENTAL  
RESPONSIBILITY



INTERNATIONAL  
STANDARD  
IMPACT RESISTANCE OF  
CERAMIC TABLEWARE



BRITISH STANDARD  
EUROPEAN APPROVED  
LIMITS METAL RELEASE  
FROM CERAMIC

# FULLY GLAZED BASE



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A more even distribution of pressure when products are stacked helps to reduce the possibility of scratching the glaze surface and becoming a potential entry-point for bacteria.



CHURCHILL

CHURCHILL DINNER PLATE  
WITH A GLAZED BASE



The exposed biscuit foot applies a more concentrated pressure when products are stacked, which may result in scratching. The glaze surface then has the potential to become an entry-point for bacteria.



DINNER PLATE  
WITH AN UNGLAZED FOOT

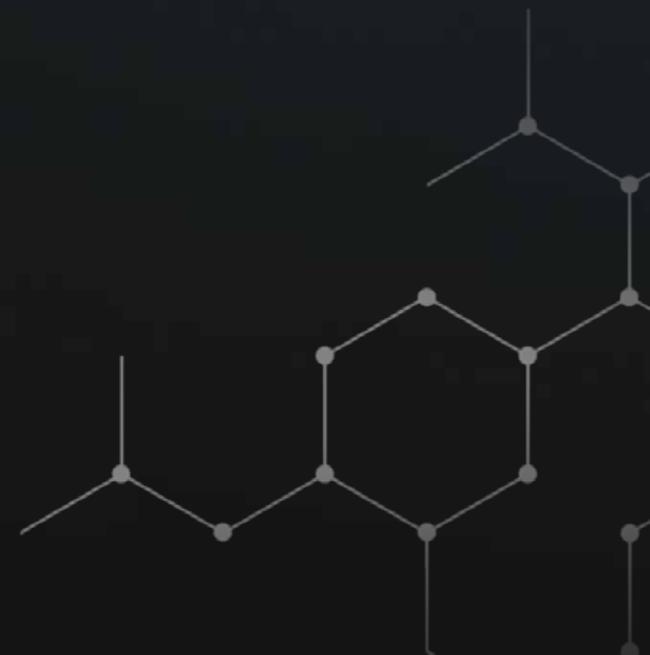


# GLAZING

Our glaze is hard wearing and designed specifically for the hospitality environment. The durability is a combination of the glaze recipe, the firing temperature and substrate.



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## DID YOU KNOW?

Our glaze surface is suitable for use with alkaline substances and tested to withstand 5000 industrial dishwasher cycles.

## HIGH PERFORMANCE GLAZE

Our products have been designed to support cleaning and sanitising processes, a crucial element to ensure food safety. A two step process, the cleaning process is carried out to physically remove bacteria and dirt from surfaces, followed by a sanitising process which is designed to kill bacteria to a safe level.

### CLEANING

- Churchill products have a hard wearing glaze, designed to withstand 5000 dishwasher cycles.
- The hardness of our glaze allows the product to be vigorously cleaned or scrubbed using tough non-metallic utensils.

### SANITISING

- The glaze surface is suitable for use with alkaline substances.
- The glaze can be exposed to UV light.
- Churchill products can be washed/sterilised using boiling or steaming processes\*

\*providing they are not subject to extreme cold temperatures immediately after.



EUROPEAN STANDARD  
CRAZING RESISTANCE OF  
CERAMIC ARTICLES



ECO GLAZE



BRITISH STANDARD  
MECHANICAL DISHWASHER RESISTANCE

## DID YOU KNOW?

Churchill glazes are uniquely formulated and applied to reduce the surface roughness of our ceramics, which lowers the available sites that bacteria are able to adhere to, and this in turn reduces the amount of bacteria that is able to grow on the surface.



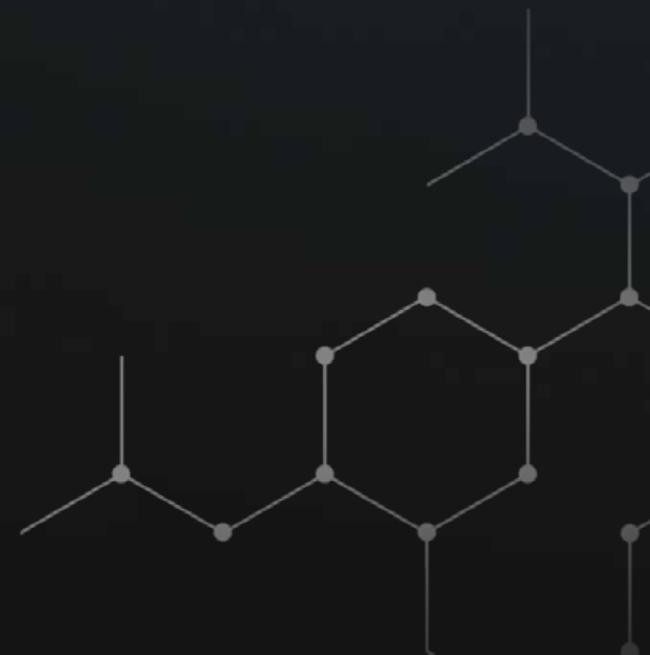


# QUALITY & CONFORMANCE

Churchill ceramics are continuously tested and quality checked, from the stage of raw materials, throughout the manufacturing process to the final fired piece.



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Churchill vitrified ceramics conform to the following standards:



#### VITRIFICATION AND FIRING:

- **BS EN 4034** British Standard European Approved Vitrified Hotelware
- **BS EN 1217:1998** British Standard European Approved Water Absorption



#### ENGINEERED SHAPE AND FORM:

- **BS EN 12980** British Standard European Approved Determination Of Impact Resistance
- **ASTM C368** International Standard Impact Resistance Of Ceramic Tableware



#### GLAZING:

- **EN 13258** European Standard Craze Resistance Of Ceramic Articles
- **BS 12875** British Standard European Approved Mechanical Dishwasher Resistance
- **BS EN 1183:1997** British Standard European Approved Thermal Shock and Thermal Shock Endurance



#### QUALITY AND CONFORMANCE

- **BS EN 15284** British Standard European Approved Resistance To Microwave Heating
- **ASTM C927-80** International Standard Lip And Rim Metal Release
- **BS EN 12980** British Standard European Approved Limits Metal Release From Ceramic





VITRIFICATION & FIRING



ENGINEERED SHAPE & FORM



GLAZING



QUALITY & CONFORMANCE

COMMITTED TO SUPPORTING  
FOOD SAFETY, OUR PRODUCTS  
ARE ENGINEERED TO PERFORM,  
TO PROTECT, AND TO LAST.

CLICK HERE TO FIND OUT  
MORE BY VIEWING OUR  
PERFORMANCE DELIVERED  
BROCHURE.



CHURCHILL



# CHURCHiLL<sup>®</sup>

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