

#### 10 REASONS WHY A CHURCHILL PLATE IS MORE THAN JUST A PLATE



THE PERFECT BLEND OF SCIENCE, EXPERTISE & ENGINEERING

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#### PERFORMANCE MATERIALS

Our unique clay recipe is essential in creating a strong and durable product for the hospitality industry. Our raw materials are selected to deliver the optimum balance of strength and whiteness.

#### TECHNICAL FACTS

Classifications of

#### Alumina

Adds Strength, Shock Absorbency and Whiteness

#### Ball Clay

Adds Elasticity and Flexibility

Raw Materials

#### China Clay

Adds Whiteness

#### Fillers & Fluxes

Occupies the Space Between Particles, Aiding Vitrification









#### DID YOU KNOW?

The sand (one of our fillers) that goes into our clay body is specially sourced from Scotland due to the pure white colour.

Rigourous tests are performed on our raw materials giving us a thorough understanding of the clay, this ensures predictability, consistency and performance.

#### ADDED ALUMINA

Alumina or Aluminium Oxide is the chemical compound of aluminium and oxygen with the chemical formula AL2O3. Alumina adds superior strength and whiteness and has shock absorbent qualities that combined with other components improves the products performance in use.

#### ALUMINA STRENGTH

The Alumina that goes into our clay body to add strength and shock absorbency comes from Bauxite Rock, the mineral used to make aluminium.

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#### 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.









#### DID YOU KNOW?

# 100% of dry waste clay is recovered and recycled



#### INNOVATION & ROBOTS

Innovation in machinery and robotics gives us the capability to create innovative shapes and large pieces.

#### CONSISTENCY

The technology used to form our products ensures consistency in size and weight allowing pieces to be stacked back of house using less space and reducing breakages.

#### FINISHING

Edges are sponged to create a round, smooth finish which is less vulnerable to chipping.



EDGE CHIP RESISTANCE
BRITISH STANDARD
EI BRODEAN APPROVED

#### TECHNICAL FACTS

#### Less than 10cm

The average height of key flatware shapes such as Profile and Evolve when 12 are stacked.

#### VITRIFICATION & FIRING



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, which also means that bacteria has less opportunity to penetrate into the ceramic and grow.

# CONTROLLED ENVIRONMENT Controlling the oxygen levels in our kilns, ensures a consistent colour and glaze surface.

#### DID YOU KNOW?

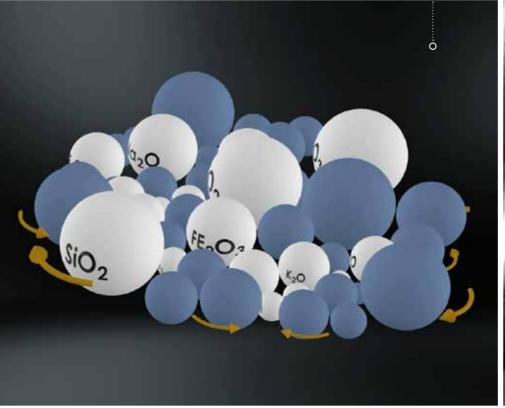
As part of our sustainability journey, we're trialling alternative fuel sources and as part of the British Ceramics Confederation we are collaborating towards netzero by 2050.



#### 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.







#### HIGH STRENGTH FIRING

Combining a firing temperature of upto 1200°C with a unique recipe of performance materials ensures vitrification.

#### VITRIFICATION

Breakages in ceramics are generally related to porosity, or how much water a piece can absorb. Water absorption weakens the chemical structure affecting its durability over time. Through the process of vitrification, the particle structure of our ceramic body becomes strong, dense and watertight.

#### STRENGTH TESTING

On average, our UK made vitrified ceramic bodies can withstand the weight of 19500psi. This is the equivalent to the weight of an elephant.

#### TECHNICAL FACTS

10,000 The number of ti

The number of times we test vitrification a year.

8 | VITRIFICATION & FIRING

#### 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.







#### SPRAY GLAZING

Sprayed glaze creates a smoother and more consistent finish. Our glaze is hard wearing, resistant to metal marking and designed to withstand hospitality cleaning and sanitising processes, including industrial dishwasher cycles and alkaline sanitisers.

#### TECHNICAL FACTS

Tested to 5000

Dishwasher cycles

10x

The domestic standard for products used in the home





#### CONSISTENCY

We work in partnership with leading global glaze suppliers to ensure our glaze consistently performs.

#### DID YOU KNOW?

Our glazing system is carefully formulated to allow oversprayed glaze to be collected, go through a lengthy cleaning process and then be reused. minimising our impact on the environment.





CRAZING RESISTANCE OF CERAMIC ARTICLES

ECO GLAZE

#### THERMAL STABILITY

During the critical stages of firing we ensure that the glaze contracts at an optimum level with the clay body. This prevents failure in use called crazing. The relationship between the Glaze and the Body is determined using the coefficients of thermal expansion.

#### GLAZED BASE

Although glazing the base of our ceramics adds complexity, it increases functional benefits to the customer. Glazing the base requires 'pin-firing'. This is when the piece sits on a crank to ensure the glaze coats the full base. The crank leaves small marks behind called 'pin-holes' signifying that the piece has a glazed base. Our fully glazed base can reduce surface scratching when the product is stacked, limiting the potential to become an entrypoint for bacteria.

#### DURABLE DECORATION

At Churchill we innovate with colour without compromising on durability. Our decorating techniques plus the colour and glaze materials we select, create a vibrancy that lasts.



#### FOOD SAFETY

techniques.

DID YOU KNOW?

We bought our raw

materials supplier Furlong

to become more innovative,

reactive and experimental

when developing colour

Mills in 2019, allowing us

We develop colour innovation that creates the







FOOD SAFETY

FOOD SAFETY



FOOD SAFETY



look of studio ceramics but that remains safe for food and hospitality use. All our coloured tableware conforms to five standards for metal release and food safety.



ISO 6468



#### DEPTH OF COLOUR

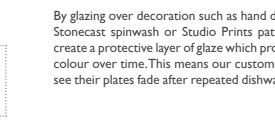
Our decorating techniques, particularly our extensive print capabilities allow us to achieve a brilliance and vibrancy of colour.





#### UNDERGLAZE DECORATION

By glazing over decoration such as hand decorated Stonecast spinwash or Studio Prints patterns, we create a protective layer of glaze which protects the colour over time. This means our customers won't see their plates fade after repeated dishwasher use.



TECHNICAL FACTS

12 | DURABLE DECORATION

TECHNICAL FACTS

#### 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.

#### DID YOU KNOW?

We are a member of the BCC (British Ceramic Confederation), one of the leading bodies in ceramics.



EDGE CHIP RESISTANCE



VITRIFIED HOTELWARE MECHANICAL DISHWASHER RESISTANCE



SECURE HANDLE ADHESION



**BS** 

FOOD SAFETY



CRAZING RESISTANCE OF





CERAMIC ARTICLES

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RESISTANCE TO MICROWAVE HEATING



FOOD SAFETY



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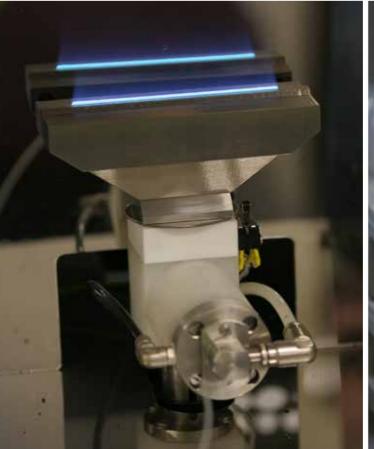


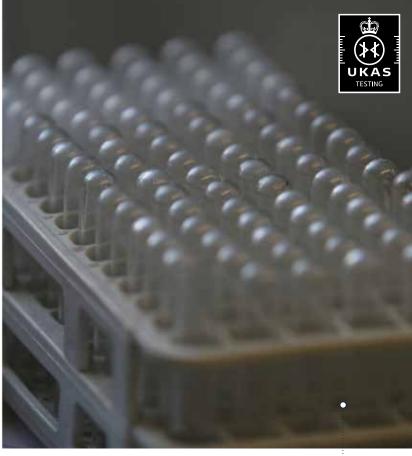
FOOD SAFETY



We test our portfolio to 13 British,

European and Global standards





#### IMPACT & 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.

#### DISHWASHER DURABILITY

We test dishwasher durability to British Hospitality Standard BS 12875. In service testing has demonstrated that under hospitality use, this is the equal to 5000 dishwasher cycles. The equivalent of putting the same plate in the dishwasher everyday for 13 years.

#### CONTINUOUS IMPROVEMENT

Our continuous improvement program ensures we aim to constantly improve the quality of our products.

#### IN HOUSE LABORATORY

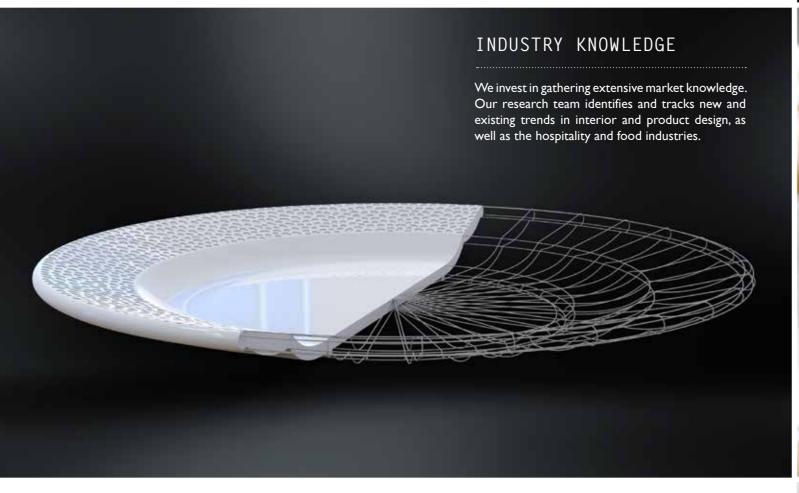
We test in our inhouse UKAS accredited lab:

- 0 1 Our Performance Materials China Clay, Alumina, Ball Clay, Fillers and Fluxes
- 0 02 Engineered Shape and Form Size, Shape and Stackability Size and Shape Consistency
- 03 Vitrification Water Absorption
- 04 Glazing Dishwasher, Glazing and Thermal Stability
- 0 05 Quality and Conformance Edge Chip Resistance

14 | QUALITY & CONFORMANCE QUALITY & CONFORMANCE | 15

#### DESIGN INNOVATION

Churchill are experts in ceramic design and at the forefront of innovation. Our entire product portfolio is designed in the UK by our experienced and talented design team. We work with chefs from around the world ensuring we understand the needs of our customers.







#### DID YOU KNOW?

Churchill have launched over 2000 new products since 2016 and have over 3800 products in the portfolio.

#### LEADING CAPABILITIES

Investment in the latest manufacturing technology, including the biggest installation of pressure cast machines in the UK and amongst the largest in Europe, allows us to combine original techniques with innovative shapes and larger pieces.



#### MACHINERY & PEOPLE

A perfect balance of machinery and people. We combine up to date manufacturing technologies with historical ceramic techniques in order to innovate with design.

#### TECHNICAL FACTS

3800

We have over 3800 items in our portfolio, including over 170 shapes and 75 colourways

#### RESEARCH AND DEVELOPMENT

We are continually developing materials that bring colour, texture and pattern to the tabletop without compromising on the durability that the hospitality industry demands.

#### SERVICE & STOCK

At Churchill we are dedicated to reliability, ensuring our product is in stock and delivered on time. We pride ourselves on our stock levels and ability to deliver on time, all around the world.







## GLOBAL DISTRIBUTION NETWORK

We supply to over 80 countries around the world and have a distribution network of 500 distributors globally.

#### DYNAMIC WAREHOUSES

Our 130,000sq ft warehouse stores over seven million products. We process 44,000 cartons of Churchill product weekly, that's an average of 72,000 pieces everyday.

We have warehouses located in:

- Stoke-on-Trent, UK
- O Rotterdam, Netherlands
- o Chicago, USA

#### DID YOU KNOW?

Our investment in the latest technology includes hand held scanners which allows the multi picking of orders ensuring we deliver products on time with accuracy.

#### TECHNICAL FACTS

130,000ft

Warehouse

99.4%

of orders delivered complete on time.

18 | SERVICE & STOCK | 19

#### HISTORY & HERITAGE

Established in 1795, Churchill have been manufacturing ceramics in Stoke on Trent, England for over 225 years.

#### DID YOU KNOW?

We have been manufacturing ceramics since 1795.
Over 100 years before the light bulb was invented.







#### TECHNICAL FACTS

## \_\_\_\_

#### 785 Employees

of the global Churchill team. Our employee with the longest service began working for Churchill in April 1966.

## CENTURIES OF MANUFACTURING KNOWLEDGE

Our expertise and capabilities in ceramics has been built and established over centuries, since Sampson Bridgwood first manufactured earthenware in 1795, Longton, Stoke on Trent. The company would later be renamed as Churchill.

## THE WORLD CAPITAL OF CERAMICS

For over 225 years our home, Stoke on Trent, has been the world capital of ceramics. The city is known globally as 'The Potteries'.

#### A BLEND OF SCIENCE AND SKILL

Our past has shaped our future, we have taken over 225 years of manufacturing knowledge and turned it into innovation. We have evolved and adapted to changes in the marketplace, introducing multiple manufacturing routes to produce colour and texture as well as investing in new technology to create differentiated shapes.

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#### SUSTAINABILITY

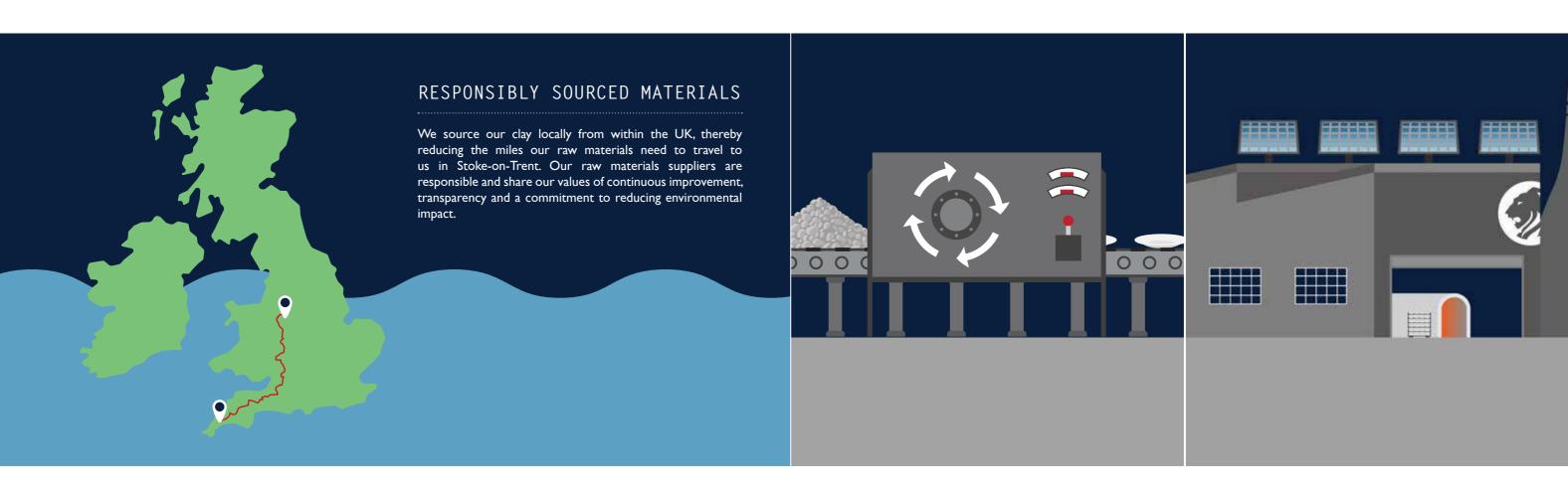
Churchill's commitment to a sustainable future has been an integral part of our company ethos for generations. Our past continues to shape our future; as we evolve, grow and innovate we're able to draw on a rich history of expertise to continuously reduce our impact on the planet.

#### DID YOU KNOW?

100% of our packaging is recyclable, so that we don't pass on any non-recyclables to our customers.

## ALTERNATIVE FUEL SOURCE TRIALS

As a business committed to a sustainable future we're actively trialling alternative fuel sources and are working alongside our colleagues in the British Ceramics Confederation to achieve a net zero industry.



#### TECHNICAL FACTS



4500

We have 4500 solar panels on site in Stoke-On-Trent

#### WASTE

We're continuing to develop our circular economy, and currently 100% of dry waste clay is recycled back through our manufacturing process. Additionally any fired samples that fail quality control are recycled into building materials.

#### ECO GLAZE

Our glaze system is specially formulated so that any oversprayed or spilled glaze can go through a lengthy cleaning process to be reused in our factory.

#### SOLAR ENERGY

Since 2019 we've invested in 4500 solar panels on the roof of our Stoke-On-Trent manufacturing base. In 2023 we replaced our gas-fired forklift trucks with an electric fleet, thereby making our UK warehouse net-zero.

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#### QUALITY TESTING & STANDARDS

We ensure our products perform by testing our UK made ceramics to 13 British, European and international quality standards, in our onsite UKAS accredited laboratory.



EDGE CHIP RESISTANCE



MECHANICAL DISHWASHER RESISTANCE



VITRIFIED HOTELWARE



SECURE HANDLE ADHESION



THERMAL SHOCK AND THERMAL SHOCK ENDURANCE

DURABLE AND VITRIFIED

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METAL MARKING



CRAZING RESISTANCE OF CERAMIC ARTICLES



RESISTANCE TO MICROWAVE HEATING



FOOD SAFETY



FOOD SAFETY



FOOD SAFETY



FOOD SAFETY



DURABLE AND VITRIFIED



SUPPORTING FOOD SAFETY



SUPERIOR GLAZE FINISH





DURABLE AND VITRIFIED



SECURE HANDLE ADHESION





THERMAL SHOCK RESISTANCE

















SUPERIOR GLAZE FINISH









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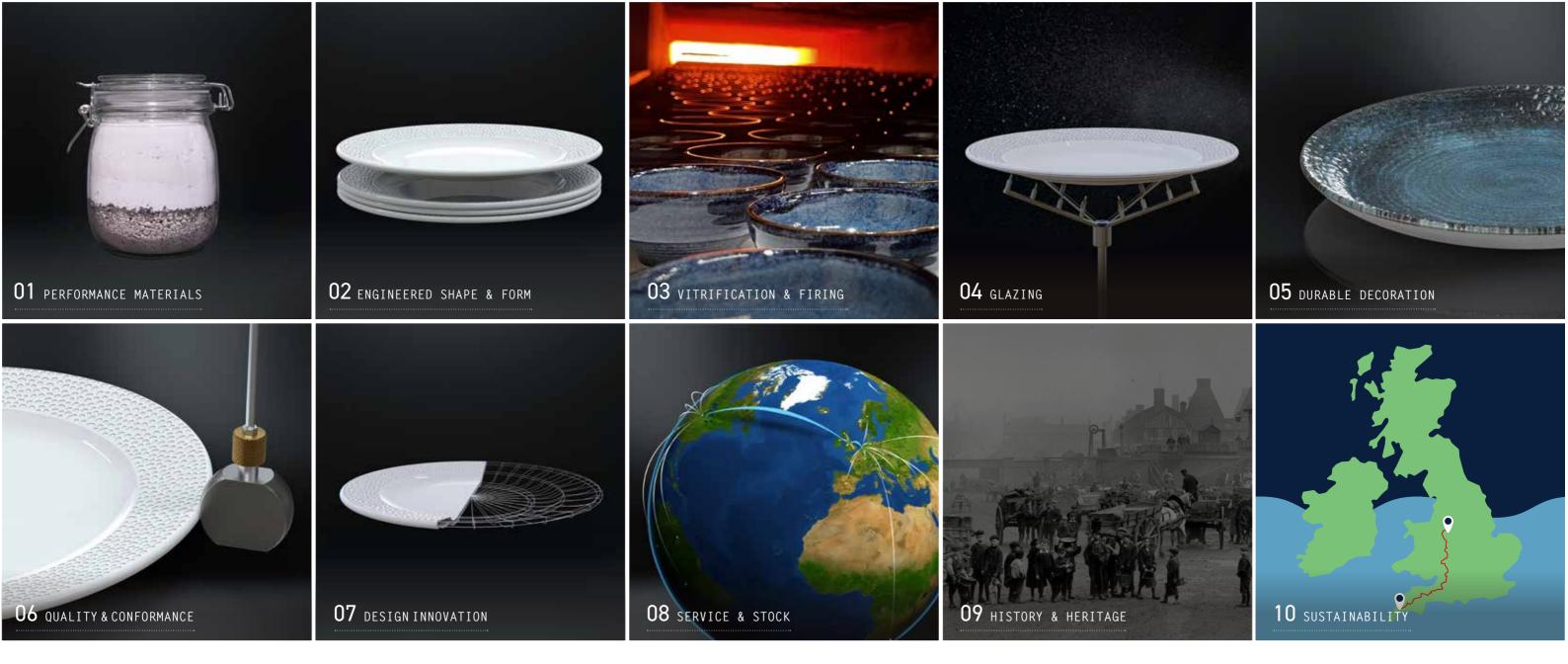
FOOD SAFETY







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## 10 REASONS WHY A CHURCHILL PLATE IS MORE THAN JUST A PLATE

We blend centuries of experience with the latest technology and design innovation to ensure our products work as hard as you do.

#### VISIT OUR SHOWROOMS

Head Office & Stoke Showroom No. I Marlbourough Way Tunstall Stoke-on-Trent ST6 5NZ

London Showroom Business Design Centre Suit 102 52 Upper Street Islington London NI OQH Madrid Showroom Calle Princesa No 2 7ta Planta Puertas 4 y 5 Madrid 28008 España Tel: 910 004 929

Berlin Showroom Rankestraße 8 10789 Berlin Germany

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#### **BERLIN SHOWROOM**

Rankestraße 8 10789 Berlin Germany

#### **MADRID SHOWROOM**

Calle Princesa No 2 7ta Planta Puertas 4 y 5 Madrid 28008 España Tel: 910 004 929 In the printing of this brochure, every effort has been made to ensure perfect reproduction of product colours, but due to printing limitations, they may not be an exact match to the actual product.