

## 1. Design

Belleek has a dedicated team of in-house designers who participate in varied Market Research and work closely with the sales team to introduce new ideas/concepts to the marketplace. Drawings are produced and after a careful selection process the most commercial designs make it to the modelling phase.



## 2. Modelling

A three-dimensional plaster or clay model is created from the design drawings. This is an accurate reproduction of the design showing every intricate detail and surface relief.



## 3 & 4. Block Case & Mould

Belleek Parian China (with the exception of basket and flower making) is slip cast. This is a technique where liquid clay body slip is poured into plaster moulds and allowed to form a layer (the cast) on the inside cavity of the mould. The master mould is a transfer reverse of the model. The first mould taken from the master case is called the 'Block Mould'. This is retained to make the next Case Mould whenever the first wears out. A second Master Block Mould is created and stored in Belleek's Master Mould Chamber. This will never be used, unless the quality of the first block mould deteriorates. Belleek's Master Mould Chamber contains Block Moulds dating as far back as the 1860's.



##### 5. Mould Making & Master Moulds

The Master Case Mould is used to make the working plaster of Paris moulds from which the cast ware is produced. Each mould will last for approximately forty casts after which a new working mould will replace it.



## 6. Slip

This is the material that becomes Belleek Parian China. It begins as a creamy coloured liquid formed by mixing China Clay and Feldspar. The slip mixture is prepared on a daily basis and after it is measured and checked for its consistency it is sent by pipe to the Casters bench.



## 7. Basket & Flower Making

Belleek's world famous Baskets and Flowers are passionately created by hand in Ireland. The production of such intricate and meticulous detail requires the use of a more pliable substance than that used on other Belleek product. In order to create such a flexible, yet strong material a mixture of slip and salvage (collected from the fettler's bench) is ground into a fine white powdery consistency. Gum Arabic is then added to the combination making the clay more manageable. The mixture is kneaded and hand beaten

on an oak block using two oak beaters to remove air. The clay is then pressed through a Dod box, which produces spaghetti like strands. The base of the basket is hand woven using a weave of two, three or four strands. The body of the basket is also created by hand in an inverted position as one by one the rods are joined with the plaited base. While the basket dries the feet, flowers and handles are crafted. All flowers, stems, buds, twigs and shamrocks are made entirely by hand. Should a flower require sixty petals, each part of the flower is crafted one piece at a time.



## 8. Casting

The moulds are filled to the top with slip. After the allotted time, the excess slip is poured off and the moulds are left to dry. As the piece dries it shrinks away from the mould and in time it can be gently separated. The slip has now become clay; this is called the 'Green Ware Stage'.



### 9. Fettling

Fettling is the skilled sharpening or delineation of the pattern. This intricate process also includes the elimination of seams, smoothing, rounding of edges and the fitting together of parts e.g. spout and handle to teapots, head to a body, etc. Finished pieces are left to dry completely before being sent to the kilns.



### 10. Biscuit Firing

Biscuit firing is perhaps the most risky phase, as this is the time when contraction occurs. Shrinkage can be as large as fifteen percent of the 'Green Wares' dimensions. Product is placed in the Kilns which are fired to 1,200 degrees centigrade. After this the cooling process must be very gradual. A sudden change in room temperature could shatter the ware. Therefore, the ware (now referred to as the biscuit) must

remain in the kiln, cooling overnight. The next morning it is transferred to the, 'Inspection and Cleaning Area.' Here each piece is examined under a strong light. Any piece that fails the inspection is destroyed, as anything less than perfect is not acceptable in Belleek.



#### 11. Dipping

Belleek glaze is made from a special recipe including borax and frit. The result is a distinctive pearl like surface on the item. Each piece is dipped once by hand and then dried for about two minutes under an infra-red heater



### 12. Gloss Firing

The dipped ware is transferred to the gloss (called Glost in Ireland) kiln room where glost firing blends the glaze to the Parian at a temperature of 1,000 degrees centigrade.



### 13. Stamping

At this stage the piece receives its third inspection; checking in particular for glaze faults. Perfect items are given the famous Belleek trademark stamp. This stamp indicates when the product was made. At present Belleek is using a new fourteenth (brown) mark similar to the previous mark except the inclusion of Belleek's Web address introduced in 2010.



#### 14. Painting

Every good piece is now sent to the painting and decorating department where it is painted to the standard required. Some pieces are decorated with transfer prints whilst others, such as figurines, baskets and jewellery might have mother of pearl decoration added.



#### 15. Enamel Firing



The penultimate step is the Enamel Kiln, where each piece receives its final firing at 760 degrees centigrade. Here the trademark is fused onto the bottom and the paint permanently fixed.



16. Product that has been perfect so far will receive its fourth and final inspection. Those accepted are packed in tissue paper and boxed along with any additional material such as romance cards or instructions. The finished item leaves Belleek to continue its journey to the various corners of the globe, to the homes of the many Belleek collectors and admirers worldwide.

