

**MATERIALS**



**STAINLESS STEEL**

Stainless steel, better known as Inox, is an iron alloy in which the resistance to corrosion is increased through the addition of chrome and nickel. The principle involves the protection of the outside surface by chromium oxide and nickel oxide molecules. These molecules are much bigger than the underlying iron atoms, which prevents the latter from combining with oxygen to form iron oxides - better known as rust. This passive layer protects the precious steel and is self-renewing. In order to obtain a chromium- and nickel oxide skin that is as pure and homogeneous as possible, and therefore optimally corrosion-resistant, the standard Royal Botania frames are etched and rinsed with demineralised water after which a passive layer is formed by natural oxidation. Chlorine is the biggest enemy of stainless steel and can cause a form of corrosion known as "pitting". Contamination by chlorides or rusting particles can penetrate the passive layer and cause corrosion in certain places. This is especially important when near the sea, because of course sea salt is sodium chloride. It is necessary to give the metal as smooth a surface as possible in order to give it an even greater resistance to corrosion. This is because if the surface is smooth, there is less chance for contamination to take hold on the metal surface, thus reducing possible corrosion.



**GLASS**

Royal Botania offers 4 varieties of coloured glass: clear, smoke, amber and opal. All handmade and highly suitable for outdoor use.



**POWDERCOATED ALUMINIUM**

Aluminium is a non-ferrous metal, which combines great mechanical rigidity with light weight; this makes it especially suitable for making outdoor lighting. If treated correctly it has a good resistance to corrosion. One of the treatments is powdercoating. After a chemical pre-treatment an epoxy powder is applied electrostatically and baked. The advantages are easy cleaning and endless colour variations. Powdercoating is a type of coating that is applied as a free flowing, dry powder. The coating is typically applied electrostatically and is then cured under heat to allow it to flow and form a "skin". Powdercoating provides excellent protection against corrosion.



**(ANTIQUE) BRASS**

Brass is an alloy of copper and zinc. The darker finish (antique brass) is achieved by dipping the brass in acid, which gives it an antique look.

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### TEAK

Because Royal Botania makes no concessions when it comes to quality, we only use carefully selected, fully grown teak, which is harvested in accordance with the strictest environmental standards. The wood comes from the Tectona Grandis, a tree that can grow to a height of 45m under the right conditions with a trunk diameter of up to 2.4 metres. The reason for its generally commended durability is the high levels of natural oils it contains. The resulting minimal moisture absorption prevents warping which gives it great stability. Moreover, the wood is extremely resistant to the influences of chemicals, as well as against attacks by vermin. Because of these qualities, combined with its exceptionally-beautiful colour and structure, teak is classed as the most premium wood on our precious planet.



### CORIAN®

Corian® is a 'solid surface' material made of mass-dyed composite material, they combine mass with homogeneity, yet without seams or joints. The basic ingredient of this product is aluminium trihydrate (ATH). Other components are acrylic resins, which are used as a binder. Aluminium hydroxide makes the material very sturdy and also more heat-resistant than other synthetic materials. 5 good reasons for choosing this material: 1. hard-wearing 2. non-porous 3. hygienic 4. impact-resistant 5. uV-resistant.



### ZINC

The zinc alloy used to manufacture Royal Botania lighting will look white in colour when first installed in the landscape. This is due to the acidification of the zinc oxide. At a later stage, this white deposit will wash off and will turn into a lovely darkgrey patina.



### PORCELAIN

Porcelain, refined and produced with modern and sophisticated techniques remains stable in all temperatures. It's extremely hard, wear-resistant and colorfast. This sustainable and lifelong porcelain is very suitable for indoor- and outdoor use.



### CAST IRON

Royal Botania uses a cast iron alloy with a small percentage of copper and chrome. This prevents any layer of oxidation created by contact with air and water from flaking off. The result is an even, rust-coloured patina that blends in perfectly with the natural surroundings.

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### GRANITE

Royal Botania uses solid granite. Granite is one of the hardest types of stone in the world. The unusual pattern and structure of the stone gives every bollard its own special look and character. simply clean with water and natural soap.



### POLYETHYLENE

PE, or Polyethylene, is a thermoplastic polymer consisting of long hydrocarbon chains which is very durable and ideal for outdoor use.



### PVC COVERED FIBREGLASS

The PVC covered fiber provides a solid core. This material requires a strong tensile and tear strengths, waterproofing, and heat and mildew resistance.



### 3D FABRIC

Made of synthetic fibers with a spacer layer of polyester microfilaments, absorbs little water and dries very fast in open air.



### ARABESCATO CARRARA

The translucent material highlights the natural beauty of marble.



### POLYOLEFIN

This is a synthetic fibre made from polyethylene. The advantage of this fibre is its strength, colour fastness. Also it is very resistant to staining and different weather conditions.

