

## What are Bronzino® containers made of?

All Bronzino® containers are made by hand from solid sheets of copper, zinc or brass and finished by hand using traditional recipes. Copper and zinc are pure metals. Brass is an alloy of copper and zinc.

They are formed by hand, without moulds, in a traditional coppersmith's workshop using traditional, artisan techniques such as folding, riveting, welding and soldering. Planter rims and ribs are reinforced with bands of stainless steel.

We dip each planter into a chemical concoction to accelerate the oxidation process and thereby create the finish. These concoctions can be centuries-old recipes handed down through families, and they vary from place to place. The precise colour of each finish can be affected by air humidity, so variations do occur.

All our containers are stamped with the Bronzino® logo on the base.

### Copper and brass finishes

Tin plated copper is the same finish traditionally used on cooking containers and is not waxed. These are best kept

indoors. Note: If placed outdoors in rainy environments, they will dull down to a pewter-like colour.

For our Bronzino® copper containers supplied with a bronze, grey or green finish and our Bronzino® brass containers (supplied only with a bronze finish), then they will have been given a protective waxing prior to delivery. This is a traditional sealant for copper placed outdoors. This initial protective layer seals the finish and prevents it from oxidising further. Note: For the finish to remain unchanged, coats of soft wax should be applied at regular intervals.

If the containers are supplied with no finish, they will eventually go down through browns, reaching green after a period of time. Please see the colour chart.

Unlike ferrous metals, which rust then decay, copper and brass build up a protective layer through oxidation. This is what gives copper and brass its special colour.

### Zinc finish

Our grey zinc finish is achieved by applying a traditional chemical concoction

by hand. This results in some colour variation, which gives the surface its special character. This finish softens into layers of warm grey, with more exposed areas displaying characteristic zinc oxide highlights.

Once outdoors it will begin to oxidise, which is its natural protective coating recognised as a white, chalky bloom. Zinc is relatively soft when compared with metals such as steel, therefore slight dents and scratches do occur during use.

Zinc does not rust, it offers excellent resistance against corrosion and builds up a natural protective layer through oxidation. Over time, the matte grey colour of our natural zinc containers usually deepens to a shade that resembles old lead.

Variations of colour can occur depending on local climatic and other conditions.

The characteristics of the three types of metal that we use should be appreciated as part of the character of the metal. If a pristine look is required for your containers, we would recommend that you consider alternative materials.

## How do I care for my Bronzino® container?

**Important note:** copper and brass always require regular waxing. All Bronzino® containers should be wrapped in polythene sheeting or well-protected before surrounding areas are pressure washed or cleaned using chemicals.

### Copper and brass

Copper and brass are natural antibacterial metals and self-healing, which make them wonderfully easy to care for!

When not protected by regular applications of wax, copper and brass will take on a more natural and varied finish. This will vary according to weather conditions and chosen site.

If not waxed, copper and brass will oxidise further, dim to a bronze/brown and then begin to collect blue or green around the edges. Please see the chart below as an example.

We recommend regular waxing, especially if the containers are in a hard water area, as it maintains the lustrous appearance of

the patina and provides better water runoff. We recommend the use of Renaissance Wax, a product specially developed to protect museum exhibits and other valuable artefacts. (See [picreator.co.uk](http://picreator.co.uk)). If this is unavailable, any good soft wax is sufficient.

### Zinc

There is no requirement to wax zinc as it oxidises of its own accord which forms a thin layer of stable zinc carbonate. One of zinc's greatest attributes is its longevity – it has an extremely long service life.

We always recommend that zinc containers are fitted with a butyl, GRP or similar liner to protect the interior surface from possible reaction with chemicals in soil. A landscape professional can advise on the best method prior to installation.

As zinc weathers and ages, it acquires a patina of great depth and beauty. Areas

that are exposed or regularly touched will brighten, more sheltered parts will darken, and the end result is a material that blends beautifully into its surroundings.

### General care and cleaning

To remove dust and cobwebs, simply give the container a brushing with a soft, household brush from time to time. Watermarks and every-day grime can be easily removed by wiping with a damp cloth, mild soap and warm water. Ensure that all soap traces have been removed, and leave to dry. For copper and brass only, apply a thin layer of fresh wax if required. Note: no actual cleaning or waxing is required for zinc.

Never use disinfectants, household cleaners, pressure washers and abrasives on containers. There is no need, and they will remove and/or damage the finish.



Oxidisation of unwaxed natural copper. Chart used with permission from the Copper Development Association.

### Scratches

As copper, brass and zinc are softer than other metals (such as stainless steel), they can scratch during every-day use. However, scratches almost always heal themselves if left alone. Within a short space of time, you will notice that scratches begin to darken and blend back into the surrounding finish.

### Spots and stains

Acidic or alkaline substances such as acid rain, gardening chemicals, pet urine and sandstone are likely to cause spots and stains if they come into contact with your container. If this occurs, immediately rinse the surface thoroughly with water, then follow the simple cleaning routine described above. For copper and brass, we also recommend regular applications of protective wax as a way of reducing the impact of acid or alkaline substances on the appearance of the containers.

### Lacquer treatment

For additional protection in high traffic areas and areas where acid cleaning agents or pressure washers are likely to be used, we can give your container a coat of matte cellulose lacquer at an extra cost. Once the container has been lacquered, we apply a top layer of wax which should be re-applied regularly to prevent the lacquer from breaking down. Note: Containers treated with lacquer will not age and deepen in colour in the same way as those treated with only wax.



Copper/Bronze appearance over time.

### Are Bronzino® containers watertight?

No. They are made using artisan techniques. We recommend that you follow instructions from a professional landscaper regarding the frequency of watering your plants. The build-up of water that results from over-watering can exert pressure which damages a container's joints. Over-watering or blocked drainage holes can also result in surface deterioration.

### Are there drainage holes?

As Bronzino® containers and vases are supplied to order, they come with or without drainage holes. As most plants grow poorly in waterlogged soil, we provide drainage holes as standard. We drill the base with 5 holes, and a solid brass plate 5mm thick is riveted underneath. This lifts the base off the ground.



If no drainage holes are required or if the containers are to be used indoors, you should take advice from a professional landscaper, who will be able to advise on the best type of liner to protect against unwanted water drainage. He or she will also be able to recommend suitable irrigation methods, and advised on related interior irrigation issues such as condensation.



Zinc appearance over time.

### Can my container be moved once it has been planted?

Bronzino® planters should only be planted once they have been placed in the correct location. You may find it easier to leave plants in their original polythene containers until you are happy with the location of your planters.

If it becomes necessary to move a large planter (over 750mm wide) once it has been planted up, you should take advice from a professional landscaper, who will be able to advise on the best way to avoid damage to the plant and planter.

Planters less than 750 mm wide should also be moved with caution. Any plants and soil should be carefully removed before the planter is moved, and can be reinstated once the planter is in its correct position.

### What is the environmental footprint and Bronzino® working environment?

Copper is a valuable metal with a high market cost, and has therefore always been saved and recycled as new sheet.

Our containers will always retain the intrinsic value of the metal and as they do not decay will still be here in the future.

The workshop is staffed by skilled craftsmen who are part of a team. They have spacious and well-ventilated workshops.

There is a dining room where management and craftsmen sit down together for lunch and tea breaks each day. We at Bronzino® have regular meetings in the workshop with the staff and working conditions are monitored.