



**CHANDLER**  
GLASS & PACKAGING

## DECORATED BOTTLES

Oct 2024

Chandler Glass & Packaging is able to provide fully decorated bottles using multi-coloured, screen-printed glazes, hot-stamp foil and Decal transfers. A bottle can be screen printed with and hot-stamp foil decoration. OTQ rosé is an example of this.

The artwork design determines which decoration technique should be chosen. It's possible to combine screen printing with hot-stamp foil elements. Hot-stamp foil is normally applied to single or opposing faces, while decal transfers can be wrapped or applied to a single face to emulate a standard label and position. Screen print can be achieved as a full-wrap decoration on the bottles' body.

At the same bottle manufacturing site, we can arrange to apply customised decorations using up to 5 screen print colours, 2 hot-stamp foils colours or tones, or decal transfer (for CMYK, photo-type images or fine-detail combinations of colours and foils).

Your chosen bottle from our range, can be decorated using the techniques described below in more detail. Screen-printed elements are glazes that are baked on to become part of the glass, making them scratch-resistant. Screen-printed art is the most resilient option. While foils are also baked on, they are more susceptible to hard contact damage that could occur during container transport (if unprotected), normal handling, bottling & labelling processes and carton transport.

The set-up cost for wine bottles selected from our range is minimal, but the MOQ for applying bottle decorations is usually 10 full pallets or 10,000 to 14,000 units (depending on the design and the delivery location, less is sometimes possible). The quantity requirement can be discussed on a case-by-case basis. All orders are to be in full pallet lots.



### SUMMARY OF 3 EMBELLISHMENT OPTIONS

Expanding on the three decoration techniques that are available to embellish bottles from Chandler's range, these options include:

1. Screen printing – the fastest, most automated application and by far the most cost-effective decoration technique with the greatest resilience.
2. Reflective hot-stamp foil decorations are striking. Our limited range of foil colours 'pop', however, often the less complex line artwork has greater shelf appeal. Foil decorations must be applied to the label straight zone and/or opposing label panel areas (not on the curve of the bottle's shoulder). The hot-stamp foil application is more costly than screen print and the foil decoration requires protection during all stages of the supply chain.
3. Decal-transfer application is the most time-consuming technique, as these are done by hand. This permits extremely detailed or elaborate decorations, making it the most versatile decoration technique. It can include a combination of CMYK (photo-like images), solid colours, graduated colours, reflective foils, and in some circumstances, it can be applied to part of large radius curves, such as the shoulder of a Burgundy or Flute bottle. It is more resilient than hot-foil stamp decorations, but still require protective plastic sleeves during transport.

### TOOLING & SAMPLING COSTS

- The sampling and one-off establishment tooling costs for screen-print is around \$400 and a hot-stamp foil decoration is approximately \$700 per design. This includes 6 to 10 samples delivered to you for inspection and final approval.

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- The Decal transfer, Option 3 above, tooling, and sampling costs are approximately \$1,640 - \$2,100 per design variant. This includes 6 to 10 samples delivered to you for inspection and final approval.

## CHANDLERS BOTTLE RANGE

Chandler's full bottle range that decorations can be applied to can be found here: <https://chandler.co/winebottles/>  
We also have access to many other cork mouth bottles that are not listed. Please enquire with an example of the bottle for which you require a close match.

## IMPORTANT -PLEASE READ THE RELEVANT SECTION(s) BELOW:

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### SCREEN PRINTED DECORATIONS



At a rate of up to 45,000 bottles per day, it is possible to apply, in one print pass, up to five registered 'spot' colours of ceramic-based glazes, closely colour-matched to either swatches or PMS references.

Because the glaze colours are applied wet to the glass surface and if multiple solid colours are being used, which are screen printed in the same machine pass, this technique does not allow different coloured design elements to over-lap / overprint by more than 0.2mm. Solid colours are applied side by side with 0.2mm trapping.

The colour range can include PMS metallic references, but these do not print with a bright, reflective quality. While the metal particles contained in the metallic glaze create a slightly textured look, their end appearance is more of a matte or anodized aspect. This means that the metallic glazes baked onto the glass do not have a glossy, 'sparkle' effect, which is observed when metallic inks are printed on paper or metal.

Most bottle types can have decorations printed as low as 16mm from the base (heel). For Burgundy & Flute bottle forms, the printed decorations can be applied to approximate the first 15mm of the shoulder curve above the label face. A slight

fuzziness of the line edges and a small amount of distortion can sometimes be observed when printing is applied to curved areas. For Bordeaux bottle forms, the shoulder radii are too tight/ too small, to allow for screen printing to be applied successfully.

In order to permanently bond the coloured glaze(s) to the glass surface, once the screen-printed decoration is applied to the glass surface, the bottles pass through a Lehr at 550~600°C. These decorations are very resilient and do not require protective sleeves.

Screen printed glaze decorations can be applied in conjunction with Hot-Stamp foil decorations, which are applied in a separate process, using semi-automatic equipment. For this additional step the hot-stamp foils would then require re-curing at 130°C.

For bottle orientation at the labelling station, where the bottler does not have photo-optic sensors fitted to the labeler, a **UV mark** of H6 x W3mm, can be applied to the upper neck or the body of the bottle with a 2mm tolerance of position. This UV mark is registered to the printed decoration and ensures accurate positioning of the applied labels ( $\pm 2$ mm). Bottles with UV marks applied higher on the neck or shoulder zones, require re-curing at 150°C. If the UV mark is positioned on the label face zone, it can be applied during the screen printing of the main decorations

## COLOUR DRIFT

Getting ceramic glaze colours to behave on dark glass colours in the 550°C Lehr is always a challenge for our factory. The coloured glazes are printed on the glass in a paste consistency, then kiln baked (Lehr), melting the glazes to become part of the glass surface (like glazing on ceramic pottery).

Depending on the colour, the atmosphere generated by the curing print inside the continuous belt fed Lehr, can slightly affect the colour tone, shifting it darker. Therefore, in using the PMS scale to reference a target colour, the acceptable tolerance for colour drift is 1 PMS colour.

## SURFACE PATTERN

We generally advise all decorations on bottle to be viewed at arms-length / 1m, not with an ultra-keen eye or magnifying glass as you may have when examining a detailed fine art. It is possible that the expectations of marketing personnel are higher than what is practical or possible for the application & kiln cured ceramic glazing on glass (from this factory). The surface of the glazed decoration can have a light surface pattern, caused by the colour being squeezed through the fine screen mesh onto the glass surface. This effect is more obvious when darker shades are used and print is on larger, solid areas. Higher gloss levels will assist in veiling the decoration's surface imprinted screen-pattern a little better on dark colours.

## HOT-STAMP FOIL DECORATIONS

This technique is used to apply highly reflective foils from a limited range of foil colours. Bottles can be decorated at a rate of up to 20,000 bottles per day. The actual foil decoration elements are achieved by first screen-printing the design using a special adhesive product and then applying the chosen foil colour to the adhesive area under heated element, transferring the foil from the cellophane backing to the glue-printed areas.

As decorations can be very shiny and detailed, they truly livening up the package. Up to three foil colours can be applied, but each would have a position tolerance of 1.0~1.5mm.

Because it is applied semi-automatically on a face of the bottle, a hot-stamp foil element(s) can be applied to a maximum 120 degrees of the bottles' body circumference. The bottle is not able to be rotated during the application of the decoration element(s). However, hot-foil decorations could be applied to opposing sides of the bottle's body.

Most bottle types can have the hot-stamp foil decoration positioned as low as 16mm up from the base (heel). Hot-stamp foil decorations cannot be applied to shoulder curves. The application area for this type of decoration must be on the flat, label straight. The decorations are lightly baked on at 130°C which gives them moderate resilience, compared to screen print.

While less expensive to set-up, the disadvantage to this product is that it is not as resilient as decal transfer labels. In order to protect the foil decorations during transport and bottling and depending on the position and size of the foil decoration(s), a protective plastic or paper sleeve is usually applied over the body of each bottle packed on the pallet.

Chandler advises these costly decorated bottles are given respect throughout the whole supply chain and bottle must be transported with sleeves. The sleeves should be left on the bottles during filling to avoid bottle to bottle hard contact or friction between bottle decorations and bottling line change-parts or the guide rails. Cartons produced using recycled kraft liners (that act as an abrasive surface) must be avoided or the protective sleeve must also be used to prevent the chance of frictive damage during transport of finished goods.

If the needs of the client and its bottler are to ship without or remove the sleeve during the bottle process because it is an impediment to the production, the manufacturer & Chandler will seek a waiver for claims relating to transport or handling damage to decorated elements.

## DECAL TRANSFER FOR CMYK AND FOIL DECORATIONS

This technique is used when artwork has colour gradients, shading, photographic effects and foils (combined) – or for art containing extremely fine detail. The decorations can include paint effects and photographic reproductions combined



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with detailed foil elements, if desired. All of these effects can be combined on a single label artwork that is applied as a transfer.

The decal labels are produced separately, in advance, and are transferred on the bottles manually at a rate of up to 9 to 10,000 bottles per day, depending on complexity.

The Decal element can be applied over 355° of the labelling surface (almost full wrap), as the bottle is able to be mechanically rotated for its whole circumference during the hand application of the decoration element(s).

Most bottle types can have the decoration as low as 16mm from the base. Depending on the final design, some decal transfers can be applied to the shoulder curves of most Burgundy and Riesling bottles (not to the tight radius of the Bordeaux bottle shoulders).

Once applied, bottles are passed through the curing Lehr at 300°C so that the decorations are baked on, becoming very resilient element. However, we recommend that bottles are transported with a protective sleeve. During bottling processes, the bottles do not generally require a protective sleeve not for transportation of finished goods, provided the cartons are not made with a low grade recycled inner-liner – which is very abrasive.

The disadvantage to this product is that the foils are a little less bright or reflective as those applied using hot-stamp techniques. The foils have more of a semi-gloss/satin effect.

Because the Decal labels are produced separately, they attract a high establishment cost and are double the unit cost to apply when compared to the cost of a combined decoration using both screen print and hot-stamp foil.

These labels require 3~4 weeks to produce from the date of confirmed order and receipt of the artwork.

## WARRANTY & WAIVER

*Chandler Glass & Packaging warrants that provided the client accepts that bottles will be shipped using individual protective sleeves, that wine bottles with decorations, including hot-stamp foil, or decal transfers, will be delivered to the specified delivery site, matching the approved sample and in excellent condition. Bottles decorated with screen-print only, do not need protective sleeve for shipment or subsequent handling.*

*However, while hot-stamp foil and Decal decorations are quite resilient, the decoration can be damaged if not treated with a good amount of care and respect between the bottling & packing processes and transport to the end customer.*

*After delivery to bottling site, the buyer is responsible for ensuring the decorated wares' appropriate handling, during depalletization, bottling, labelling and packing. It is essential that suitable packaging or sleeving is used to protect the bottles throughout the supply chain. This means the sleeves should remain on the bottles during filling.*

*Choosing not to follow this advice, is at your own risk. Chandler is not liable for any damage caused to the bottle's decoration post-delivery.*

## NEXT STEPS

**To start the process, please arrange your draft artwork and**  
Contact Chandler Glass & Packaging to discuss: 09 448 1288 or pip@chandler.co



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