## BristolCrownCo Your Digital Partner





Singles and up to 4 bridge units



Singles up to full arch bridgework

Singles and

**spectra**Max<sup>™</sup>

up to 3 bridge units



Singles up to full arch bridgework

## What the lab receives:

**A.** From uploaded files the restoration is fully milled to your designed shape and precoloured to your required shade with lighter cusps ready for final stain and glaze. The bite and contacts may need final adjustments.

**B.** From models, fully milled to either your wax-up or as designed at Bristol Crown. Precoloured to your required shade with lighter cusps ready for final stain and glaze. The bite and contacts may need final adjustments.

## What the lab needs to do:

**1.** Adjust the bite and contacts. Loose contacts will become firm contacts with the layer of glaze paste and any lost contacts or design errors can be retrieved with the addition of a small layer of porcelain without compromising the final restoration. Also check the marginal fit and adjust if necessary. Next sandblast all surfaces with 50 micron AlO<sub>2</sub> at around 4-5 bar. Finally clean off any remaining particles of AlO<sub>2</sub>.

2. Fix any detailed stains (such as fissure stain or light stress cracks etc). Next flow any colour enhancing stains onto the crown (maybe to create bluer cusps/whiter cusp tips/darker cervical stain/bring up the main body colour etc) Coloured stain can be mixed with glaze paste to create a 'blush' effect rather than streaky stain marks, or well recommended is the MiYO Esthetic System which can match Vita stains and more. **3.** Finally cover with a thin layer of glaze paste, such as Jensen InSync glaze paste, as necessary and fire according to your glaze instructions. However, since Zirconia is heat resistant, perhaps for around 4 minutes longer (vary as required).

## **Recommended Furnace Guidelines:**

When adding porcelain or doing a glaze cycle it is vitally important for all zirconia to have a very slow cool to prevent thermal stress which could result in a crack or risk of fracture. Especially important for bridgework!

For Single Units 45°C per minute up to temperature, 36°C per minute down (to slow cool in a closed furnace to 450°C)
For Bridge Units 45°C per minute up to temperature, 24°C per minute down (to slow cool in a closed furnace to 450°C)
Effectively for bridgework this results in needing a slow cool of about 20 minutes with the furnace shut for all cycles.
For large span bridges this is particularly important. These big zirconia frames are very sensitive to thermal shock and are likely fracture if these cycles are not followed.