

Ten VITA Suprinity PC single crowns – Quadrant rehabilitation in 2 sessions

Case Description

A 62-year-old female patient came into my dental office for a check-up and dental cleaning. She has been a patient in the practice for seven years and now complains that she hardly dares to smile. She was dissatisfied due to discoloration and wanted to improve her smile. In the first session, all the information and data for the CEREC Smile Design process was recorded: thorough anamnesis, conversation on the treatment goal, clinical examination. In addition to communication, documentation is an important success factor. An intraoral scan with the CEREC Primescan was taken to create a 3D model – the basis for a mock-up. This was then used to make the final decision for the planned treatment with the patient. A full arch scan was taken for preparations and from mock-up, adding to a Biocopy folder. A very important step was to set the model axis and insert axis for best grinding results. After the initial proposal, the CEREC Smile Design application was activated to finalize the design of the restoration using the patient's face and smile. We used a grid in the software to align the teeth to a suitable length. Suprinity is a zirconia-reinforced, high-strength glass-ceramic with high esthetics because of the integrated translucency, opalescence and fluorescence. In the Fast mode of the CEREC Primemill, it took an average of six minutes to grind a single restoration. After removing the block, the interproximal line angles as well as the form of the tooth were contoured, creating the ideal emergence, shape, texture, and form. Restorations were finished and polished, and showed passive fit in the printed model. Afterwards, all ten crowns were crystallized. In order to achieve a highly esthetic result, the crowns were individualized with stains. Restorations were fixed using adhesive (Clearfil Universal Bond Quick, Panavia SA Cement Universal, Kuraray Noritake).

Discussion

The patient wanted a beautiful smile. As teeth 15 to 25 are all visible, the decision was made to use a highly esthetic ceramic for all 10 of them. Due to the extensive consultation and the implementation with a mock-up, the restoration was carried out in two sessions with CEREC. The patient was very satisfied with the result.



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Before:

Patient dissatisfied with her smile due to tooth discoloration.



After:

Ten highly esthetic single crowns individualized with stains.

Clinical Images



Initial situation.



Initial impressions: CEREC Primescan was used for the creation of 3D-printed models, the key for ideal mock-ups. - CEREC Digital Study models and Bite registration (MIC or CR).



Emotional mock-up is transferred to patient's teeth; after patient approval, we were ready to start the proposed treatment.

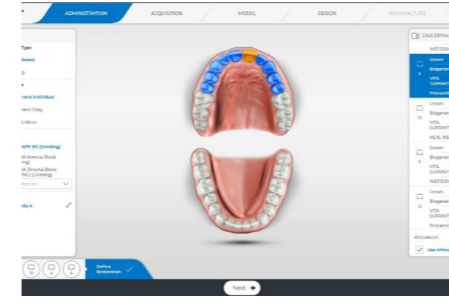


Restorations are finished, polished and passively fitted in the printed model. Next step is crystallization of the zirconia-reinforced, high-strength glass-ceramic. All 10 restorations will be placed in the oven.

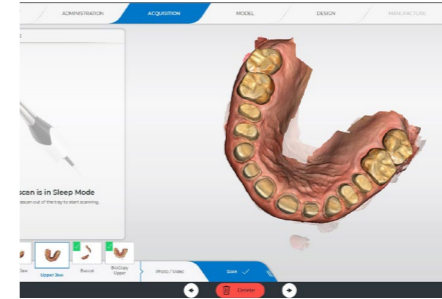


Final restoration.

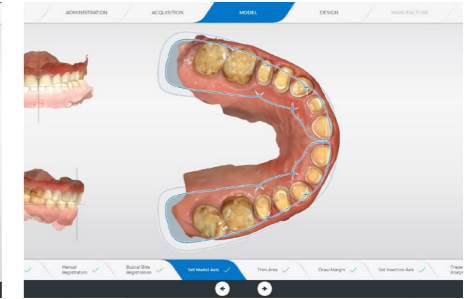
Workflow Images



Open CEREC Software and in the Administration phase we add restorations and the material to be used, which in this case was VITA Suprinity PC.



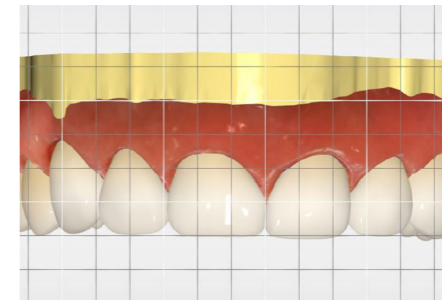
Full arch scan was taken of the preparations and from mock-up, adding a Biocopy folder.



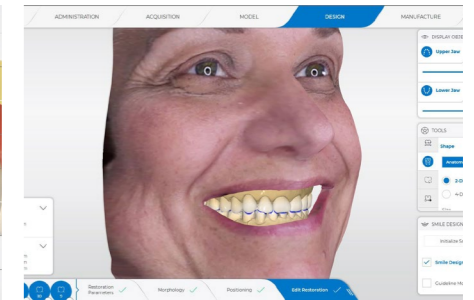
Setting the model axis and insertion axis are key for the best grinding of restorations in the manufacturing phase.



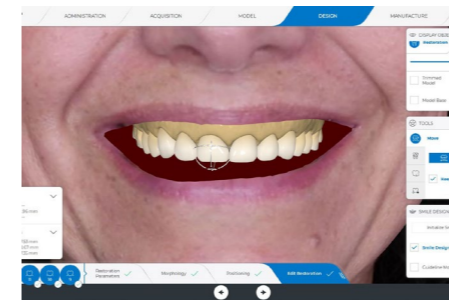
Upper and lower digital models articulated ready for the Design phase.



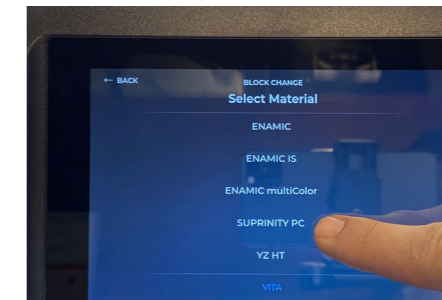
Restoration proposal, using grid to align teeth to length.



After the initial proposal, the CEREC Smile Design application was activated to finalize the design of the restoration using the patient's face and smile.



Design tools are used to perform minor touch-ups in the CEREC Smile Design application.



The new CEREC Primemill was used for the grinding of the restorations. Entering block information using the CEREC Primemill digital touchpad.



Vita Suprinity PC was selected for the restorations. Suprinity is a zirconia-reinforced, high-strength glass-ceramic with strength of 541 MPa. Precise results thanks to material blanks with high edge stability and most importantly, I like the high esthetics thanks to integrated translucency, opalescence and fluorescence.