

A Katana Zirconia STML single crown – Tooth 45, in 90 minutes

Case Description

A 21-year-old student came to my practice and wanted an esthetic solution for her tooth 45. She reported dissatisfaction with a root canal treatment done elsewhere and was very unhappy about the discoloration of the tooth now, which led to an inconsistent overall impression. For the patient, a temporary restoration was not an option, also for cost reasons. The x-rays, which had to be done because of the risk of a fracture or a trauma were unremarkable. In order to optimally cover the discoloration, it was necessary to use a slightly translucent material. We decided to use Katana Zirconia STML in shade A3 to perfectly meet the esthetic requirements. The crown was created with the classic CEREC workflow using CEREC Primescan for the digital impression, CEREC Software 5.1.1 for the design, and CEREC Primemill for milling the restoration. With the Fast mode the production time was only 8:35 minutes. The try-in of the sintered crown showed a very good fit. Before we permanently seated it with Calibra Cement, we individualized the restoration with stains and a glaze. Our goal was to fit the crown precisely into the overall tooth structure.

Discussion

Thanks to the newly achieved CEREC workflow time, the restoration of this premolar was very well suited for the chairside treatment with zirconia, which took only about 90 minutes in total. We were able to use full contour zirconia, a material that has good properties for this area of the tooth and, thanks to the wide range of shades available, also offers sufficient results for esthetic requirements. We deliberately decided against a multilayer material in order to achieve the desired low translucency. The patient was very happy with the result.



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Before:

Discolored tooth 45 as a consequence of a previous root canal treatment.



After:

Translucent zirconia crown with individualized finishing.

Clinical Images



Discolored root treated tooth.



Discolored root treated tooth.



First try in after sintering in CEREC SpeedFire.

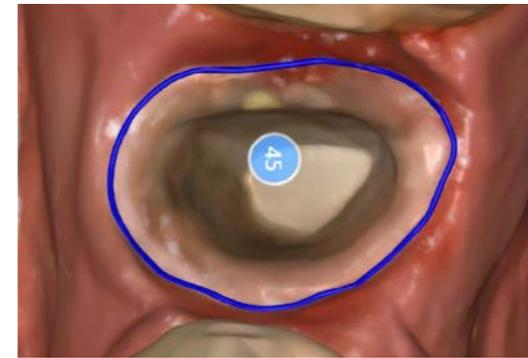


Final restoration with individualized finishing.



Postprocessing: stain and glaze by my dental assistant.

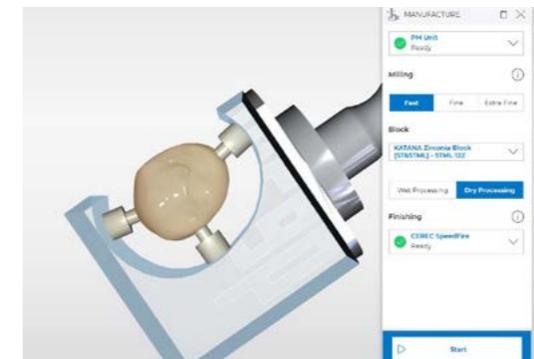
Workflow Images



Preparation with enough space for material.



Construction.



Milling mode: fast - to have more time for postprocessing.
Material: Katana Zirconia STML A3.



Milling time 8:35 min.