

Esthetic all-ceramic restoration of endodontically treated upper premolar: 1-step impression technique using 3M™ Impregum™ Super Quick Polyether Impression Material (Heavy Body/Light Body).

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About the Case:

45-year old female patient came to the office in need of a final restoration of the first upper premolar after initial endodontic treatment. The aim was to achieve an esthetic result and to protect the weakened cusps of the premolar, which were at high risk of fracturing. For efficiency reasons 3M™ Filtek™ One Bulk Fill Restorative was used to create a core build-up, 3M™ Impregum™ Super Quick Material was the material of choice for impression taking. This allowed for some extra time to be spent on the challenging preparation and capturing all important details.



Initial situation: Upper first premolar in need of final restoration after initial endodontic treatment.



Situation after root canal treatment, try-in of two 3M™ RelyX™ Fiber Post Glass Fiber Posts (size 0) and determination as well as marking of their final length.



Proximal box elevation with 3M™ Filtek™ One Bulk Fill Restorative and try-in of the extra-orally shortened 3M™ RelyX™ Fiber Posts.



Application of 3M™ RelyX™ Unicem Aplicap™ Self-Adhesive Resin Cement into the root canal using an elongation tip.



3M™ RelyX™ Fiber Posts after cementation and core build-up accomplished with 3M™ Filtek™ One Bulk Fill Restorative, shade A2.



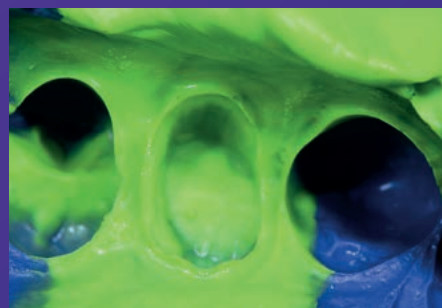
After final preparation, 3M™ Astringent Retraction Paste is inserted into the sulcus and applied around the preparation for retraction and moisture control before impression taking. After 2 minutes the paste was completely removed.



Clean and clearly visible preparation margin with pilot cord in the sulcus prior to impression taking.



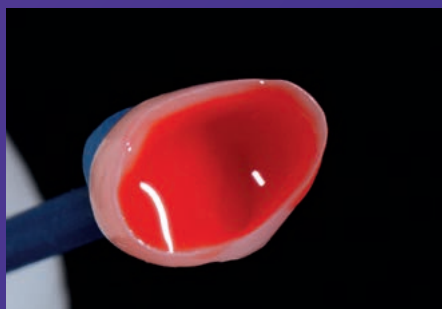
Syringing of 3M™ Impregum™ Super Quick Light Body Polyether Impression Material around the preparation for the 1-step impression technique.



Close-up view of final impression made with 3M™ Impregum™ Super Quick Polyether Impression Material (Heavy Body/Light Body).



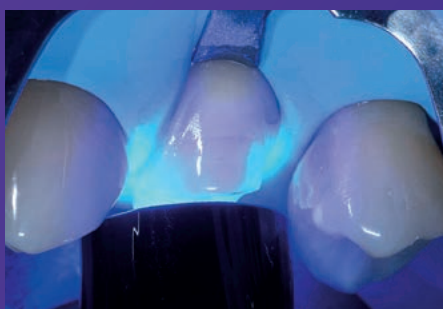
Selective etching of the enamel with 3M™ Scotchbond™ Universal Etchant for 15 seconds.



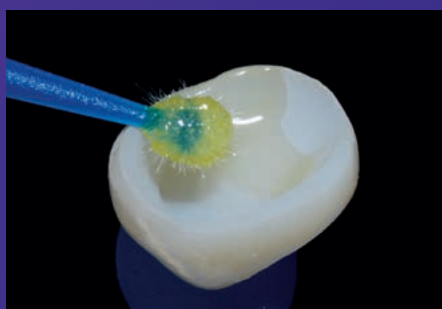
Etching of the all-ceramic restoration's intaglio surface (IPS e.max® CAD, Ivoclar Vivadent) with 5% hydrofluoric acid for 20 seconds.



Application of 3M™ Scotchbond™ Universal Adhesive to the prepared tooth surface.



Following air-drying for approx. 5 seconds, the universal adhesive is light cured for 10 seconds.



Application of 3M™ Scotchbond™ Universal Adhesive to the all-ceramic restoration for 20 seconds and air-drying for 5 seconds.



Final perfectly fitting and esthetic all-ceramic overlay restoration immediately after cementation using a composite restorative material.



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Dr. Chiodera has received an honorarium from 3M Oral Care.

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