Direct Mock-up Technique allows to perform class IV restorations in a single appointment avoiding the wax-up step.

Img. 1 - Initial situation: the patient came to our office with an uncomplicated crown fracture of his central
incisor 2.1. No pulp complication was found.

Img. 2 - Color shade was chosen before isolating the operative field with the rubber dam to avoid dehydration of the tooth.
Consider the extent of the missing portion, the tooth was directly reconstructed with composite without applying adhesive system. Composite was polymerized for 5 seconds and a silicone index was then made intra-orally. After that the restoration was easily removed. This technique allows to avoid the wax-up step and a second appointment.
Img. 4 - Mock-up silicone impression.
Img. 5 - Isolation of the operating field using rubber dam.
Removal of the old restoration revealed a previously prepared cavity with a very large bevel. Finishing was carried out with a 40 microns grained diamond bur.
Img. 7 - Incisal view of cavity preparation and finished bevel.
Img. 8 - Selective enamel etching with phosphoric acid 37% for 30 seconds. Protection of adjacent teeth was made with transparent matrices.
Img. 9 - Incisal view of the selective etching procedure.
Img. 10 - After rinsing for 30 seconds with water jet vacuum, the surfaces were dried with a gentle stream of air and an universal bonding agent was then applied with brushing motion technique for at least 20 seconds. Universal bonding was than dried for 10 seconds, first 5 seconds in a direct way to evaporate the solvent, than with moderate air until no movement of the adhesive on the tooth surface was visible.
Img. 11 - Polymerization for 30 seconds.
Img. 12 - Checking of the silicone index seating.
Img. 13 - A 0.5 mm layer of White Enamel composite WE was applied on the silicone guide to reproduce the palatal portion of the restoration.
Img. 14 - Palatal shell after silicone guide removal.
Img. 15 - Stratification of A2 Body composite A2B, reproducing the three-dimensional anatomy of the mamelons, leaving a small free space in the incisal ridge for opalescent and internal features. The bevel was completely covered with A2 Body composite A2B.
Img. 16 - The proximal wall was made by layering A1 Body composite A1B, using preformed matrices to recreate a correct contact point.
Img. 17 - Stratification of Transparent Enamel composite TE to recreate the incisal translucency between the mamelons.
Img. 18 - Stratification of the last layer of composite White Enamel composite WE using a natural bristle brush.
Img. 19 - Polymerization steps.
Img. 20 - Finishing of the restoration using multiblade bur mounted on a red ring contrangle.
Img. 21 - Surface texture is achieved with a 100 microns grained diamond bur.
Img. 22 - Polishing with cup, felt pads and diamond polishing paste.
Img. 23 - Comparison of the restoration immediately after rubber dam removal, with the sample chosen at the beginning of the operative session. The teeth are visibly dehydrated, hence assessment of color integration will have to wait for recall.
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