What you paint is what you get: an all-ceramic upgrade

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A revolutionary concept in the field of painting and microlayering of monolithic ceramics has been developed and produced by GC. It consists of three components: [1] Initial Lustre Pastes ONE (GC; Fig. 1) in the form of a paste to be used both for painting and for internal characterization in microlayering; [2] SQIN (GC), powders to complete the final contour in microlayering (the trend of the moment). [3] Initial Spectrum Stains (powder stains) can be used to increase individualization possibilities. All components can be used on zirconia as well as lithium disilicate.

The excellence, practicality and obtained aesthetic end-result of this new concept – which is called Initial IQ ONE SQIN – is illustrated with a clinical case.

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An 18-year-old patient had fractured three upper incisors in an accident (Fig. 2). Given the young age of the patient, she asked the dentist to have a natural smile again in a short time. After clinical evaluation, it was decided to restore the teeth following a minimally invasive, indirect adhesive approach. A crown was planned on tooth 11 and veneers on tooth 12 and 21.

Fig. 1: Initial Lustre Pastes ONE give natural fluorescence to monolithic restorations from zirconia and lithium disilicate.

Fig. 2: Preoperative situation.

A wax-up was made and copied using a clear silicone impression material (EXACLEAR, GC). After transfer to the mouth, a mock-up was made using an injectable composite (G-ænial Universal Flo, GC; Shade A2) that allowed to give a better idea of the final result and at the same time acted as the provisional restoration (Fig. 3)

Fig. 3: Mock-up.

The veneers and crown were made of lithium disilicate (Initial LiSi Press, GC) (Fig. 4) and were characterized following the Initial IQ ONE SQIN concept to obtain a highly aesthetic restoration with natural fluorescence, while optimizing the execution times.

Fig. 4: (a) Gypsum model; **(b)** Lithium disilicate (Initial LiSi Press) restorations.

First, the Lustre Pastes ONE are applied (Fig. 5a). These provide color deepness and serve as the connection firing. The fired LP ONE surface was softly sandblasted with 50 µm Al2O3 before the application of the SQIN ceramic (Fig. 5b).

Fig. 5: Initial IQ ONE SQIN concept **(a)** Initial Lustre Pastes ONE **(b)** SQIN.

Fig. 6: Verification of the anatomical shape and superficial texture.

Fig. 7: After glazing

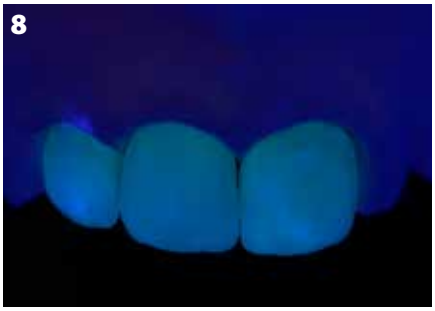

Fig. 8: Verification of the fluorescence on the model.

The SQIN gives the final texture to the restoration (Fig. 6). After the final firing, a self-glaze effect (Fig. 7) is easily obtained. In blacklight, it can be seen that the fluorescence of the restoration is increased (Fig. 8). Before the final cementation in the mouth with G-CEM Veneer (GC; Shade A2), the restorations were tried in with a glycerine-based paste (G-CEM Try-In Paste; Fig. 9). The cemented restorations gave excellent results, both from a functional and aesthetic point of view, giving back the beauty of the patient's young smile (Fig. 10). The patient was fully satisfied with the results obtained.

Fig. 9: Try-in with G-CEM Try-In Paste.

Fig. 10: Intraoral view after cementation.

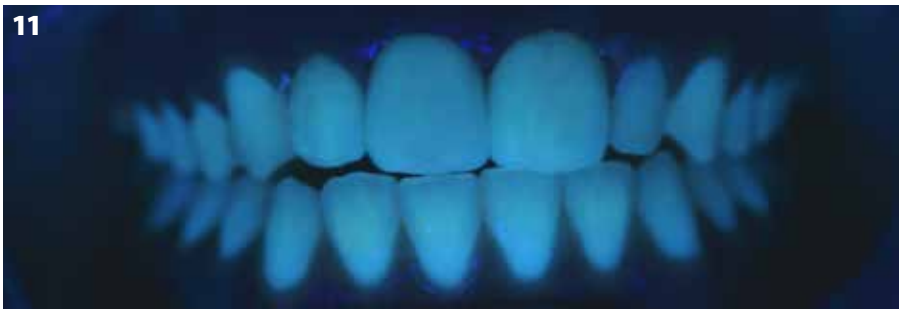

Fig. 11: Natural fluorescence of the smile. The fluorescence of the restorations is the same as that of the natural teeth.

The new Initial IQ ONE SQIN concept enables to maintain the expected quality standards both in terms of time and aesthetic result. In addition, it has been found that the production process could be optimized with these ceramics; the same material can be used on the new generation of metal- free substructures, such as zirconia and lithium disilicate for both painting of monolithics and micro-layering; meanwhile, it gives the restorations a fluorescence similar to that of natural teeth, making the restorations truly unnoticeable (Fig. 11).

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