

Restorative Clinical Cases

Author: Dr. Clarence Tam
Origin: Auckland / New Zealand
Date: June 2017
Brands: ceram.x[®] universal, Palodent[®] V3, SDR[®] flow+

Large MODL Class II restoration with ceram.x[®] universal, SDR[®] flow+, Palodent[®] V3

introduction / short description of the case:

A 43 year old female presented to my practice with a history of non-attendance. She was concerned about generalised sensitivity with her heavily-restored dentition, many teeth of which featured extensive composite restorations with recurrent caries detectable both clinically and radiographically. Certain teeth with extreme structural compromise were planned for bonded porcelain restorations, however, restorations like this large MOD were planned to be restored with direct composite due to financial constraints.



Dr. Clarence Tam
Auckland, New Zealand

Clarence is the Chairperson and Director of the New Zealand Academy of Cosmetic Dentistry. She is currently one of only two individuals in Australasia to hold Board-Certified Accredited Member Status with the American Academy of Cosmetic Dentistry. Clarence is a Key Opinion Lead for multinational dental companies Kuraray Noritake, J Morita Corp, Hu-Friedy, Henry Schein, Ivoclar Vivadent, DentsplySirona, Kerr, GC Australasia, SDI, Coltene, Triodent and is the only Voco Fellow in Australia and New Zealand. She holds Fellowship status with the International Academy for DentoFacial Esthetics. She sits on the Board of Smiles For the Pacific, an educational trust and charity for dental professional development across the South Pacific.

Large MODL Class II restoration with ceram.x[®] universal and Palodent V3



01
Intraoperative situation showing extent of large MODL Class II restoration. Resin-modified calcium silicate liner placed against area of deeper dentin with near-carious pulp exposure. Wedge guards will protect against accidental adjacent tooth grazing during preparation, and also double as the wedge for your Palodent[®] V3 sectional matrix assembly.



02
Palodent[®] V3 sectional matrix set-up showing re-creation of ideal line angle anatomy all in one solution.



03
Zoomed out view showing diametrically-opposing Palodent[®] V3 rings with Palodent[®] V3 EZ Coat matrices overlapping each other in a one-step solution driving the rebuilding of proximal and axial contours predictably.



04
Marginal ridge formation using A2 ceram.x[®] universal. Removal of sectional matrix assembly after this stage. Finish like a Class I restoration.



05
Buccal lobe placement using A2 ceram.x[®] universal. Fissure stain placed in interlobar position.



06
Final result after placement of lingual lobe and characterization. This result demonstrates the superb handling, sculpt-ability and chameleon effect of the universal, cloud-shaded ceram.x[®] universal composite featuring spherical fillers for ultimate control of placement. Note the precision of line angle and bucco-lingual embrasure formation with Palodent[®] V3.

Restorative Clinical Cases

Conclusion and references

Dentist comment / conclusion on the case:

Following the total etch bonding technique, Dentsply Sirona's SDR flow+® was placed against the base of the proximal box floor as liner in very thin layers and cured, in an effort to ensure hybridization and marginal integrity in this sensitive area before building the marginal ridge.

The body composite chosen, Dentsply Sirona's ceram.x® universal, features SphereTEC technology using spray granulation to produce spheres with a mean size of 15 µm out of primary submicron filler glass. These spheres minimize frictional forces when under stress. On the other side the irregularly shaped primary particles ensure high slump resistance, thus leading to excellent sculptability. The Cloud Shading Concept adopted by Dentsply Sirona's ceram.x® universal allows a single shade to umbrella a cluster of shades, by its distinct chameleon effect, permitting a minimalized armamentarium.

The Palodent® V3 matrix permitted efficient reconstruction and placement of initial layers in the extended proximal box situation, obviating the need to free-hand sculpt line angles prior to placement of the sectional matrix assembly.

All in all, the Class II Solution offered by Dentsply Sirona is elegant, efficient and precise; three features I strive to achieve in every restoration.



ceram.x® universal
Universal Nano-Ceramic Restorative



Palodent® V3
Sectional matrix system
EZ Coat Matrices and rings