Core Build-Up using Dentsply Sirona’s SDR® Plus

By Dentsply Sirona

The SDR® technology from Dentsply Sirona provides an unmatched combination of flowable consistency, excellent cavity adaptation, unique self-leveling and minimal shrinkage stress. With more than 50 million applications and superior performance in 5 and 6-year clinical studies, the SDR® Plus flowable material is the world’s most researched and clinically proven bulk-fill flowable technology. Dentists can bulk-fill up to 4mm deep to perform faster, easier Class I and II procedures without affecting the durability and longevity of the restoration. The handling properties of SDR® technology in SDR® Plus also make it ideal for several indications including core build-up. With three additional shades (A1, A2, and A3) simplifying aesthetic matching and enhanced wear resistance with a modified glass filler package that significantly increases durability, it is no surprise that SDR® Plus is clinically proven for indirect crown restorations.

Case Study

This case below shows a posterior tooth with an endodontic treatment followed by an indirect crown restoration. SDR® Plus is used as a core build-up material before the crown was seated. To prepare the tooth, the temporary cement was removed and the tooth surfaces were etched with phosphoric acid. The SDR® Plus first increment was light-cured for 20 sec, before a second layer of SDR® Plus was placed and light-cured. The periphery of the tooth was then prepared, preserving a layer of enamel at the preparation margin to ensure effective bonding of an all-ceramic crown. This was bonded with the Calibra® system. This protocol thus avoids iatrogenic mechanical strains on the tooth roots during core build-up. This treatment, involving a tooth/restoration monoblock with SDR® Plus composite and crown using only adhesive techniques, provides for outstanding biomechanical and aesthetic results.

Conclusion

This case involves the use of SDR® Plus composite as a core build-up material. The outstanding flowability of SDR® Plus composite allows complete filling of the pulp cavity, even in the smallest recesses; the composite was placed in two stages to ensure thorough polymerisation. The periphery of the tooth was then prepared, preserving a layer of enamel at the preparation margin to ensure effective bonding of an all-ceramic crown. This was bonded with the Calibra® system. This protocol thus avoids iatrogenic mechanical strains on the tooth roots during core build-up. This treatment, involving a tooth/restoration monoblock with SDR® Plus composite and crown using only adhesive techniques, provides for outstanding biomechanical and aesthetic results. For more information or to request a demo, please contact your local Dentsply Sirona representative.

Fig. 1: Tooth with a temporary restoration after endodontic treatment
Fig. 2: After removal of the temporary cement and etching with phosphoric acid.
Fig. 3: Application of the etch&rinse adhesive Prime&Bond Universal™
Fig. 4: First layer of SDR® Plus was placed at the cavity bottom. SDR® Plus self-levels within a few seconds and can be applied to 4mm.
Fig. 5: SDR® Plus first increment was light-cured for 20 sec, before a second layer of SDR® Plus was placed and light-cured.
Fig. 6: View of the tooth—with the SDR® Plus core prepared for crown seating.
Fig. 7: Impression taking with Aquasil® Ultra Putty soft and Aquasil® Ultra Light LV.
Fig. 8: The ceramic crown was etched with hydrofluoric acid.
Fig. 9: Calibra® Silane was applied and dried.
Fig. 10: After having etched tooth surfaces, Prime&Bond® universal was applied and dried.
Fig. 11: Before seating the crown, a homogeneous and thin film of Calibra® Automix was placed on the inner surfaces of the crown.
Fig. 12: The crown was light-cured from each side.
Fig. 13: Final result.
# Hands-On Training Courses

**10th Dental Facial Cosmetic Conference**

07-11 Nov 2018

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<td>Maxillary Sinus Floor Elevation Course</td>
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<td>08 Nov</td>
<td>Aesthetic Management of Tooth Wear The MI Way</td>
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<td>08 Nov</td>
<td>Everything Veneers - From Essential Know How to Techniques &amp; Tips for Cementation</td>
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**Target Group:** Dentists, Dental Team, Dental Students, Dental Industry

[www.cappmea.com/aesthetic/hands_on](http://www.cappmea.com/aesthetic/hands_on)
Investing in better dentistry

Tony Beale of Optident advises young dentists to use their limited equipment budgets wisely, suggesting to put personalised loupes at the top of any wish list.

By Young Dentist

Perhaps one of the most difficult decisions that students and newly qualified dentists have to make before and upon venturing into dental practice is to prioritise their buying requirements. As budgets will be extremely tight, they will obviously need to be very cautious, not wishing to invest in any dental items that are anything less than practical. It is sensible, therefore, to consider instrumentation that they can use literally every day, and for many variables procedures. Ideally, items should not be expendable, and should have a relatively long service life.

Loupes are a product that definitely fall into this category, and for dental students and the newly qualified practitioner, they can prove to be a very worthwhile investment.

Essential kit

Loupes can now be regarded as an essential piece of kit. They are invaluable in many ways, not only as an aid to enhance the user's visionary requirements, but to combat poor or incorrect working posture, thus reducing the chances of inducing acute back, neck and shoulder pain, and ensuing a more comfortable and efficient way of working.

However, loupes have never been regarded as cheap! But having said this, ‘cheap’ can often turn out to be costly! Although low-cost loupes can be purchased off the shelf, there really is no substitute for loupes that are custom made to suit the users exact requirements. After all, why would you buy a pair of ready-made spectacles in the hope that your eyesight will adjust to them when you can have a detailed and concise optical prescription for loupes to suit you? Personalised loupes will take into account and accommodate the correct magnification, lens, angle of working, inter-pupillary distance, style of frame and colour, together with the option of upgrading at a later date.

The Optident Vision Boutique offers all young dentists the opportunity to invest in loupes that will be tailored to suit the individual’s prescription, but at reasonable cost. The Univet range of loupes offers the best choice for young dentists with ‘cool’ Italian designer frames made from lightweight, but tough, carbon fibre materials at affordable prices. Lightweight, but tough, carbon fibre materials at affordable prices.

Fig 2: The Univet range of loupes offers the best choice for young dentists made from lightweight, but tough, carbon fibre materials at affordable prices.

Aid to enhance the user's visionary requirements.

Ivoclar Vivadent launches new product portal to round off its online services

By Ivoclar Vivadent AG

Ivoclar Vivadent has announced the go-live of a new portal. Under the heading of ‘Highlights’, the portal offers dental professionals and laboratory professionals the latest news about the company’s products.

The new online portal is now operational. It complements the well-established and successful Dentist and Dental Technician blogs, which focus on topics and issues concerning everyday work in the dental practice and the dental lab.

Available in five languages

Similarly to the existing blogs, the new product portal will be available in the following five languages: English, German, Italian, French and Spanish. The portal features two sections, which are in line with the company’s relevant target groups. One section is dedicated to dentists, the other to laboratory technicians. Both target groups will thus be supplied with relevant information to their profession.

Link: https://highlights.ivoclarvivadent.com