

Ivoclar Vivadent: revolution behind the smiles

Customers of Liechtenstein's biggest dental exporter share their user experience

By Danny Chan



Danny Chan

Every year, as new products enter the competitive dental materials market, usually via large trade shows like IDS in Cologne, they are greeted with a flurry of interest – but the hype sometimes lasts as long as the event itself. Few products are able to inspire confidence in the minds and hands of its users, by continuously building upon key attributes yet deliver consistent results over time. Among these, in each category, you may find one or two that has revolutionised the concept of dentistry – that eventually go on to become what is known as industry benchmarks. That dental manufacturer Ivoclar Vivadent can claim to several such innovations is testimony of its invaluable contribution to the profession.

An outstanding example of this is the IPS Empress System®, a leucite-reinforced glass-ceramic that forever changed the processing of ceramic materials. Since its release around 20 years ago, more than 33 million restorations have been fabricated with the material. From the stellar range comes IPS Empress Direct, the light-curing, nano-hybrid composite filling material for direct restorative procedures in the anterior and posterior regions.

Not surprisingly, IPS Empress Direct was picked

as a favourite by two dentists featured in this article, which purposes to identify the market perception and clinical benefits in routine application of the company's products. To find out how Ivoclar Vivadent products work from the user's perspective, we spoke to clinicians who place uncompromising demands on their dental materials to function like clockwork – every single day at the surgery. Both Dr Terry Wong and Dr David Dunn are customers of Ivoclar Vivadent, who routinely use a combination of the company's proprietary systems.

Terry is a general dentist whose passion lies in Aesthetic restorative dentistry. Working on both direct posterior restorations (composite resin) and indirect ceramic restorations (Cerec), Dr Wong relentlessly pursues the goal of mimicking natural tooth form and aesthetics in his restorations.

Dr David Dunn is the principal dentist of Macquarie Street Centre, a restricted practice to prosthodontics with special emphasis on implant and aesthetic reconstruction. Dr Dunn's specialty and fields of interest are restricted prosthodontics (aesthetic reconstructive dentistry), surgical and prosthetic implant reconstruction, and ceramic technologies in implant and conventional dentistry. He is a faculty member of the International gIDE Implant Master program and regularly lectures locally and internationally on aesthetic and implant dentistry. He is published in the International Journal of Prosthodontics and Journal of Implant Research.





Dr Terry Wong



Dr David Dunn

IPS Empress Direct: "Only Limited by Imagination"

Asked to comment on his favourite Ivoclar Vivadent products, David began with this assessment of IPS Empress Direct: "It is a beautiful material to handle clinically and has a wide assortment to challenge any aesthetic demand. Its application is only limited by the users' imagination and skills.

"Its superior physical properties including high polishability, excellent shade range, low shrinkage and low wear, making it a standout in the competitive composite resin marketplace.

Dr Wong concurs: "I enjoy using IPS Empress Direct for anterior resin bonding procedures owing to the wide choice of shades available and the natural properties of this composite."

Originally sceptical about switching to IPS Empress Direct – being more accustomed to using 4 Seasons, a



microhybrid resin composite also from Ivoclar Vivadent – Dr Wong has since appreciated the move.

"When composite resin systems are being superseded, I get a little nervous trying out the replacement composite – having to reacquaint with the properties of the new product, such as handling and shade matching.

"However, the new composite IPS Empress Direct has been a fantastic replacement in that the composite shades seem to match and blend in with natural tooth structure. There is a wide range of shade choices so it is not difficult to simulate natural teeth. It did not take long to become familiar with the composite shades. Having the new bluephase 20i LED curing light has also enabled me to "fast" cure my composite layers in direct veneer cases."

For direct applications, Dr Wong enjoys the amount of control he has in direct resin restorations – from start to finish.

"My outcome is predictable. Even if patients demand changes, it is a simple case of adjusting the restorations until they are happy with the outcome. It is more difficult to modify indirect ceramic restorations.

"I enjoy using multiple shade layering techniques with composite resin in order to simulate natural aesthetics. It can all be achieved in one visit at a lower fee to the patient, as compared to indirect restorations.

IPS e.max® : aesthetic meets function

Another product that has garnered a lot of positive feedback in recent years is the IPS e.max all-ceramic system. The IPS e.max system covers the spectrum of indications from thin veneers to 10-unit bridges, allowing dentists to choose their preferred framework material: lithium disilicate (LS2) or zirconium oxide (ZrO₂). The former demonstrates superior aesthetic properties suitable for restoring single teeth in the anterior and posterior region whereas the latter is the material of choice for large restorations (eg. posterior bridges exposed to high masticatory forces).

Supporting his assertion that Lithium Disilicate ceramics have revolutionised aesthetic and reconstructive dentistry, David enthuses:



"We now have a highly aesthetic, extremely strong and wear resistant material that can be bonded. Effectively this means we can be more conservative in tooth preparation and hence less invasive in our treatment to achieve our patient goals. Aesthetically this material offers many advantages over many other all-ceramic systems and has a broad range of applications extending from veneers through to inlays, onlays, crowns and bridges."

Unfortunately, such flexibility and features come at a cost, claims Dr Dunn: "The practitioner and dental ceramist must be acutely aware of the substrate colour of the preparation, the desired future tooth shading and the consequent thickness of preparation to achieve the desired result.

"Proper diagnostic workup and treatment planning is mandatory to achieve ideal results with these materials and be the least invasive in preparation. Multiple options exist for the pressable and CAD materials of varying translucencies and hues. Both clinician and ceramist need to be fully aware of options and the appropriate prescription in order to achieve superior results."

Due to increased incidences of parafunction, commonly seen as bruxism and clenching, Dr Dunn cautions about the higher susceptibility to failures with most all-ceramic and metal ceramic restorations.

"Bonded monolithic IPS e.max restorations are the strongest and IPS e.max Lithium Disilicate is the most

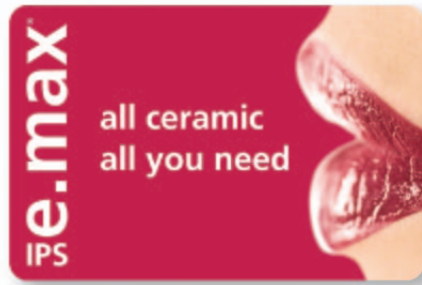
resistant material to these types of failures, including metal ceramic options. The material offers the ability to restore and protect the dentition without resorting to 'old' and invasive PFM type of full coverage restoration methodologies.

As more patients present with erosive loss of tooth structure in otherwise unrestored dentitions, Dr Dunn reaffirms the use of bonded, minimally invasive, all-ceramic aesthetic restorations for both anterior and posterior indications, saying:

"It has been a "godsend" for this patient population. We can now achieve aesthetic, functional restorations with excellent long-term prognosis that require minimal maintenance."

A Cerec user of about 10 years, Dr Wong had been using IPS Empress CAD blocks when they first became available. For more recent Cerec crown restorations, however, he has opted to use IPS e.max blocks for their strength properties. He has also chosen IPS e.max as the system for his laboratory fabricated indirect porcelain veneer cases.

"The introduction of IPS e.max for chairside Cerec procedures has offered me more choices for indirect restorations in posterior teeth. If I were to fabricate crowns with superior ceramic strength



characteristics then IPS e.max would be my first choice.

"If patients feel that a longer-term solution is preferred, I am able to offer IPS e.max veneers that can be fabricated with minimal tooth preparation."

Going an extra mile

Beyond its plethora of products, Ivoclar Vivadent is known in the industry for its excellent customer and technical support. Marketing its products in over 100 countries, the company has built a global network of sales and distribution centres that carry out region-specific marketing activities – mostly independent from the Liechtenstein headquarters. The same is true of its educational courses, which although finds centralised support from ICDE – its Continuing Education facility in Schaan – are conducted by the regional

offices via locally organised training programs, forums and symposiums.

Says Dr Dunn: "Ivoclar Vivadent is a unique and special "family-orientated" company with a – substantially realised – goal of positive long-term relationships with both its staff and clients; both at the laboratory and clinical interfaces.

"It is committed to both continuing education and product development and provides excellent educational support materials, seminars and training courses. Its products are well researched and substantiated with respected long-term studies. I cannot fault their support and interaction – most of all, their willingness to go that "extra mile"."

Dr Wong continues: "I have never had any difficulty getting queries or questions answered by the company. I have found the team at Ivoclar Vivadent very approachable and always within reach. They also seem to value my opinion of their products, as shown by the attention they give to all my feedback.

"I believe that the company has the right intention and direction in product training and continuing education. I believe their aim, through their courses, is to achieve a high excellence in dental training.' ◆

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For more information phone Kim Chew on 03 9707 9658 or 1300 486 2527.

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