Dentsply Sirona Prosthetics: Specialist for dental materials – now with pressable high-strength glass ceramics and "super translucent" zirconia

Dentsply Sirona Prosthetics is the specialist for dental materials within the Dentsply Sirona Group. This focus allows the business unit to continue its long-standing tradition. Leading precious metals provider, forerunner with zirconia, innovator of zirconia-reinforced lithium silicate (ZLS), provider of dental lines made of highly networked acrylate plastic IPN – Dentsply Sirona Prosthetics is constantly continuing its material research and development in all of its fields of expertise. It is now getting high marks for the recently introduced pressable Celtra Press and the supertranslucent zirconia Cercon xt.

Hanau/Salzburg, March 21, 2017. The activities of Dentsply Sirona Prosthetics have been a cornerstone of dental technology for decades. This business unit is still hugely popular with dental laboratories for its conventional cast alloys (e.g., Degulor), its fireable high-gold alloys (e.g., Degunorm, Degudent, BiOcclus), and its corresponding veneering ceramics, such as with the Kiss ceramic system. The GoldenGate system, in particular, progressed to a very reputable brand whose components (Degunorm + Duceragold Kiss) have already been used for all the prosthetic work of many patients – and which has been clinically proven for 25 years.

New materials, especially ceramics, were added around the turn of the millennium. These included the zirconia Cercon base – including CAM method for processing in dental laboratories, CAD method for the design of restorations on the monitor, and the corresponding veneering ceramics from the Kiss and love ceramic systems. Now, this category also includes the translucent zirconia Cercon ht, which has enhanced esthetic possibilities and is wear-friendly to the opposite tooth, so it is suitable even for monolithic use. It is available in all 16 classic VITA® colors as Cercon ht with True Color Technology.

New benchmark for color reliability and color rendering

The current innovation Cercon xt means increased translucency for the laboratory, namely around 19 percent more than with Cercon ht. In particular for monolithic restorations, this once again improves conditions for excellent esthetics. Cercon xt is also available in pre-shaded versions in the classic VITA® colors and white. With the True Color Technology, Cercon ht and Cercon xt therefore set a benchmark in terms of color reliability and color rendering. This results in significant added value for the laboratory. Thanks to the standard format (98 mm disks), the new material can be used in all common open CAD/CAM systems, and is also

About Dentsply Sirona:
Dentsply Sirona is the world’s largest manufacturer of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices under a strong portfolio of world class brands. As The Dental Solutions Company, Dentsply Sirona’s products provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dentistry. Dentsply Sirona’s global headquarters is located in York, Pennsylvania, and the international headquarters is based in Salzburg, Austria. The company’s shares are listed in the United States on NASDAQ under the symbol XRAY. Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.
available as a 105 mm disk for processing in the brain expert and brain xpert milling units.

While zirconia is indicated for prosthetic work from crowns to multiple unit bridges and implant suprastructures, primary crowns, custom one-part abutments and custom abutments, including crowns for titanium adhesive bases and to cover metal parts, Dentsply Sirona Prosthetics offers zirconia-reinforced lithium silicate (ZLS) Celtra Duo for the CAD/CAM workflow for "smaller" work such as onlays, veneers, and partial and full crowns. This high-strength glass ceramic stands out due to its translucency, opalescence, and distinctive chameleon effect.

**Setting the bar higher for glass ceramic strength**

The Celtra Press variant was recently added for press technology. The benefits of the special micro-structure of ZLS can thus now also be used in this processing method that is available in nearly every laboratory. The high edge stability, excellent polishability, chameleon effect with the associated matching of shades to the tooth substance provide a number of advantages in the manufacturing of high-quality esthetic restorations. All of this with a strength of more than 500 MPa.

The system components that have been specially matched with Celtra Press ensure rapid processing and outstanding results: The Celtra Press Investment material is partially responsible for the fact that only a minimal reaction layer is formed during pressing – which is removed by the sandblasting during divesting. The Celtra Ceram veneering ceramic is available to the laboratory for the esthetic refinement.

Together, the components are clearly more valuable than the total of their parts. An example of this: Thanks to its alignment with the classic VITA\(^1\) color system, Celtra Press achieves excellent color accuracy; the veneering ceramic Celtra Ceram is available to the laboratory for further customization. Cercon ht and Cercon xt with True Color Technology are matched to the same color system. The individual materials therefore support dentists and dental technicians with extensive full ceramic treatment systems – both with the addition of indications and with the production of harmonious esthetics.

**Team play: Proven dental lines and new dental polymer**

For total prostheses, combination prosthetics and the production of prosthetic implants, Dentsply Sirona Prosthetics offers denture teeth based on the highly networked acrylate plastic IPN, such as Genios. This dental line is impressive thanks to its youthful shape that is equally suitable for young and elderly patients. The multitude of fittings (anterior/posterior) and special tooth shapes leave nothing to be desired. The dental polymer Lucitone HIPA (high impact pour acrylic) has now become a new "team player". It features an extraordinarily high strength, color stability, and fitting accuracy.

Thanks to its extensive portfolio, Dentsply Sirona Prosthetics uniquely combines analog and digital worlds, fixed and removable dental
prostheses, high-gold alloys, metal ceramics (PFM), full ceramics, artificial teeth and dental polymers – in short, materials for the whole dental industry.

*Due to various certification and registration periods, not all products are immediately available in all countries.*

1VITA is a registered trademark of Vita Zahnfabrik H. Rauter GmbH & Co. KG, Bad Säckingen.

**Dentsply Sirona at the IDS 2017:**
Hall 11.2, Stand K-040
Fig. 1: Conventional metal-ceramic restoration with the GoldenGate system – still an outstanding option and clinically proven for 25 years.

Fig. 2: Cercon ht and Cercon xt with True Color Technology – highly translucent and extra translucent zirconia with added color reliability.

Fig. 3: The new dental polymer Lucitone HIPA (high impact pour acrylic) features extraordinarily high strength, color stability, and fitting accuracy.

Fig. 4: The new zirconia-reinforced lithium silicate Celtra Press that can be shaped in the press and the accompanying veneering ceramic Celtra Ceram and the investment material Celtra Press Investment are available as of now.