

## Media Release

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# Lithium disilicate meets zirconium oxide

## Ivoclar Vivadent expands its IPS e.max system to include the CAD-on technique

**The IPS e.max CAD-on technique allows dental laboratories to utilize lithium disilicate glass-ceramics (LS<sub>2</sub>) in the fabrication of high-strength, zirconium-based bridges.**

What makes the new CAD/CAM-based processing technique IPS e.max CAD-on so special is that it involves a combination of the materials lithium disilicate and zirconium oxide. The lithium disilicate glass-ceramic IPS e.max CAD stands for high strength and esthetics. It has already been very successfully used for the fabrication of single-tooth restorations such as monolithic crowns. IPS e.max ZirCAD zirconium oxide is used to create high-strength frameworks, primarily for bridge restorations. By means of the IPS e.max CAD-on technique, three- to four-unit posterior bridges can be produced that consist of esthetic, high-strength lithium disilicate superstructures on a zirconium oxide framework.

### The production procedure

The CAD-on technique involves the fabrication of two components: a zirconium oxide framework made of IPS e.max ZirCAD and a lithium disilicate superstructure made of IPS e.max CAD. Both parts are designed using the new intuitive inLab V3.80 software from Sirona and milled with the Sirona inLab MC-XL unit. The IPS e.max ZirCAD framework is then subjected to a quick sintering process in the Programat S1. Subsequently, a homogeneous all-ceramic bond between the two individually milled parts is established by means of an innovative fusion glass-ceramic that has been especially developed for the purpose. The fusion process takes place simultaneously with the crystallization of IPS e.max CAD.

### Treatment goals are reached more quickly and efficiently

IPS e.max CAD-on takes the fabrication of tooth- or implant-borne posterior bridges to the next level of efficiency and productivity. This new technique enables dental laboratories to create zirconium-based IPS e.max CAD restorations within a day and with little manual effort. And the results leave nothing to be desired in terms of strength, economy and esthetics.

The IPS e.max CAD-on technique can be used as an alternative to the layering or press-on technique. IPS e.max CAD blocks and accessories for the IPS e.max CAD-on technique will be available worldwide from autumn 2010 onwards.

For further information please contact:

Ivoclar Vivadent AG  
Bendererstr. 2  
9494 Schaan  
Principality of Liechtenstein  
Tel.: +423 235 35 35  
Fax.: +423 235 33 60  
E-Mail: [info@ivoclarvivadent.com](mailto:info@ivoclarvivadent.com)  
[www.ivoclarvivadent.com](http://www.ivoclarvivadent.com)

Caption:

*(IPS e.max CAD-on.jpg)*

Fig. 1: The IPS e.max CAD-on technique. In the front: IPS e.max CAD superstructure, IPS e.max ZirCAD framework and the completed IPS e.max CAD-on bridge restoration. In the centre: IPS e.max CAD Crystall./Connect fusion glass-ceramic. In the back: Ivomix vibrator unit.

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Media contact:

Lorenzo Rigliaco  
Public Relations Manager  
Ivoclar Vivadent AG  
Bendererstrasse 2  
9494 Schaan  
Principality of Liechtenstein  
Tel.: +423 235 36 98  
Fax: +423 235 36 33  
E-Mail: [lorenzo.rigliaco@ivoclarvivadent.com](mailto:lorenzo.rigliaco@ivoclarvivadent.com)