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## Fully crystallized CAD/CAM block made of lithium disilicate with optional characterization firing

# Single-visit, all-ceramic anterior tooth restorations in the dental practice

By Dr. Hendrik Zellerhoff, Germany

The patient's desire for "fast" and aesthetic restorations is increasing in everyday practice. Many patients are well informed and aware of the possibilities of digital dentistry or chairside treatment. There are various materials for the production of a single-visit restoration (short process time). The new, fully crystallized CAD/CAM block made of lithium disilicate, Initial LiSi Block has recently been added to our options. The ceramic has optimal physical and aesthetic properties without the need for an additional crystallization firing. In this article, the potential of the material is shown by means of an anterior tooth restoration.

The production of indirect restorations in the dental practice has established itself for single elements. Here, the digital workflow offers clear advantages over the conventional method. Often, the preferred option is a single-visit restoration when possible because of the resulting time savings for the patient. The potential is high.

Nevertheless, the choice of materials plays an important role. In order to meet the requirements for a single-visit treatment (short procedure time) without having to expect the patient to spend long times in the practice, materials that only need to be polished and not additionally crystallized are advantageous. A crystallization fire in the dental practice takes time. In addition, inaccuracies in peripheral

areas could influence the quality of the results.

In case crystallization firing is to be avoided, the choice of materials has so far been limited to hybrid ceramics and glass-ceramics. Alternatives were high-performance composites, so-called hybrid ceramics. New in this environment is now the first fully crystallized lithium disilicate ceramic Initial LiSi Block (GC). This CAD/CAM ceramic block is based on the proven HDM technology (High Density Micronization). The ultrafine crystals simplify the milling of the ceramic, so that Initial LiSi Block is milled in the fully crystallized stage. The crystallization firing step is eliminated and time is saved. But not only the time advantage speaks for this material. Due to the fact



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