

Realising optimal integration of function and aesthetics

An interview with Dr Marco Tudts, edelweiss dentistry

By Dental Tribune International



Austria-based company edelweiss dentistry showcased its innovative aesthetic solutions at this year's IDS. In this interview, Dr Marco Tudts, one of the company's key opinion leaders, explains the newest additions to the edelweiss dentistry product portfolio and the benefits of the company's unique hybrid glass material.

Dr Tudts, at this year's IDS, edelweiss dentistry presented the new edelweiss CAD/CAM BLOCK. Could you tell us more about this product?

The edelweiss CAD/CAM BLOCK is our newest product and a true breakthrough in CAD/CAM technology. The uniqueness of the edelweiss CAD/CAM BLOCKs lies in the patented manufacturing process that uses laser sintering and vitrification to produce a state-of-the-art hybrid glass block. As a result of this process, the material properties are greatly enhanced.

Fig. 1: Dr Marco Tudts is a senior lecturer at Ghent University in Belgium and maintains a private clinic with a focus on aesthetics and complex rehabilitation. **Fig. 2:** The new edelweiss i-BLOCK.





Fig. 3: The edelweiss DIRECT VENEERS and OCCLUSIONVD system. (All images: © edelweiss dentistry)

The block has the aesthetics of feldspathic or pure glass, the strength of particle-infiltrated ceramics and the resilience of hybrid composite blocks. Its versatile application, in combination with its time- and cost-saving procedures, makes the edelweiss CAD/CAM BLOCK a real asset for dental professionals who have their patients' best interests at heart.

The edelweiss CAD/CAM BLOCK has several advantages compared with other blocks currently on the market. Owing to the material's glass-like property, the final restoration only needs to be polished with a linen buff, which significantly speeds up finishing and polishing, and does not require additional firing and glazing equipment.

As part of the digital workflow, edelweiss dentistry offers an implant CAD/CAM block. What are its advantages?

The edelweiss i-BLOCK is unique because for the first time we have a hybrid glass CAD/CAM block that can be used to create customised directly screw-retained implant crowns. The new edelweiss i-BLOCK fits precisely on a titanium base (or similar attachments) so that the final restoration can be placed in the same appointment, reducing treatment sessions and improving the patient experience.

In addition, it has a unique shock-absorbing effect. Resin within the material provides resilience to the restoration to withstand any occlusal force. This is particularly important to avoid transmission of force to the periodontal tissue, the implant, the opposing tooth or the temporomandibular joint.

The unique properties of the i-BLOCK ensure high aesthetics and exceptional strength with long-lasting polish and wear resistance. The modulus of elasticity is similar

to that of dentine, making these blocks the best choice for immediate loading procedures on implants, and the i-BLOCK can easily be integrated into the practice's digital workflow.

What is unique about edelweiss dentistry's restorative systems?

As mentioned before, through our patented manufacturing process, we produce a unique hybrid glass material. Being in a solid glass phase, this material stands out from other materials on the market, as it has the optical properties of natural enamel, giving the restorations made from it a lifelike appearance.

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The physical and mechanical properties are also improved. Its strength is now similar to that of lithium disilicate ceramics. This benefits the clinician in that the material has properties similar to those of ceramics and does not require extensive tooth preparation.

Making use of its excellent adhesion to the tooth structure, minimal or non-preparation designs are used following biomimetic principles of replacing only lost tooth structure and preserving the healthy tooth structure. This is what edelweiss dentistry stands for: the optimal integration of function and aesthetics.