

# VITA VIONIC® DENT DISC multiColor

The milled tooth for long-lasting full and partial dentures



## VITA teeth made from multichromatic composite discs VIONIC DENT DISC multiColor

*Lukas Wichnalek and Arbnor Saraci, Zahntechnik Wichnalek – HIGHFIELD DESIGN, Augsburg, Germany*

When fabricating combination prosthetics, it was common practice to make basal and occlusal modifications to prefabricated teeth. Every tooth had to be handled individually and adapted to the framework structure. The next logical step was to fabricate the dental material on frameworks individually using a single CAD/CAM-supported mould. The VITA VIONIC DENT DISC multiColor comes from a company whose knowledge of prefabricated teeth has grown historically for 100 years and is part of the company's DNA and name:

VITA Zahnfabrik. The multichromatic disc made of the proven VITA MRP (microfiller reinforced polymer matrix) composite formulation now offers the well-known quality and esthetics of VITA premium teeth for combination prosthetics, which are created using the design software to perfectly fit the patient. In the following interview, Lukas Wichnalek and Arbnor Saraci (both of Zahntechnik Wichnalek – HIGHFIELD DESIGN, Augsburg, Germany) report on their successful use of the disc.

### Final result

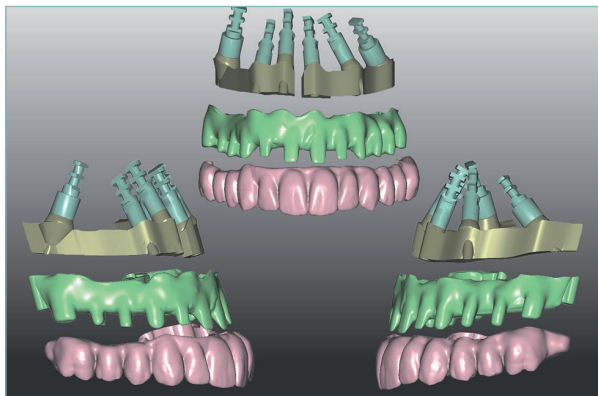


**What made you choose VITA VIONIC DENT DISC multiColor for the CAD/CAM-supported fabrication of combination prosthetics?**

**What kind of work do you use the material for?**

*Lukas Wichnalek:* VITA premium teeth have been proven clinically and in the laboratory. We use the VITAPAN EXCELL, the VITAPAN LINGOFORM and the VITA PHYSIODENS ourselves. When we learned that there was going to be a multichromatic disc made of the same composite material that would offer the same workability - abrasion resistance and esthetics for the digital workflow - we were immediately intrigued.

*Arbnor Saraci:* The VITA VIONIC DENT DISC multiColor allows us to create the tooth material individually and accurately in the CAD software using a single cast in the proven quality of the prefabricated teeth. We use the composite material for implant and partial prosthetics. The need to tediously grind out individual teeth to adapt them to framework structures is now a thing of the past in our laboratory.

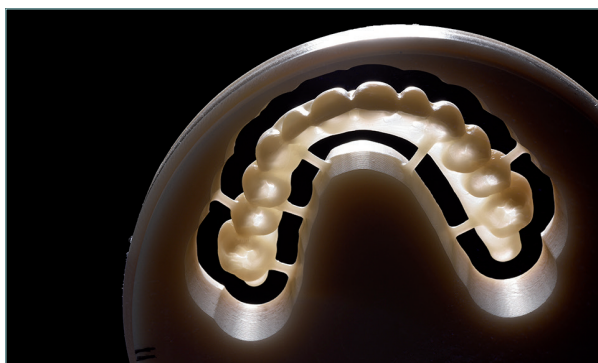


Construction with zirconia bridges, a secondary framework made of PEEK, teeth made of VITA VIONIC DENT DISC multiColor.

**What would some other alternatives for fabricating the tooth elements be, and what advantages does the VITA VIONIC DENT DISC multiColor offer in this context?**

*Lukas Wichnalek:* Prefabricated teeth can still be milled and adjusted. Composite layering on the secondary framework is also an option, but it is extremely time-consuming and requires experience. The injection technique with flowable composite is also possible, although the production of a prototype takes quite a long time to prepare in advance, which means that no shade gradient can be created.

*Arbnor Saraci:* In contrast, the shade gradient is already integrated into the VITA VIONIC DENT DISC multiColor, and I obtain a tooth material that is absolutely free of air bubbles after the CAD/CAM-supported fabrication. In terms of abrasion resistance and overall longevity, dental arches that are milled out in one piece are certainly more durable than manually layered or injected composite.



The tooth material can be ground out of the VITA VIONIC DENT DISC multiColor in wafer-thin layers.

## What is your process for preparing the VITA VIONIC DENT DISC multiColor? How did the finishing process go?

*Lukas Wichnalek:* The dental material comes out of the milling unit with high precision. As a result, the micromorphology that we select from our tooth database is already beautifully achieved. After removing the workpiece from the VITA VIONIC DENT DISC multiColor, I can immediately concentrate on the fine details, i.e., the micromorphology, texture and polish.



The implant-prosthetic components were a perfect fit.

*Arbnor Saraci:* The composite material of the VITA VIONIC DENT DISC multiColor is really easy to process and polish. We first use cross-cut milling cutters, and then fine diamond-coated grinding instruments. This is followed by a simple pre-polishing using the VITA ENAMIC Polishing Set Technical, and a short high-gloss polishing using VITA Polish Hybrid (which is matched to the material), as well as a brush with goat hair bristles and a leather buff.



The delicate dental arch made of VITA VIONIC DENT DISC multiColor can be precisely positioned on the secondary framework.



The dental arch attached to the secondary framework showed vivid translucency.



The base is then built up using a cold-curing polymer and sandblasted for individualization.

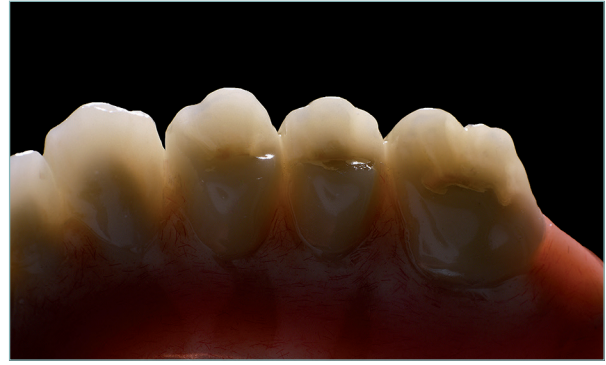
## What feedback have you received from practitioners regarding the esthetics of the VITA VIONIC DENT DISC multiColor?

*Lukas Wichnalek:* Of course, the shade matches the VITA shade standards, so you automatically buy the right shade with the blank. This is a huge advantage, especially when it comes to partial dentures. The shade accuracy with the VITA VM LC flow veneering composite is also a great advantage, in terms of quickly creating a basic shade harmony between telescopes and the tooth material from the VITA VIONIC DENT DISC multiColor.

*Arbnor Saraci:* And the real highlight is that the disc and its integrated shade gradient ensure that the tooth material has a natural appearance. The balanced shade gradient automatically creates a vibrant translucency in the thinner incisal edge. This is why the teeth that are individually fabricated from VITA VIONIC DENT DISC multiColor are so popular with our customers, and above all, the patients.



The finished implant-prosthetic restoration after mucogingival reproduction with the veneering composite VITA VM LC *flow*.



Macroscopic view of the posterior teeth with natural translucency and shade gradient.



Lateral view of the vibrant tooth material from the VITA VIONIC DENT DISC multiColor.



The VITA VIONIC DENT DISC multiColor offers the esthetics and functionality of VITA premium teeth.

**Additional information and case reports at:**  
**[www.vita-zahnfabrik.com/VIONIC](http://www.vita-zahnfabrik.com/VIONIC)**

