VITA ENAMIC® Product information





VITA ENAMIC BLANKS VITA ENAMIC STAINS KIT VITA ENAMIC POLISHING SET

The |En| formula for success: strength + elasticity = reliability²

VITA ENAMIC[®] The first CAD/CAM hybrid ceramic





Product description

VITA ENAMIC is the first hybrid dental ceramic in the world with a dual-network structure. In this dental material, the dominant ceramic network is reinforced by a polymer network, with both networks fully integrated with one another. VITA ENAMIC is a dental hybrid material that combines the positive characteristics of a ceramic and a composite.

In addition to a high degree of elasticity, this innovative hybrid ceramic guarantees particularly high load capacity after adhesive bonding. As a result, this material is perfectly suited for posterior crown restorations and also enables the reduction of wall thicknesses for minimally invasive restorations.

The superior reliability of VITA ENAMIC, as well as its precision, edge stability and corresponding milling accuracy, are also excellent features. Finally, this tooth-colored hybrid material offers material properties that are almost identical to those of natural teeth, ensuring a natural play of colors, thanks to its excellent light conductivity.



Enormous load capacity:

After bonding to the remaining tooth substance, VITA ENAMIC exhibits enormous strength and guarantees ideal distribution of masticatory forces. The polymer network offers outstanding absorption of intraoral load.



Fig. 1: Any masticatory forces are distributed in the dual network of the hybrid ceramic in an optimal way.

Fig. 2: The polymer network provides an integrated buffer function.





Fig. 1: Vickers test of silicate ceramic: cracks propagate due to the brittleness of the material.

Fig. 2: Vickers test of VITA ENAMIC: the polymer network stops cracks and ensures higher reliability.

Excellent reliability:

VITA ENAMIC is a very reliable material, and, as a hybrid material, offers an integrated crack stop function thanks to its unique dual-network structure.



Restorations that preserve natural tooth structure:

In addition to greater load capacity, VITA ENAMIC also guarantees the necessary elasticity, enabling minimally invasive treatment so that healthy tooth substance can be retained by reducing the wall thickness.





Precise and accurate restorations:

After the milling process, the VITA ENAMIC hybrid ceramic exhibits excellent edge stability (especially for restorations with thinning margins), enables accurate reproduction of morphological details and ensures precision-fit final results.

Fig. 1: High edge stability for restorations with thinning margins is ensured.



Fast and efficient fabrication:

The excellent milling properties of VITA ENAMIC guarantee that restorations can be fabricated more quickly and with minimal wear and tear on milling equipment. Because the hybrid ceramic already features its final strength, it can be inserted immediately after milling.



Reliable bonding thanks to proven protocol

Based on a proven protocol, VITA ENAMIC can be safely bonded since conditioning is carried out in the same way as for feldspar ceramics. In addition, the hybrid ceramic allows for excellent micro-mechanical retention by means of hydrofluoric acid etching of the ceramic structure (86 wt %).



Tooth-like properties:

VITA ENAMIC features abrasion behavior similar to that of enamel and reduces antagonist abrasion considerably. At the same time, the modulus of elasticity of the hybrid ceramic can be compared with that of natural dentin - these properties enable perfect integration of VITA ENAMIC restorations into the remaining teeth.



Natural results that match the tooth shade:

VITA ENAMIC is a tooth-colored dental material that offers superb light conductivity. As a result, VITA ENAMIC restorations blend in perfectly with the remaining tooth substance, enabling a natural play of colors.

VITA ENAMIC[®] Variations, indications, geometries, shades

Complete overview



*) The ST type is only offered in the geometry EM-14; available at the beginning of 2018. **) The geometry IS-14 is available in T and the geometry IS-16 in HT.

Recommended indications (for each type/degree of translucency)

Degree of translucency		VITA ENAMIC		VITA ENAMIC multiColor	VITA ENAMIC IS		
	T* Translucent	HT High Translucent	ST Super Translucent	HT High Translucent	T Translucent	HT High Translucent	
Indication			1				
Inlay	_	0	•	0	_	-	
onlay	-	0	•	0	_	-	
Table top	-	•	0	-	-	-	
veneer	-	•	•	•	_	-	
Anterior crown	_	•	0	•	_	_	
Posterior crown	•*	•	-	•	_	_	
mesostructure	-	-	-	_	٠	_	
Abutment crown	_	-	-	_	0	•	

* Due to the comparatively high opacity, Translucent is recommended when metal structures or tooth discoloration need to be masked.

VITA ENAMIC[®] Variations, indications, geometries, shades

Geometries





EMC-14: 12 x 14 x 18 mm



EM-14: 12 x 14 x 18 mm



EM-10: 8 x 10 x 15 mm



IS-14: 18 x 14 x 12 (for mesostructures)



IS-16: 18 x 16 x 18 (for abutment crowns)

For each geometry with an integrated S or L interface

Ø 98.4/h 12 mm Ø 98.4/h 18 mm

Shades

Variations	Chromaticity -	VITA SYSTEM 3D-MASTER range of shades									
		0 M 1	1 M 1	1M2	2M1	2M2	2M3	3M1	3M2	3M3	4M2
VITA ENAMIC ST* (Super Translucent)	mono- chromatic										
VITA ENAMIC HT** (High Translucent)	mono- chromatic										
VITA ENAMIC T*** (Translucent)	mono- chromatic										
VITA ENAMIC multiColor**	multi- chromatic										

*) The variation EM-14 of Super Translucent (ST) will be available at the beginning of 2018. **) VITA ENAMIC multiColor EMC-14, IS-16 and DISCS available in 1M1-HT, 1M2-HT, 2M2-HT, 3M2-HT, 4M2-HT. ***) VITA ENAMIC IS-14 in 1M1-T, 1M2-T, 2M2-T, 3M2-T, 4M2-T and DISCS available in 1M2-T, 2M2-T and 3M2-T.

VITA ENAMIC[®] STAINS KIT



Simple to achieve a natural play of colors

The VITA ENAMIC Stains Kit includes six stains and accessories for the reproduction of natural shade nuances of restorations made of hybrid ceramic.

The stains are bonded to the restoration as part of a polymerization process. Surface sealing can be performed using the chemical glaze material VITA ENAMIC GLAZE, which increases the durability and brilliance of the shade in the oral environment.

Processing is based on a simple five-step principle: condition the surface, mix and apply the shades, carry out intermediate polymerization, apply chemical glaze material and perform final polymerization.



Benefits



Fast processing:

Simply apply the VITA ENAMIC stains to the restoration, polymerize and that's it! With this process, the shade of VITA ENAMIC restorations can be quickly characterized.

High level of individuality:

The variances and shade nuances of natural teeth can be individually reproduced with the six VITA ENAMIC stains.

Simple processing:

The shade intensity of the VITA ENAMIC stains can be perfectly controlled by the ratio of liquid to shade powder. As a result, selective and smooth application of the shades is possible.

VITA ENAMIC[®] Polishing Set (clinical / technical)



All instruments needed to achieve excellent results

The VITA ENAMIC sets of polishing instruments were developed for reliable, efficient and material-specific surface treatment of hybrid ceramic restorations in dental practices and laboratories.

The sets include various polishing instruments for pre- and high-gloss polishing. These instruments are suitable for careful and gentle polishing of occlusal surfaces, cusps, fissures and restoration contact points. The use of these polishing instruments results in surfaces with exceptional gloss.



Benefits





Excellent final results:

Excellent and plaque-resistant surfaces are produced with these instruments. Precise concentricity, matched grit sizes and the individual geometries of the instruments guarantee results with high precision.

Simple and safe handling:

The instruments guarantee superior material removal performance. Good handling and the ability to use without polishing paste enables simple and fast processing. Safe use of the clinical instruments is guaranteed since they can be sterilized.

Gentle and careful processing:

These instruments, which were developed especially for VITA ENAMIC, ensure gentle and careful reworking. As a result, the risk of possible formation of micro-cracks is reduced.

VITA ENAMIC® System components





VITA ENAMIC blanks

- Pack of 5 VITA ENAMIC hybrid ceramic blanks
- Pack of 1 VITA ENAMIC hybrid ceramic DISC



VITA ENAMIC Polishing Set clinical/technical

Two-stage polishing system with a total number of eight pre- and high-gloss polishers for the contra-angle or the handpiece.



VITA ENAMIC STAINS KIT

VITA VM LC flow

Includes six light-curing stains and accessories for the reproduction of natural shade nuances of VITA ENAMIC restorations.

Light-curing, low-viscous composite materials for individualizing restorations made





VITA ADIVA LUTING SOLUTIONS

of VITA ENAMIC, for example.

System for full-adhesive, self-adhesive and temporary luting of restorations to tooth substance.

VITA ENAMIC® System components

System compatibility: VITA ENAMIC – SYSTEM SOLUTIONS**

VITA offers VITA ENAMIC with specific holder systems for the CAD/CAM systems:

- CEREC/inLab (Sirona Dental GmbH)
- MyCrown Mill (FONA Dental s.r.o.)
- Ceramill Motion 2 (Amann Girrbach AG)
- KaVo ARCTICA/Everest (KaVo Dental GmbH)
- Planmill 40 (D4D Technologies LLC.)
- TS150 (Glidewell Laboratories)

VITA ENAMIC – UNIVERSAL SOLUTIONS**

VITA offers VITA ENAMIC with universal holder system for the CAD/CAM systems:

- CORiTEC line (imes-icore GmbH)
- Roland DWX line (Roland DG)
- CS 3000 (Carestream Inc.)
- Impression K-/S devices (vhf camfacture AG)
- DMG ULTRASONIC line (DMG Mori AG)
- Röders line (Röders GmbH)
- Zfx Inhouse5x (Zfx GmbH)
- MILLING UNIT M line (Zirkonzahn S.r.l.)
- Organical Desktop line (R+K CAD/CAM Technologie GmbH & Co. KG)

**) Note: The range of geometries/shades of VITA CAD/CAM materials available may vary for the individual CAD/CAM system partners or systems.

VITA ENAMIC® Assortments



VITA ENAMIC Starter Set clinical

- 10 packs of 5 VITA ENAMIC blanks in 5 shades and 2 translucency levels
- VITA ENAMIC Polishing Set clinical



VITA ENAMIC Starter Set technical

- 10 packs of 5 VITA ENAMIC blanks in 5 shades and 2 translucency levels
- VITA ENAMIC Polishing Set technical

VITA ENAMIC® Polishing Sets

Designation	Details	Content/pieces
	Two-stage polishing system with pre- and	6
Polishing Set clinical	high-gloss polishers for the contra-angle	
VITA ENAMIC®	Two-stage polishing system with pre- and	8
Polishing Set technical	high-gloss polishers for the handpiece	

VITA ENAMIC® STAINS KIT

Designation	Details
VITA ENAMIC [®] STAINS KIT	VITA ENAMIC STAINS 1-6, VITA ENAMIC STAINS LIQUID,
	VITA ENAMIC GLAZE, VITA ENAMIC CLEANER + accessories

Note:

The following dental and dental-technical polymerization units are recommended for intermediate and final polymerization: Bluephase C8 (Ivoclar Vivadent), Astralis 10 (Ivoclar Vivadent), Valo (Ultradent), Speed Labolight (Hager& Werken), Heraflash (Heraeus Kulzer) and Polylux PT (Dreve).

VITA ENAMIC®

Notes

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Notes

With the unique VITA SYSTEM 3D-MASTER, all natural tooth shades can be systematically determined and perfectly reproduced.



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On publication of these instructions for use, any previous versions become obsolete. The current version can be found under www.vita-zahnfabrik.com

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VITA

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