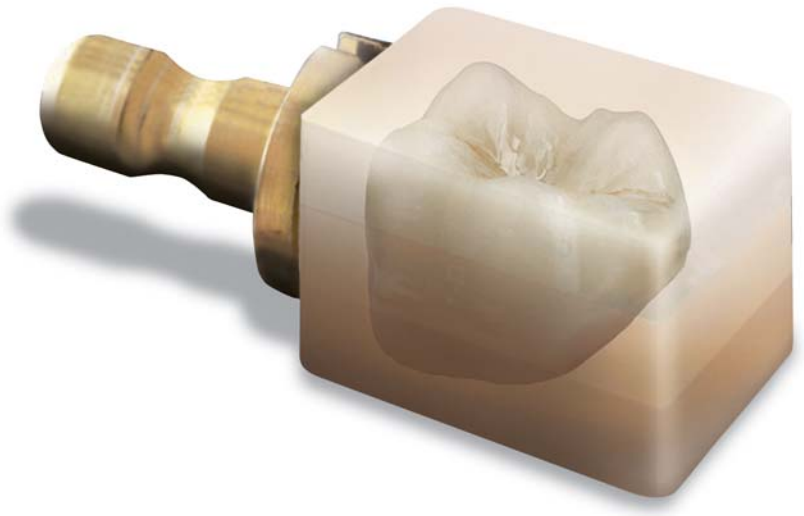
VITA
MACHINABLE
CERAMICS

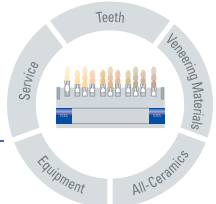
Mark II ESTHETIC LINE TriLuxe

VITABLOCS®

for CEREC®



Vita System



3D - Master

VITA

VITABLOCS® – Clinical Remarks*

Indications

VITABLOCS® for CEREC® are indicated for the CAD/CAM manufacturing of inlays, onlays, overlays, partial crowns, full crowns, endo-crowns on molars and veneers.

Adhesive Cementation

The above mentioned indications for ceramic restorations made of VITABLOCS apply exclusively for adhesive cementation with a recognized and correctly used functional enamel-dentine adhesive bonding system (Total Bonding).

Occlusion

The occlusion should be completely free of interferences, i.e. without any premature contacts in static and dynamic occlusion. Particularly the marginal contacts should be carefully adjusted. In the case of pronounced convex approximal surfaces of which the margin made of Mark II ceramic is not supported by the shoulder, no marginal contacts should be positioned. Occlusal contacts should not be positioned on the margins of restorations. Occlusally exposed dentine should, if possible, be integrated into the restoration.

Occlusal layer thickness of the ceramic

In the main fissure the following should be observed: while the occlusal margins taper off thinly, the minimum layer thickness of the ceramic below the deepest part of the fissure is 1.0 mm. Care should be taken during preparation to ensure that the cavity dimensions are sufficient. Establishing a functional dentine adhesion does away with the need for cavity lining and avoids reduction of the wall thickness of the ceramic at a given preparation depth. The layer thickness must be verified with the milling preview function of the CEREC 3 software. Reduction of the minimum layer thickness through manual processing of the fissure after seating must be avoided. In the case of normal function, restoration with cuspal coverage is recommended for thin cavity walls (< 2 mm) and cavity walls without dentine support in the area of centric cusps of vital teeth. The minimum wall thickness of the ceramic in the cuspal area is 2.0 mm. Use the following procedure for the cuspal coverage of devitalized teeth: the existing cusps of devitalized teeth should be shortened by at least 2 mm and restored with cuspal coverage.

Contraindications

Hyperfunctions: restorations made of VITABLOCS are contraindicated for patients diagnosed with excessive masticatory functions, in particular teeth grinders and clenchers. An absolute contraindication applies for the restoration of devitalized teeth with restorations made of VITABLOCS in the case of patients with hyperfunctions. Endo-crowns on premolars: endo-crowns on premolars are contraindicated on account of the small adhesive surface area and the small root cross sections.

Reworking

Restorations made of VITABLOCS fine-structure feldspar ceramics must on no account be processed using tungsten carbide instruments, since this damages the ceramic by causing microcracks. Only fine-grained diamond abrasives (40 µm) should be used for contouring, and finishing diamonds (8µm) for pre-polishing. Polishing is best carried out with Al_2O_3-coated flexible discs, polishing brushes and diamond polishing paste. Reworking/finishing should be carried out under low pressure and ample water cooling.

* In friendly collaboration with Prof. Dr. W. H. Mörmann and Dr. A. Bindl, Department of Tooth-Coloured and Computer-Aided Restorations of the University Dental Clinic of Zurich, Switzerland.

VITABLOCS® by VITA for the CEREC® System by Sirona

Sirona Dental Systems and VITA Zahnfabrik have been operating in close collaboration in the domain of CAD/CAM since 1986. As market leaders in their core areas of competence, the most experienced enterprises in the field have joined forces in order to develop the VITABLOCS and CEREC® in cooperation and for mutual benefit. By pooling their knowledge and resources in this successful manner, VITA and Sirona lead the way for the future in dentistry.

VITA and Sirona – the perfect match. Two strong partners you can count on for the future of all-ceramic technology.

CEREC®3 System

VITABLOCS® Mark II

VITABLOCS® ESTHETIC LINE

VITABLOCS® TriLuxe

The Sirona CEREC® CAD/CAM system offers you perfect processing of the VITABLOCS (Mark II, ESTHETIC LINE, TriLuxe) at the highest level of expertise. The CEREC method combines the adhesive technique with the fastest method possible to date of manufacturing direct chairside anterior and posterior all-ceramic inlays, onlays, partial crowns, veneers and crowns out of the VITABLOCS. The results are defect-oriented, biocompatible, metal-free tooth coloured restorations made of high-quality, long lasting ceramic. The decisive advantage of the VITABLOCS is that the restorations can be seated immediately after the milling procedure – there is no need for subsequent firing. Dentists value the good polishing characteristics of the VITABLOCS and the excellent, enamel-like wear characteristics of the VITABLOCS.

VITABLOCS for CEREC®

Material / Indikation	Fine-structure feldspar ceramic		
	VITABLOCS Mark II for CEREC	VITABLOCS ESTHETIC LINE for CEREC	VITABLOCS TriLuxe for CEREC
Inlays	●	○	○
Onlays	●	○	●
Veneers	●	●	●
Partial crowns	●	○	●
Anterior crowns	●	●	●
Posterior crowns	●	○	●

● recommended

○ possible

„I have been using the VITABLOCS Mark II with good results for years. They have considerably better polishing, etching and grinding properties and do not cause wear to natural tooth enamel."

Dr. Helmut Götte, Bensheim, Germany

VITABLOCS® Mark II

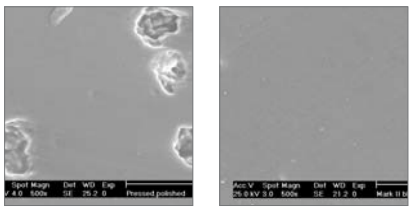
The all-round talent proven a million times over

The fine structure of the Mark II ceramic and the industrial sintering process are the reasons for the good polishing properties and the excellent, enamel-like abrasion characteristics of restorations made of VITABLOCS Mark II.

The advantages of the material and working properties of the feldspar ceramic correlate with the over 9 million restorations made of Mark II fine-structure feldspar ceramic blocks in clinical use today. They have a high degree of translucency, which guarantees excellent shade matching with the remaining natural tooth substance (clinical survival rate of 90% after 10 years).

A new development is the further aesthetic improvement by individualizing with the special VITA**VM**®**9** ESTHETIC KIT.

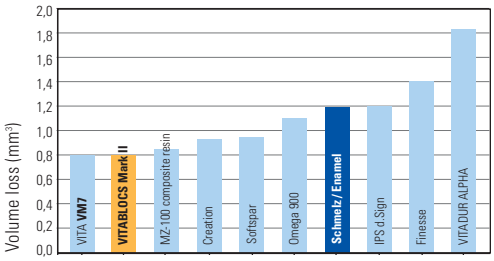
Homogeneous material structure



Pressed ceramics | VITABLOCS Mark II for CEREC®

Magnification: x500
Outstandingly homogeneous structure of the industrially sintered VITABLOCS Mark II for CEREC in comparison to laboratory-manufactured pressed ceramics.
Photographs: Russel A. Giordano, DMD, DMSc, Boston University, USA.

Outstandingly antagonist friendly



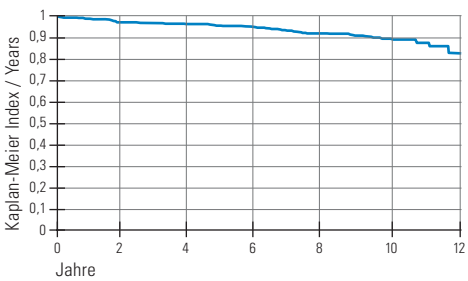
The diagram shows the extremely low degree of wear caused to the enamel by VITABLOCS Mark II. This is due to the fine structure of the Mark II ceramic. The taller the bar for each product represented on the graph, the more the enamel is abraded by the corresponding material.
McLaren, E.:, Giordano, R. et al.: Zweiphasige Vollglas-Verblendkeramik, Materialprüfung und Schichttechniken für ein neues Material zur Verblendung aluminiumkeramischer Gerüste. Quintessenz Zahntech 30, 1 32 - 45 (2004) (in German language)

VITABLOCS Mark II – Sizes and Shades

Designation	Dimensions (mm)	VITA SYSTEM 3D-MASTER									
I8	8 x 8 x 15	–	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C
I10	8 x 10 x 15	–	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C
I12	10 x 12 x 15	0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C
I14	12 x 14 x 18	0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C
V5-12	5 x 12 x 15	0M1C	1M1C	1M2C*	2M1C*	2M2C	2M3C*	3M1C*	3M2C	3M3C*	–
		VITAPAN Classical									
I8	8 x 8 x 15	A1C*	A2C	A3C	A3,5C*	B3C*					
I10	8 x 10 x 15	A1C*	A2C	A3C	A3,5C*	B3C*					
I12	10 x 12 x 15	A1C*	A2C	A3C	A3,5C*	B3C*					
I14	12 x 14 x 18	A1C*	A2C	A3C	A3,5C*	B3C*					
V5-12	5 x 12 x 15	A1C*	A2C	A3C	A3,5C*	B3C*					

*to be sold off as long as stocks last

Clinical survival rate



The Probability of Success According to Kaplan-Meier
Procedure: all restorations, n=1010
Reiss, B.: Walther, W.: Clinical Long-Term Results and 10-Year Kaplan-Meier Analysis of Computer-Aided Manufacture of Ceramic Inlays According to the CEREC Procedure. International Journal of Computerized Dentistry 2000; 3:9-23

1986
CEREC prototype „Zitrone" with its inventors, Prof. Dr. W. H. Mörmann and Dr. Marco Brandestini

1986
The first production series (VITABLOCS Mark I for CEREC) for the CEREC technology for the manufacture of inlays, onlays and veneers.

1991
Introduction of the VITABLOCS Mark II for CEREC fine-structure feldspar ceramic blocks.

„Real chairside material with natural translucency and fluorescence that correspond to natural teeth."

Dr. Christof Ellerbrock, Idar-Oberstein, Germany

VITABLOCS® ESTHETIC LINE

The blocks with extra translucency

The VITABLOCS ESTHETIC LINE are fine-structure feldspar ceramic blocks with an especially high degree of translucency. They are especially suitable for the manufacture of veneers and anterior crowns. Patients whose teeth have a low degree of chroma will benefit particularly from this variant of VITABLOCS.

No matter whether you use Mark II, ESTHETIC LINE or TriLuxe, the CEREC system enables you to perform all steps of the treatment right up to the seating of the definitive restoration. Seating is possible immediately after milling. Any necessary intra-oral corrections can be carried out easily and precisely using diamond abrasive instruments. Glaze firing of the restoration is not required, only polishing. Just design it, mill it, polish it - and go!

Photographs: Dr. Harald Steinbrenner

Photographs: Dr. Helmut Götte

VITABLOCS ESTHETIC LINE – Sizes and Shades

Designation	Dimensions (mm)	VITA SYSTEM 3D-MASTER
K12	10 x 12 x 15	EL-1M1C
K14	12 x 14 x 18	EL-1M1C
V7	7 x 12 x 18	EL-1M1C

1997
Introduction of the VITA In-Ceram Classic ALUMINA BLANKS and VITA In-Ceram Classic SPINELL BLANKS.

1998
Expansion of the CEREC range of materials with VITABLOCS Mark II and VITABLOCS ESTHETIC LINE in 3D-MASTER shades.

1999
Introduction of the VITA In-Ceram Classic ZIRCONIA BLANKS.

„With the VITABLOCS TriLuxe I can fulfil the patient's aesthetic requirements to an even higher degree in a very short space of time."

Dr. Harald Steinbrenner, Heppenheim, Germany

VITABLOCS® TriLuxe

Layered blocks with 3 different degrees of chroma just as in natural teeth - for even better chairside aesthetics.

Photographs: Dr. Andreas Kurbad

Thanks to a special manufacturing process, VITA Zahnfabrik has succeeded in integrating three different degrees of colour saturation (chroma), and hence three different degrees of translucency into one single VITABLOC TriLuxe. The fine-structure feldspar ceramic is kind to grinding instruments and is distinguished by its antagonist friendly abrasion characteristics that correspond to those of natural tooth substance in addition to its optimum light transmission properties and whitish fluorescence.

These blocks have excellent grinding properties which enable dentists to reproduce at the chairside the characteristic colour variations present in a natural tooth with regard to translucency and shade intensity, and hence to achieve even better integration of the restoration with the patient's remaining natural tooth substance. The natural aesthetics of the restoration are achieved by means of the three layers within one VITABLOC TriLuxe; the middle (body) layer corresponds to the normal degree of shade intensity, the uppermost enamel layer is the least shade-intensive and at the same time the most translucent, whereas the lower cervical layer is the most strongly shaded and - as in the natural tooth - the least translucent.

VITABLOCS TriLuxe - Sizes and Shades

Designation	Dimensions (mm)	VITA SYSTEM 3D-MASTER		
TRI12	10 x 12 x 15	1M2C	2M2C	3M2C
TRI14	12 x 14 x 18	1M2C	2M2C	3M2C

2001
Introduction of the VITA In-Ceram Classic ALUMINA BLANKS and ZIRCONIA BLANKS.

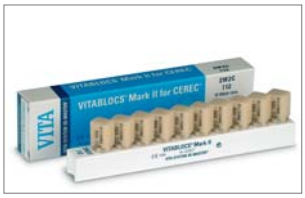
2002
Introduction of the VITA In-Ceram 2000 YZ CUBES (zirconium oxide).

2003
Introduction of the VITABLOCS TriLuxe.

VITABLOCS® Accessories

VITABLOCS® 3D-MASTER
Assortment for CEREC® 3

VITA 3D-MASTER Assortment
for CEREC® 2



VITABLOCS® Mark II for CEREC®

VITABLOCS® Mark II for CEREC®
for the reproduction of bleached teeth

VITABLOCS® ESTHETIC LINE
for CEREC®

VITABLOCS® TriLuxe for CEREC®

VITABLOCS® Shade sample blades

VITABLOCS® Storage Box

VITA CEREC® Propellant

VITA CEREC® Spray Head for
Propellant

VITA CEREC® Powder

VITA CEREC® Liquid

VITA CEREC® DIAMOND DISCS E

Individualization: Staining Technique, Layering Technique

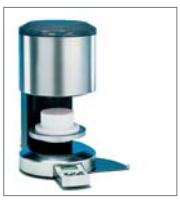
VITA SHADING PASTE
Assortment

VITA SHADING PASTE
3D-MASTER Assortment

VITA Akzent Assortment

VITA VM®9 ESTHETIC
KIT for VITABLOCS®

Ceramic Furnaces



VITA ATMOMAT

VITA VACUMAT 40 T

Adhesive Technique

VITA LUTING SET
Complete Adhesive Set

VITA CEREC® DUO CEMENT KIT
Adhesive Composite

VITA CEREC® A.R.T BOND SET
Adhesive Bonding System

VITA CEREC® A.R.T BOND,
PRIMER A+B Refill Package

VITA CEREC® A.R.T BOND,
BOND Refill Package

VITA CEREC® ETCHANT GEL KIT
35% phosphoric acid gel

VITA CERAMICS ETCH
5% hydrofluoric acid gel

VITASIL®
silane bonding agent

VITA OXY-PREVENT
glycerine gel

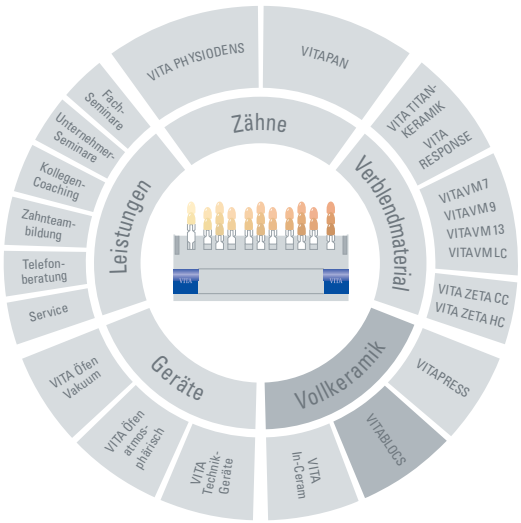
2004
Introduction of the VITA**VM 9** ESTHETIC KIT
for VITABLOCS.

2004
Introduction of the VITA In-Ceram 2000 YZ
CUBES (zirconium oxide).

2005
Introduction of the VITA
In-Ceram 2000 AL CUBES
(pure Al_2O_3).

VITABLOCS are an integral part of the unique VITA SYSTEM 3D-MASTER. This system guarantees shade matching according to the system at all times even for subsequent restorations made of any other VITA material for the purpose of conservative and prosthetic restorations.

This is because all shade-related VITA products are integrated into the VITA SYSTEM 3D-MASTER.
It is the only shade system with which all natural tooth shades can be systematically determined and completely reproduced according to the 3 determination criteria of colour - namely lightness (value), colour saturation (chroma) and hue.



Please note:
Our products should be used according to the working instructions. We cannot be held liable for damages resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of applications. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers which are not compatible or not authorized for use with our product. Furthermore, our liability for the correctness of this information is independent of the legal ground and, in as far as legally permissible, is limited to the invoiced value of the goods supplied excluding turnover tax. In particular, as far as legally permissible, we do not assume any liability for profit loss, for indirect damages, for consequential damages or for claims of third parties against the purchaser. Claims for damages based on fault liability (fault in making the contract, breach of contract, unlawful acts, etc.) can only be made in the case of intent or gross negligence. Date of issue of these instructions for use: 05/05

VITA Zahnfabrik is certified according to the Guideline for Medical Devices and the following products bear the CE mark CE 0124

VITABLOCS® Mark II for CEREC®
VITABLOCS® ESTHETIC LINE for CEREC®
VITABLOCS® TriLuxe for CEREC®

CEREC® is a registered trademark of Sirona Dental Systems GmbH, Bensheim, Germany

VITA

VITA Zahnfabrik H. Rauter GmbH & Co.KG
Postfach 1338 · D-79704 Bad Säckingen · Germany
Tel. +49 7761/562-0 · Fax +49 7761/562-299
www.vita-zahnfabrik.com · info@vita-zahnfabrik.com

1314E0505(?)Sma