ivoclar

Everything for chairside CAD/CAM restorations

Smart solutions

for Planmeca PlanMill® users

≗e.max® ZirCAD MT Multi A2 C17

^{₽.}max®CAD

A1 16(MD) ivocid vivade ivoclar vivadent:

Making People Smile

All you need for treatment in the dental practice

Planmeca FIT dentists have been relying on our products for many years. Our clinically proven solutions are coordinated with each other to allow a smooth workflow. They cover a diverse field of applications and offer you everything you need.

Your benefits: durable, esthetic and accurate restorations paired with efficient and time-saving workflows.

Coordinated products

care

- High clinical evidence demonstrating the reliable quality of chairside restorations
- Suitable material and shade for every clinical situation
- Innovative auxiliaries enabling efficient dental procedures – from the initial consultation to after-

✓ Smart solutions to speed up your practice

Efficient workflows, maximum flexibility



Every 10 seconds, an IPS e.max restoration is placed^[4].

IPS e.max has been a firm favourite of dentists and patients for many years. Over 170 million restorations have been placed to date^[4].



 Over 170 million IPS e.max restorations placed^[4]

✓ By your side since 2005

✓ 10-year guarantee

The world's best-selling glass-ceramic^[4]

IPS e.max[®] CAD

The highly esthetic lithium disilicate glass-ceramic (LS₂) IPS e.max CAD is designed for the efficient fabrication of full-contour restorations. The material stands for maximum flexibility. It offers a versatile field of applications, a full range of processing options and a high strength of 530 MPa^[1]. The material's esthetic properties and longevity have been confirmed by everyday clinical practice^[5-7].

Processing options





Glazing technique

Types of restorations:

- Crowns
- Inlays
- Onlays (e.g. occlusal veneers, partial crowns)
- Veneers
- Implant-supported hybrid crowns
- 3-unit bridges up to the second premolar as the terminal abutment



Block sizes, shades and translucency levels

- 4 block sizes (I12, C14, C16, B32) and 2 abutment block sizes (A14, A16)
- 3 translucency levels and 2 Impulse blocks (HT - High Translucency, MT - Medium Translucency, LT – Low Translucency)
- Comprehensive range of shades: available in A-D and BL shades (the range of shades varies depending on the translucency level)









Staining technique

 Excellent esthetics and high biaxial strength of 530 MPa^[1] ✓ 97.2% survival rate of posterior crowns over a period of 10 years^[8] ✓ Clinical long-term success and scientifically documented results^[5-7] ✓ 10-year guarantee ✓ Conventional, adhesive or selfadhesive cementation options

High-strength zirconium oxide

IPS e.max[®] ZirCAD

IPS e.max ZirCAD allows the efficient fabrication of esthetic monolithic zirconia restorations using a high-speed sintering process.



IPS e.max ZirCAD MT Multi combines two raw materials in one product: Translucent 5Y-TZP zirconium oxide imparts high levels of translucency to the incisal area. More opaque 4Y-TZP zirconium oxide provides high strength to the dentin area.

In addition, the material features a specially designed gradual progression of shade and translucency, consisting of 60% dentin, 20% transition and 20% incisal zone.*

Types of restorations:

- Crowns
- 3-unit bridges

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Processing options





B45 MT Multi A2 Le.max[®]ZirCAD vivade Ð

- level)

Glazing technique



Staining technique

Block sizes, shades and translucency levels

- 2 block sizes (C17, B45)

- 1 translucency level and Multi block

(LT – Low Translucency, MT Multi – Medium Translucency) - Available in shades BL, BL1, A1, A2, A3, B1, B2, C2, D2 (the range of shades varies depending on the translucency



✓ Natural fluorescence with the IPS e.max CAD Crystall./Glaze Fluo paste*

✓ 10-year guarantee

✓ Conventional, adhesive or selfadhesive cementation

Highly esthetic leucite glass-ceramics

Efficient composite

IPS Empress[®] CAD

IPS Empress CAD restorations have been used clinically for decades. They are characterized by their high esthetics and can be polished to a high gloss quickly and easily. A special highlight is the polychromatic CAD Multi block. This block is distinguished by a natural progression of shade and fluorescence from the dentin to the incisal area.

Block sizes, shades and translucency levels

- 4 block sizes (I10, I12, C14, C14 L)
- 2 translucency levels (HT, LT) and Multi block
- Comprehensive range of shades: available in A-D and BL shades (the range of shades varies depending on the translucency level)

Tetric[®] CAD

Tetric CAD is an esthetic composite block for creating single-tooth restorations efficiently via the CAD/CAM technique. Given the pronounced chameleon effect, Tetric CAD restorations blend in with the residual tooth structure in an optically pleasing manner. The restoration is polished after milling and then seated using an adhesive cementation protocol.

Types of restorations:

- Veneers
- Inlays
- Onlays (e.g. partial crowns, occlusal veneers)
- Crowns

Types of restorations:

- Crowns
- Inlays
- Onlays (e.g. partial crowns)
- Veneers



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- ✓ Highly esthetic restorations, efficiently created
- Material that has been used clinically for decades with a flexural strength of 185 MPa.^[1]
- Optimum adjustment of the shade to the natural tooth structure due to the chameleon effect

 True-to-nature integration into the oral environment due to the unique chameleon effect

- Easy and efficient processing
- Excellent polishability and intraoral repairability
- High stability even in limited layer thicknesses; restorations with thinly tapered margins possible

Block sizes, shades and translucency levels

- 1 block size (C14)
- 2 levels of translucency (HT, MT)
- Available in shades BL, A1, A2, A3, A3.5 (the range of shades varies depending on the translucency level)



MT A2 / C 14

Cross-linked **PMMA** material

Telio[®] CAD

Telio CAD are cross-linked PMMA blocks for the efficient fabrication of long-term temporaries. As a result of an optimized manufacturing process, the restorations feature a smooth surface that can be quickly and efficiently polished.

Types of restorations:

- Temporary crowns
- Temporary bridges with up to two connected pontics
- Implant-supported temporary hybrid abutment crowns

Telio[®] CAD LT A2 / B40 L

Block sizes, shades and translucency levels

- 2 block sizes (B40 L, B55) and
- 1 abutment block size (A16)
- 1 translucency level (LT)
- Available in shades BL3, A1, A2, A3, A3.5, B1, B3, C2, D2

✓ High material homogeneity and process reliability result in fewer mixing errors and air entrapments compared with conventional methods

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CAD

Excellent polishability

ivoclar vivadent

- ✓ Shade stability and lifelike fluorescence*
- Economical fabrication of longterm temporaries

Material overview

	Variolink® Esthetic		SpeedCEM® Plus	Telio [®] CS Link	Multilink® Hybrid Abutment <u>*</u>
Curing	Light-curing	Dual-curing	Self-curing with light- curing option	Dual-curing (light- and self-curing)	Self-curing*
Method	Adhesive		Self-adhesive	Temporary	Adhesive*
Conditioning	Adhese® Universal or Syntac®				
	Monobond Etch & Prime®				Monobond® Plusand IPS Ceramic Etching Gel
PS e.max® CAD .ithium disilicate (LS ₂) glass-ceramics					
Occlusal veneers	~	~	-	-	-
/eneers	~	~	-	-	-
nlays, onlays, partial crowns	~	~	-	-	-
Inimally invasive crowns (1 mm)	-	~	_	_	_
Crowns	-	×	~**	_	_
-unit bridges	-	~	~ **	_	_
Hybrid abutment crowns	-	-	-	-	~
PS e.max® ZirCAD Zirconium oxide (ZrO₂) ceramics					
Crowns	_	-	~	_	_
-unit bridges	-	-	~	_	-
PS Empress® CAD .eucite glass-ceramics					
nlays, onlays, partial crowns	×	~	_	_	_
/eneers	×	~	_	_	-
Crowns	_	~	_	_	_
etric® CAD Composite					
Occlusal veneers	~ ****	~ ****	-	-	-
/eneers	~ ****	~ ****	-	-	-
nlays, onlays, partial crowns	~ ****	~ ****	-	-	-
Crowns	√ ****	√ ****	-	-	-
elio® CAD Cross-linked PMMA material					
emporary crowns	-	-	-	~	-
emporary bridges with up to 2 connected pontics)	-	-	_	~	-
emporary hybrid abutment crowns	_	_	_	_	~ ***

 Recommended product combination Not recommended

* At natural lighting conditions. The use of artificially generated UV or UV-like light may result in a different impression





Please observe the corresponding Instructions for use.

Finalizing

IPS e.max[®] CAD Crystall./ Shades, Stains und Glaze



IPS e.max CAD Crystall./Shades/Stains and Glaze are a universal range of stains and glazes designed for IPS e.max CAD, IPS e.max ZirCAD and **IPS Empress CAD.**

Stains

IPS e.max CAD Crystall./Shades are dentin stains in paste form. They are optimally coordinated with lvoclar's range of CAD/CAM materials. The intensive IPS e.max CAD Crystall./Stains are also supplied in paste form. They are suitable for imitating natural tooth characteristics.

Glaze

Glazes are available in two delivery forms: glaze spray and paste. In addition, paste formulation is available in two versions - with or without fluorescent effect.

Add-On

IPS e.max CAD Crystall./Add-On is suitable for applying minor corrections to IPS e.max CAD and IPS e.max ZirCAD restorations (e.g. to proximal contact areas).



Delivery form

e.max CAD

Crystall. / Acht On MCS

- IPS e.max CAD Crystall./Shades: 0, 1, 2, 3, 4, 11, 12
- IPS e.max CAD Crystall./Stains: white, crème, sunset, copper, olive , khaki, mahogany
- IPS e.max CAD Crystall./Glaze Paste
- IPS e.max CAD Crystall./Glaze Paste Fluo
- IPS e.max CAD Crystall./Glaze Spray
- IPS e.max CAD Crystall./Glaze Liquid
- IPS e.max CAD Crystall./Add-On: Dentin, Incisal
- IPS e.max CAD Crystall./Add-On Liquid



- Reduced inventory, reduced costs a single range suitable for IPS e.max CAD, IPS e.max ZirCAD and IPS Empress CAD
- ✓ Familiar application and consistently high quality
- ✓ Glaze with and without fluorescent effect*

* At natural lighting conditions. The use of artificially generated UV or UV-like light may result in a different impression.

Firing

Speed

Easy

operation

ongstanding

track record

of success

Open

systems

Programat[®] chairside furnaces

Clinicians and dental technicians all over the world simply love the high quality standard, homogeneous firing results and straightforward operation that the Programat furnaces offer alongside many other innovative features. It is not without reason that the Programat furnaces are among the best-selling ceramic furnaces^[4].

 Specially developed Speed programs will crystallize the IPS e.max CAD materials in extremely short times. programs

> ✓ Our user-friendly chairside furnaces are intuitive to operate with a large colour touchscreen.

✓ The 40-year success story of the Programat series is evidence for the high quality standard of these furnaces.

 In addition to the preinstalled lvoclar programs, indivdual programs can easliy be created.

Programat CS2 Crystallization and glazing furnace

Programat CS6

and glazing furnace



Reliable cementation

Variolink[®] Esthetic

Variolink Esthetic is a versatile and esthetic light- and dual-cure luting composite for the permanent placement of all types of restorations and materials.

Applied in combination with Monobond Etch & Prime, the first selfetching glass-ceramic primer worldwide, Variolink Esthetic produces high bond strength values on restorations made of glass-ceramic.[10]

Suitable for the cementation of restorations made of:

- Lithium disilicate
- Glass-ceramic
- Composite resin

Coordinated with IPS e.max

ivoclar

Variolink® Esthetic DC Dual-curing resin-based dental luting material

ZirCAD[®] Cement

ZirCAD Cement is a new highperformance resin-modified glass ionomer cement designed for everyday use. Easy clean-up of excess cement and a straightforward application protocol ensure predictable cementation results in every clinical situation. There is no need for applying an additional primer or for conditioning.

Suitable for the cementation of restorations made of:

- Zirconium oxide materials



- ✓ Well-balanced and compact Effect shade range
- Proven shade stability^[18]
- ✓ User-friendly application protocol easy, controlled clean-up of excess material^[19]
- ✓ Available in a light-curing version (LC) and in a dual-curing version (DC)

Implant prosthetics

From temporary to permanent restorations

Blocks made of IPS e.max CAD and Telio CAD come with a pre-fabricated interface for the extraoral cementation to the titanium bonding base Viteo Base Ti. The titanium bonding base is coordinated with various used implant systems. This allows implant-supported hybrid abutments and hybrid abutment crowns to be created at chairside using clinically proven products^[19-21]. Cementation is achieved with the self-curing Multilink Hybrid Abutment luting composite.



Titanium bonding base

Viteo Base Ti





- ✓ Straightforward design of the emergence profile^[21-22]
- ✓ Visualization of the permanent prosthetic solution
- ✓ Pre-fabricated interface in size SD and MD for Viteo Base Ti



Cementation Multilink Hybrid Abutment

- values[19, 21]



Permanent restoration IPS e.max CAD (A14, A16)



- Esthetic restoration achieved with tooth-coloured hybrid abutments
- ✓ Hybrid abutment crown (2-in-1) offers excellent function and efficiency^[19-20]
- ✓ Good biocompatibility with oral soft tissues^[19]



Care Implant care products

✓ The original base for IPS e.max and Telio CAD ✓ The conditioned base ensures a durable bond ✓ The optimum base for Ivoclar Abutment Solutions

✓ Permanent cementation based on high bond strength

 Optimum esthetics due to high opacity Easy handling with the convenient automix syringe

✓ For the different phases of the implant treatment procedure and aftercare

Coordinated range of products for assuring the long-term quality of valuable implant restorations

Maximizing the efficiency of day-to-day tasks in the dental practice

Alongside our proven blocks, it is our range of useful auxiliaries that make our products so attractive for CAD/CAM dentists all over the world. Everything from a single source.

Ivoclar Smile for visualizing the result of the esthetic makeover in advance of the treatment

OptraGate

for retracting the lips and cheeks easily and gently over a large area

IPS e.max Shade Navigation App for selecting the appropriate block for the given application

OptraGloss for the efficient polishing of ceramic and composite resin restorations

CNS - Cementation Navigation System for finding the most suitable luting material for your cementation needs

Adhese Universal for convenient direct intra-oral application, compatible with all etching techniques

Bluephase PowerCure for reliable curing results due to high light intensity

Cervitec Plus for protecting high-quality restorations from harmful bacteria

References

- [1] Average biaxial flexural strength; outcome after more than 10 years of ongoing
- quality testing, R&D Ivoclar, Schaan, Liechtenstein. Typical mean value of flexural strength, R&D Ivoclar, Schaal
- Dentin, typical mean value of flexural strength, R&D lvoclar, Schaar
- Based on global sales figures.
- [4] Based on global sales figures.
 [5] Fasbinder D. J et al, Study report, 2017b.
 [6] Rauch A et al, Clin. Oral Investig. 2018, 22, p. 1763-1769.
 [7] Boldt J, Spitznagel F, A, Dtsch. Zahnaerzti. Z. 2017, 72 (4), p. 319-325.
 [8] The survival rate of monolithic IPS e.max CAD posterior crowns was evaluated with the Kaplan-Meier method. The failure rate refers to technical failures such as fractures and chipping, R&D Ivoclar, Schaan, Liechtenstein.
 [9] Aslan Y, U et al, Eur. J. Prosthodont. Restor. Dent. 2019 (27), p. 131-140.
 [10] Lyann S. K et al, J. Adhes. Dent. 2018 (20), p. 261-268.
 [11] Schmitz JH, Beani M, J. Adv. Prosthodont. 2016 (115), p. 678 683.
 [12] The Dental Advisor, 2016, 33(6), p. 10-11.
 [13] Sasse M et al, Int J. Comput. Dent. 2013 16, p. 109-18.

- [13] Sasse M et al., Int. J. Comput. Dent. 2013, 16, p. 109-18.



- [14] Programat CS6, Superspeed crystallization, 11:10 minutes, IPS e.max CAD HT, MT, LT, IPS e.max CAD Crystall./ Glaze Spray or Self Glaze, max. 2 restorations, R&D lvoclar, Schaan, Liechtenstein.
 [15] Programat CS6, Speed sintering, 22:00 minutes (without pre-drying), IPS e.max ZirCAD LT and IPS e.max ZirCAD MT Multi, processing a maximum of three
- Gianasmidis A, DZW 2016 (39), p.18-19.
- [19] De Angelis P et al., J. Prosthet. Dent. 2019, 123, 252-256.
 [20] Zhang Y et al, Clin. Oral Implant. Res. 2019, 30, 1059-1066
- [21] Comlékoglu M. E et al, Clin. Oral Investig. 2017, 2018, 22, 475-486.
 [22] Kurbad A, Int. J. Comput. Dent. 2014, 17, 239-251.
- Additional data on file.

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