A natural gradient of chroma and translucency

© 2016 Ivoclar Vivadent, Inc. Ivoclar Vivadent and SpeedCEM are registered trademarks of Ivoclar Vivadent, Inc.

IPS e.max® ZirCAD

Information for the Laboratory

IPS e.max ZirCAD Multi

passion vision innovation
Since its launch, the IPS e.max system from Ivoclar Vivadent has become a leading all-ceramic mainstay that has benefited laboratories, clinicians and patients alike. Consisting of lithium disilicate glass ceramic materials, IPS e.max Press and IPS e.max CAD, the IPS e.max system has now been expanded to include a comprehensive selection of zirconium oxide discs and blocks under IPS e.max ZirCAD.

IPS e.max ZirCAD is a versatile, premium zirconium oxide material with a large indication range. Available in four different translucency levels, IPS e.max ZirCAD is ideal for fabricating copings and frameworks as well as full-contour crowns and bridges. IPS e.max ZirCAD is the material of choice for when high strength, minimal reduction and natural looking esthetics are required. Dental professionals benefit from the material’s high performance, adaptability, and premium results.

IPS e.max lithium disilicate and IPS e.max zirconium oxide offer versatile all-ceramic solutions for every case. IPS e.max is the only system that brings these two materials together in a single, comprehensive, easy to use solution that allows all indications in fixed prosthetics to be covered with an all-ceramic option.
High strength, premium esthetics, versatile processing options.

Not all Zirconia is created equal.

IPS e.max ZirCAD MT and MT Multi were specifically developed to stand out in the wide range of zirconia translucency options on the market. This medium translucency (MT) range of discs offers a unique powder formulation, which provides high biocompatibility and excellent flexibility.

Unlike other anterior or HT zirconias, MT and MT Multi offer optimized esthetics, with natural looking restorations that don’t grey in the mouth. Furthermore, with up to 30% higher flexural strength and 50% higher fracture toughness compared to other common translucent zirconia materials, MT discs allow for the fabrication of a wide variety of indications and conservative preparations without compromising the longevity of the restoration.

1 Mean biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein  
2 Anterior tooth  
3 Posterior tooth  
4 These brands are not registered trademarks of Ivoclar Vivadent, Inc.  
5 Flexural strength according to manufacturer’s data.
IPS e.max® ZirCAD

**Maximum flexibility in anterior and posterior restorations**

Fracture toughness measured by the Vickers indentation method
R&D Ivoclar Vivadent AG, Schaan, Liechtenstein.

**Fracture toughness [MPa·m^1/2]**

A high fracture toughness increases the ability to resist crack propagation. The higher the measured value, the better the long-term clinical performance.

Flexural strength [MPa]

A high flexural strength is of significant importance for restorations in stress-bearing areas. Flexural strength is calculated on the basis of the fracture load, or the force applied to a material just before it yields.

- Monolithic Frameworks
  - Strength: 1,150 MPa
  - Wall thickness: 0.4 / 0.6 mm

- Monolithic Frameworks
  - Strength: 1,200 MPa
  - Wall thickness: 0.4 / 0.6 mm
IPS e.max® ZirCAD MT Multi
The most esthetic, high strength multi-translucent zirconia.

The unique polychromatic formulation of IPS e.max ZirCAD MT Multi provides the perfect combination of zirconia strength (850MPa\(^1\)), color, and translucency.

Designed for both the anterior and posterior region, the integrated progression of shade and translucency in IPS e.max ZirCAD MT Multi maximizes the appearance of monolithic crowns and bridges. Unlike some other multi-zirconia discs on the market, which only change the shading through the disc with pigments, IPS e.max ZirCAD MT Multi offers innovative shading technology to provide a true evolution of material composition from MT to HT zirconia. The results are restorations that demonstrate a natural progression of chroma and translucency from dentin to enamel. Not only does this allow for a beautiful restoration, it also allows for the efficient production of restorations in A-D shades without requiring further characterization or staining.

**Indications**
- Full contour crowns
- Full contour three-unit bridges

**Processing options**
- Staining
- Glazing

**Benefits at a glance**
- Especially suited for highly esthetic monolithic restorations
- Efficient due to fewer manual processing steps
- Possibility of fabricating three-unit anterior and posterior bridges due to high strength and fracture toughness
- Suited for conservative preparations; only requiring 0.8 mm of tooth reduction in the anterior and 1.0 mm of tooth reduction in the posterior.

\(^1\) Mean biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein
IPS e.max® ZirCAD MT Multi

The most esthetic, high strength multi-translucent zirconia.

Delivery form

Shades: 8 polychromatic discs with graduated level of shade and translucency in the shades BL1, A1, A2, A3, B1, B2, C2, D2
Translucency: MT Multi (Medium Translucency Multi)
Ø: 98.5 mm
Thicknesses: 16 and 20 mm

Glazing is all that it takes to finish the highly esthetic restoration.
IPS e.max® ZirCAD MT
The most versatile, esthetic, high strength zirconia.

For easily customizable esthetic zirconia restorations, with no sacrifice in strength (850MPa), IPS e.max ZirCAD MT is the ideal zirconia choice.

Lending itself to various processing options, IPS e.max ZirCAD MT offers a high degree of flexibility when creating unique detailed restorations. The wide range of shades enables the efficient fabrication of esthetic monolithic or layered restorations, with the option of custom infiltration before sintering.

Indications
- Full contour crowns
- Full contour three-unit bridges

Processing options
Depending on which disc is used, the following processing options are available:
- Brush infiltration
- Staining
- Cut-back
- Glazing

Benefits at a glance
- Especially suitable for esthetic monolithic anterior and posterior restorations
- Maximum customization due to individual characterization before sintering
- Suited for conservative preparations; only requiring 0.8 mm of tooth reduction in the anterior and 1.0 mm of tooth reduction in the posterior.

1 Mean biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein
### Delivery form

- **Shades:** 1 Bleach and 7 monochromatic discs in shades BL, A1, A2, A3, B1, B2, C2, D2
- **Translucency:** MT (Medium Translucency)
  - Ø: 98.5 mm
- **Thicknesses:** 14 and 18 mm
- **Liquids:** IPS e.max ZirCAD MT Coloring Liquids
  - 16 A–D shades, 60 ml
  - 5 Effect shades, 15 ml (blue, violet, grey, orange, brown)

IPS e.max ZirCAD Coloring Liquid Indicators
- 3 Indicators, 15 ml (blue, red, yellow)
- Diluter, 60 ml

---

Simply stain and glaze with IPS Ivocolor
CROWNS CUSTOMIZED BY BASIC-SCHÉME INFILTRATION
CROWNS CUSTOMIZED BY ADVANCED-SCHÉME INFILTRATION
IPS e.max® ZirCAD LT
The all-round, high strength zirconia.

IPS e.max ZirCAD LT is the workhorse in the portfolio, especially when strength is of paramount importance. The material combines high mechanical stability (1,200 MPa) with pleasing esthetics. These properties make IPS e.max ZirCAD LT suitable for the fabrication of minimally invasive single-tooth restorations and stable multi-unit framework structures. Implant-supported superstructures supplement the offering. Restorations can be produced using a variety of techniques: monolithic method, infiltration, partial veneering and complete veneering.

Indications
- Full contour crowns
- Full contour bridges with three or more units
- Framework structures with three or more units
- Framework structures with crowns

Processing options
Depending on which disc is used, the following processing options are available:
- Brush infiltration
- Staining technique
- Layering technique
- Glazing

Benefits at a glance
- Tooth-preserving preparation due to low wall thicknesses
- Minimally invasive crowns
- Especially suitable for long-span bridges due to an excellent flexural strength of 1,200 MPa and high fracture toughness

1 Mean biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein
* Bridge indications limited in Canada to 6 units with no more than 2 pontics.
These brands are not registered trademarks of Ivoclar Vivadent AG.

Restoration veneered with IPS e.max 

Power Dentin and Incisal materials

Maximum customization by infiltration

Delivery form

Shades: 1 Bleach and 6 monochromatic discs in group shades 0, 1, 2, 3, 4, sun, sun chroma and 8 A–D-shades BL, A1, A2, A3, B1, B2, C2, D2

Translucency: LT (Low Translucency)

Ø: 98.5 mm

Thicknesses: 12, 14, 16, 18, 20 and 25 mm

Liquids: IPS e.max ZirCAD LT Coloring Liquids

– 16 A–D shades, 60 ml
– 6 Effect shades, 15 ml (blue, violet, grey, orange, brown, purple)

IPS e.max ZirCAD Coloring Liquid Indicators

– 3 Indicators, 15 ml (blue, red, yellow)
– Diluter, 60 ml

Blocks: for PrograMill, CEREC/inLab® and PlanMill®

Shades: LT BL, A1, A2, A3, B1, B2, C2, D2

Block sizes: C17, B45
IPS e.max® ZirCAD MO
The classic, creative framework zirconia.

IPS e.max ZirCAD MO has been developed for application in the classic veneering technique. Even discolored preparations and metal cores can be effectively concealed due to the material’s heightened opacity. It allows the fabrication of customized, highly esthetic restorations.

Indications
- Framework structures with crowns
- Framework structures with three or more units

Processing options
- Layering technique
- Press-over technique
- CAD-on technique

Benefits at a glance
- Especially suitable for the fabrication of multiple unit bridge frameworks due to an excellent flexural strength of 1,150 MPa and high fracture toughness
- Effective masking of discoloured tooth structure and metal cores
- Natural shades for advanced esthetics

1 Mean biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein
* Bridge indications limited in Canada to 6 units with no more than 2 pontics.
Delivery form

Shades: 1 Bleach and 4 monochromatic discs in group shades 0, 1, 2, 3, 4
Translucency: MO (Medium Opacity)
Ø: 98.5 mm
Thicknesses: 10, 14, 18, 20 and 25 mm

Blocks: for inLab*
Shades: 3 monochromatic blocks in group shades 0, 1, 2
Block sizes: C13, C15, C15 L, B40, B40 L, B55, B65, B65 L-17, B85 L-22

*This brand is not a registered trademark of Ivoclar Vivadent AG.
Precision fabrication, designed for IPS e.max®

The innovative and modern PrograMill milling machines for wet and dry processing are fully tailored to the IPS e.max range of materials. The 5-axis machines enable the fabrication of IPS e.max ZirCAD and IPS e.max CAD restorations that are characterized by precision, accuracy of fit and efficiency due to material-optimized milling strategies.

Programat® S1 1600 is a light-weight, compact sintering furnace that offers a speed sintering program.

All IPS e.max ZirCAD restorations milled in the course of a day can be sintered overnight in the Programat S1 1600 with an overnight program. And if now and again the restorations have to be completed quickly, speed sintering programs are available.
A perfect match

The following products are especially suited for use in combination with the IPS e.max range of materials for both efficient and high-end applications:

**IPS Ivocolor**
Universal range of Stain and Glaze materials for all the ceramic materials from Ivoclar Vivadent.

**IPS e.max® Ceram**
For the veneering of frameworks made of lithium disilicate (LS₂) and zirconium oxide (ZrO₂). The Power Dentin and Incisal materials are especially coordinated with IPS e.max ZirCAD.

**IPS e.max® ZirPress**
For the press-over technique on IPS e.max ZirCAD MO frameworks.

**IPS e.max® CAD Veneering Solutions**
For the CAD-on technique on IPS e.max ZirCAD MO frameworks.

**IPS e.max® Shade Navigation App** is the intelligent app which assists you in finding the most suitable shade. Just 5 clicks to find the right solution for an optimum shade match.

Ideal luting system

We recommend the following proven cementation options to maximize the success of IPS e.max ZirCAD restorations:

**Ivoclean™**
Cleaning paste for the cleaning of the bonding surfaces after try-in.

**SpeedCEM® Plus**
For easy and fast self-adhesive cementation.

**CNS**
The Cementation Navigation System offers practical orientation and guidance in questions relating to cementation.

*Download it at www.cementation-navigation.com*