

Redefining esthetics

IPS e.max®
ZirCAD

Prime
Prime Esthetic

The ultimate
zirconium oxide



Esthetic and flexible – everything you need

IPS e.max ZirCAD Prime delivers a superior level of quality and high-end esthetics in zirconium oxide restorations. Optimized workflows enhance the efficiency and profitability of your dental laboratory. IPS e.max ZirCAD Prime and IPS e.max ZirCAD Prime Esthetic complement each other in terms of their material composition and their range of applications.

- ✓ Impressive esthetic appearance and high stability
- ✓ High-quality restorations featuring a seamless internal progression of shade and translucency
- ✓ Precise shading of the material to match the desired A-D shade
- ✓ All areas of application^[2]
- ✓ For all fabrication techniques: glazing, staining, cut-back, layering and infiltration^[3]
- ✓ 10-year IPS e.max guarantee

The IPS e.max ZirCAD Prime product family

IPS e.max ZirCAD Prime is an all-round disc that accommodates a wide variety of applications and techniques.

IPS e.max ZirCAD Prime Esthetic is a specialist disc that allows natural-looking^[1] crowns to be created efficiently.

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

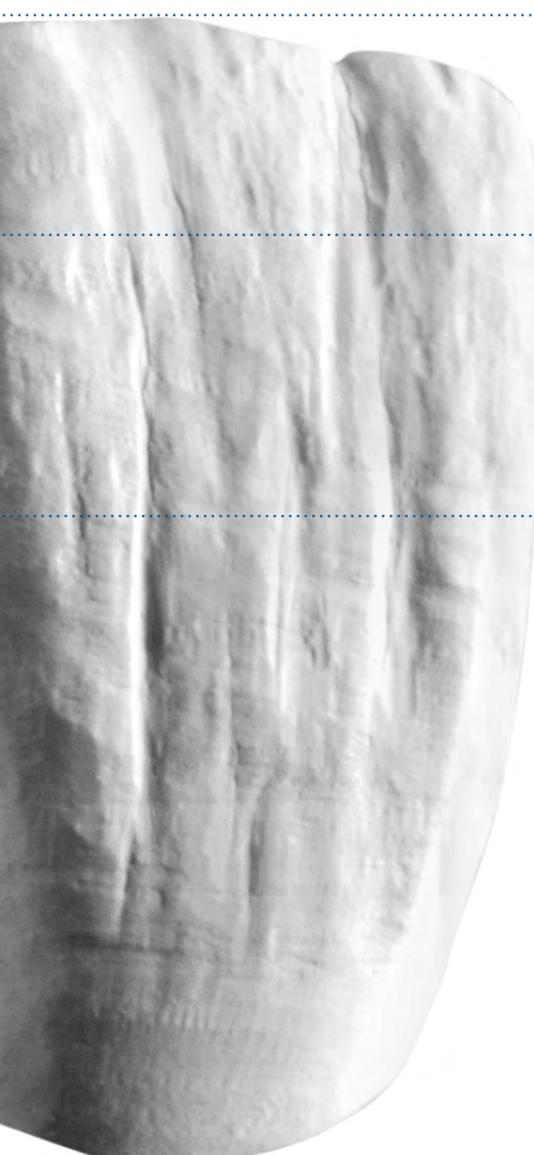
[2] IPS e.max ZirCAD Prime is suitable for fabricating crowns and bridges composed of up to 14 units, while IPS e.max ZirCAD Prime Esthetic is used for creating crowns and three-unit bridges. R&D Ivoclar Vivadent, Schaan, Liechtenstein

[3] IPS e.max ZirCAD Prime Esthetic is not approved for use in the layering technique. R&D Ivoclar Vivadent, Schaan, Liechtenstein



Gradient Technology: synonymous with prime quality

Gradient Technology (GT) is the key to the genuinely seamless progression of shade and translucency within the disc, the outstanding accuracy of fit of the product and its efficient processing properties. This technology is based on the blend of two zirconium oxide raw materials featuring different strengths and optical characteristics.



Highly translucent incisal zone

- Optimally coordinated shade
- Highest level of translucency in the incisal zone
- Highly esthetic 5Y-TZP zirconium oxide
- Flexural strength: 650 MPa^[4]
- 3-mm thickness, irrespective of the disc thickness

Innovative transition zone

- Seamless, layer-free transition zone
- Natural shading from the dentin to the enamel
- Progressively higher translucency towards the incisal zone
- Progressively higher flexural strength towards the cervical area
- 4-mm thickness, irrespective of the disc thickness

High-strength dentin zone

- Maximum stability in the tooth neck area
- Coordinated shading and opacity
- IPS e.max ZirCAD Prime Esthetic: high-strength 4Y-TZP zirconium oxide exhibiting a flexural strength of 850 MPa^[5]
- IPS e.max ZirCAD Prime: high-strength 3Y-TZP zirconium oxide exhibiting a flexural strength of 1200 MPa^[6]
- Thickness varies depending on the thickness of the disc (7-18mm)



Seamless progression of shade and translucency

- ✓ Innovative filling technology is responsible for the special structure of the disc, which sets it apart from other discs
- ✓ No layers within the disc
- ✓ Smooth transition between the dentin and the enamel



Adjusted sintering kinetics due to advanced and optimized powder conditioning

- ✓ For uniform shrinkage behaviour
- ✓ For exceptional accuracy of fit



Compaction of the discs by means of Cold Isostatic Pressing (CIP)

- ✓ Enhanced microstructure and shorter sintering cycles
- ✓ Optimized translucency



Precise shading

- ✓ Simple polishing or glazing produces an excellent shade match with the A-D shade guide
- ✓ For the efficient fabrication of shade matched restorations

[4] Typical mean value of the biaxial strength (incisal), R&D Ivoclar Vivadent AG, Schaan, Liechtenstein
[5] Typical mean value of the biaxial strength (dentin), R&D Ivoclar Vivadent AG, Schaan, Liechtenstein
[6] Typical mean value of the biaxial strength (dentin), R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

Redefining the esthetics of zirconium oxide

Do you fashion the majority of your crowns with zirconium oxide? Do you have high expectations for the materials you use and the restorations you create? Are you constantly looking for new ways to achieve impressive natural-looking results with ease? If that is the case, we would like to invite you to discover our vision of esthetics and share our enthusiasm for it!



Optimum results due to a special combination of raw materials

IPS e.max ZirCAD Prime Esthetic contains a blend of two zirconium oxide raw materials: 4Y-TZP and 5Y-TZP. They are responsible for a uniform progression of the shade as well as just the right balance of stability^[7], colour and translucency. As a result, your restorations will be characterized by an ideal combination of high flexural strength and lifelike, coordinated translucency values.

Efficient and esthetic

The fastest way to producing esthetic monolithic restorations

- ✓ Minimal manual effort yet impressive natural-looking results
- ✓ For esthetic restorations at a consistently high level of quality.
- ✓ Reliable and reproducible process

IPS e.max ZirCAD Prime Esthetic

Easy – economical – lifelike: It takes only a few steps to produce esthetic monolithic restorations. Additional staining or layering is unnecessary in most cases. Simple polishing or glazing is adequate for achieving an accurate match with the A-D shade guide. Efficiency and a low susceptibility to error are decided benefits.

IPS e.max ZirCAD Prime Esthetic

- ✓ The ultimate zirconium oxide disc for maximum esthetics
- ✓ Optimum combination of simplicity, efficiency and authenticity
- ✓ For crowns and three-unit bridges



[7] Typical mean value of the biaxial strength (dentin) of 850 MPa, R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

The all-round disc at a Prime level

IPS e.max ZirCAD Prime is the One-Disc Solution and therefore the all-round genius within the portfolio. The high-strength zirconium oxide material (1200 MPa^[8]) is known for its high accuracy of fit and exceptional quality. It ingeniously blends esthetics with flexibility and accommodates all applications and fabrication techniques.

High strength for maximum reliability

The high flexural strength of 1200 MPa allows the material to be used for an extensive range of applications. The disc can be used to fabricate restorations on prepared teeth and on implant abutment systems. Due to its high strength, IPS e.max ZirCAD Prime is suitable for minimally invasive cases as well as complex cases involving gingival recession and bone loss.



Versatile

Fascinating all-ceramics

- ✓ Extensive application spectrum ranging from crowns to wide-span bridges
- ✓ Choice of using either the staining, cut-back, layering or infiltration technique
- ✓ Very high flexural strength in the dentin zone, where bridges have to withstand the strongest forces

Many different processing possibilities – all rolled into one disc

The disc helps to simplify stock management. Regardless of the type of restoration needed, whether it be an efficiently fabricated monolithic posterior crown, a stable bridge, an implant-supported restoration or a highly esthetic and elaborately customized single anterior tooth: IPS e.max ZirCAD Prime always offers a suitable solution.



IPS e.max ZirCAD Prime

- ✓ The all-purpose One-Disc Solution for all requirements
- ✓ Maximum flexibility and creative freedom
- ✓ Extremely high strength teamed with exceptional esthetics

[8] Typical mean value of the biaxial strength (dentin) R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

Efficient workflow – high productivity

Take advantage of a system of products that is coordinated with IPS e.max ZirCAD Prime. It includes, for example, a milling machine, staining materials and a sintering furnace for a smooth and intuitive workflow that saves time and produces reliable results.

Fashioning lifelike restorations

You can recreate individual characteristics with the IPS Ivocolor stains and glaze system and produce effects such as those achieved in layered restorations.

Mill - sinter - glaze - and you're ready!

In cases where time is of the essence, you can finalize your IPS e.max ZirCAD Prime Esthetic restorations by simply using the fluorescent glazing paste: for vibrant results.

IPS e.max ZirCAD Prime A suitable disc for every situation

	IPS e.max ZirCAD Prime	IPS e.max ZirCAD Prime Esthetic
	The all-round disc for a wide variety of applications and techniques	The specialist disc for the efficient fabrication of natural-looking crowns
Class of material	incisal: 5Y-TZP dentin: 3Y-TZP	incisal: 5Y-TZP dentin: 4Y-TZP
Shade	BL1, BL2, BL3, BL4, A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4	BL1, BL2, BL3, BL4, A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4
Disc thickness (Ø 98.5 mm)	16 mm, 20 mm, 25mm	14mm, 16mm, 20mm
Flexural strength	650 MPa (incisal) 1200 MPa (dentin)	650 MPa (incisal) 850 MPa (dentin)
Fracture toughness ^[9]	>5.0 MPa · m ^{1/2} (dentin)	3.6 MPa · m ^{1/2} (dentin)
Minimum wall thickness (crown)	Anterior tooth monolithic: 0.8 mm Posterior tooth monolithic: 1.0 mm	Anterior tooth monolithic: 0.8 mm Posterior tooth monolithic: 1.0 mm
Applications	<ul style="list-style-type: none"> - Crowns and crown copings - 3-unit bridges and bridge frameworks - 4-unit and multi-unit bridges and bridge frameworks with max. 2 pontics - Crowns and bridges on natural teeth and on implant systems 	<ul style="list-style-type: none"> - Crowns - 3-unit bridges with max. 1 pontic
Recommended fabrication techniques	<ul style="list-style-type: none"> - Staining and glazing - Brush infiltration with LT Colouring and Effect liquids - Cut-back - Layering 	<ul style="list-style-type: none"> - Polishing - Staining and glazing - Cut-back

[9] Measurement of the fracture toughness using the Vickers testing method (dentin): R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

Zirconium oxide workflow: peak productivity, fast processing and esthetic results



Scan and design

The PrograScan PS5 is characterized by high scanning speeds and precise scanning results.



Decide

IPS e.max ZirCAD Prime delivers impressive esthetic results and exceptional quality.



Produce

PrograMill PM7 offers high performance and fast fabrication.



Sinter

The Programat S2 sintering furnace handles intuitively and ensures high accuracy of fit.



Finalize

The IPS Ivocolor stain and glaze system is used to customize the appearance of restorations for lifelike results.



Place

ZirCAD Cement offers convenient handling and easy clean-up in conventional cementation procedures.