

IPS e.max[®] ZirCAD

Prime and Prime Esthetic

ivoclar

Instructions for Dentists

For the fabrication of

✓ Crowns



✓ 3-unit bridges



✓ 4 or more unit bridges with max. 2 pontics (only IPS e.max ZirCAD Prime)⁽¹⁾



IPS e.max ZirCAD Prime:
Flexural strength⁽²⁾: 1200 MPa
Fracture toughness⁽³⁾: > 5 MPa • m^{1/2}

IPS e.max ZirCAD Prime Esthetic:
Flexural strength⁽²⁾: 850 MPa
Fracture toughness⁽³⁾: 3.6 MPa • m^{1/2}

⁽¹⁾ For all bridges, the specified minimum connector cross-section must be positioned in the dentin area of the disc. IPS e.max ZirCAD Prime Esthetic disc is only suitable for bridges with 3 units. Minimum thickness and connector dimensions are as follows.

Anterior region: connector dimensions 12mm², height 4mm, width 3mm. Posterior region: connector dimensions 16mm².

IPS e.max ZirCAD Prime disc is suitable for bridges up to 14 units in the USA. It is limited to 6 units with a minimum of 2 connected pontics in Canada. Minimum thickness and connector dimensions are as follows:

Anterior region: 3 unit bridges connector dimensions 9mm², 4- and multi-unit bridges with 2 pontics connector dimensions 9mm². Cantilever bridges with one pontic connector dimensions 9mm².

Posterior region: 3 unit bridges connector dimensions of 9mm², 4- and multi-unit bridges with 2 pontics connector dimensions 12mm², height: 4 mm, width: 3 mm. Cantilever bridges with one pontic 12mm². Height: 4 mm, width: 3 mm.

R&D Ivoclar Vivadent Schaan, Liechtenstein
Typical mean value of biaxial flexural strength (dentin), R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

⁽²⁾ Measurement of the fracture toughness according to Vickers indenter method (dentin), R&D Ivoclar Vivadent AG, Schaan, Liechtenstein

⁽³⁾ Only IPS e.max ZirCAD Prime.

⁽⁴⁾ IPS e.max ZirCAD Prime Esthetic restorations may not be fully veneered.

Preparation

Observe the general rules for all-ceramics:

- Prepare no angles or edges
- Prepare a shoulder with rounded inner edges or a chamfer at an angle of 10°–30°.
- Evenly reduce the anatomical shape while observing the stipulated minimum wall thicknesses (mm).
- For conventional and/or self-adhesive cementation, the preparation must demonstrate retentive surfaces (preparation height at least 4 mm).



Shoulder preparation



Chamfer preparation



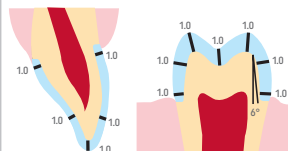
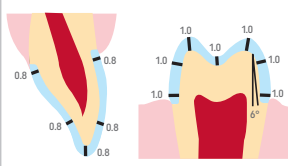
Minimum preparation depth for monolithic restorations



Monolithic anterior and posterior crowns



Monolithic bridge abutment crowns in the anterior and posterior region



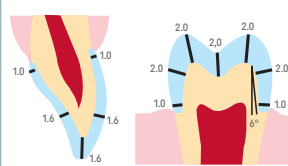
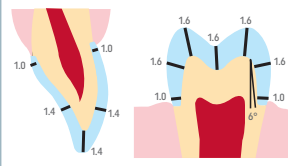
Minimum preparation depth for veneered restorations⁽⁴⁾



Veneered anterior and posterior crowns



Veneered bridge abutment crowns in the anterior and posterior region



Cementation of crowns and bridges

Cementation method	Adhesive	Self-adhesive/conventional
Cleaning	Cleaning with Al ₂ O ₃ (25–70 µm) at a maximum pressure of 1 bar (14.5 psi).	
	Cleaning with Ivoclean [®] after try-in	
Conditioning	60 s with Monobond [®] Plus	–
Cementation	Variolink [®] Esthetic	SpeedCEM [®] Plus ZirCAD [®] Cement



For more detailed information on cementation go to:
www.cementation-navigation.com

The range of available products may vary from country to country

Adjustments, polishing

Perform wet processing intraorally and dry processing extraorally.

	Zirconium oxide (ZrO ₂)	Lithium disilicate glass-ceramic (LS ₂) and zirconium oxide (ZrO ₂)
Large and small adjustments	Fine diamond 2) 3)	Extra-fine diamond 2) 3)
Polishing	2-step polishing with OptraGloss [®] 1)	2-step polishing with OptraGloss [®] 1)

¹ Maximum rotation speed 10 000 rpm

² Intraorally – Maximum rotation speed 15 000 rpm

³ Extraorally – Maximum rotation speed 20 000 rpm

Use fine diamonds for large and small adjustments. Smooth surfaces reduce plaque accumulation and the risk of abrasion for antagonists.

After extraoral or intraoral grinding, the contact points can be polished to a high gloss using OptraGloss[®].

CE 0123



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Rx only
For dental use only!

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