

Z-CAD® HD - Our Elder Zirconia

35% translucency combined with highest flexural strength. Experience in CAD/CAM. For all anterior and posterior restorations.



History in the making

Z-CAD® HD

The advantages of this translucency reduced, biocompatible high-performance zirconia speak for themselves. Discolored prepped teeth, metal or other posts and cores in the anterior and posterior regions can be successfully masked without compromising esthetics.

Bar constructions, long span width frameworks, supra structures, abutments, single crowns or 1-16 unit restorations, with Z-CAD® HD you are always on the safe side.

Primarily this material is recommended as framework followed by veneering. Screw or cement retained, your restoration will fulfill all your needs.

Z-CAD® HD

Our Elder Zirconia

Extremely well suited for crowns, bridges, abutments and bar constructions with large span widths. Metoxit AG explicitly points out, that the esthetic solution, is a morphology of the reduced shape of a natural tooth.

The milled and devised substructure is then colored with the relevant liquid and after sintering is completed using equivalent veneering materials. Alternatively, Zirconia press-ceramic can be utilized.



Z-CAD® HD is a high-performance zirconia which meets the ISO 6872:2019 standard class 5, it is available in white.

Typical strength of more than 1100 MPa (biaxial measurement).

Translucency of 35%. The established solution for daily business in the dental laboratory.

For customization of the white substructures we recommend Z-CAD® Deep liquid.

This is extremely well-suited for dipping or paint-on methods.

Metoxit Z-CAD® HD zirconia blanks

Art. No.	Product HD white	Geometry Ø 98,5mm*
405415	Z-CAD HD 98.5x10mm white	
405499	Z-CAD HD 98.5x12mm white	
405364	Z-CAD HD 98.5x14mm white	
405500	Z-CAD HD 98.5x16mm white	
405366	Z-CAD HD 98.5x18mm white	
405416	Z-CAD HD 98.5x20mm white	
405417	Z-CAD HD 98.5x25mm white	

www.metoxit.com

The Swiss Pioneer of Dental Zirconia
#metoxit

*Additional shapes and sizes
(e.g. cylindrical or Ø 95mm) on request.

Z-CAD® Deep liquid

These ready to use, water soluble, infiltration liquids are specifically to color the Metoxit AG white zirconia substructures. Regardless if dipping or paint-on methods are applied the coloring liquids emerge into the surface of unsintered substructures.

Z-CAD® Deep liquid dentin

Art. No.	Product Deep liquid A1 - D4	Content
411950	Z-CAD Deep liquid A1	100ml
411951	Z-CAD Deep liquid A2	100ml
411952	Z-CAD Deep liquid A3	100ml
411953	Z-CAD Deep liquid A3.5	100ml
411954	Z-CAD Deep liquid A4	100ml
411955	Z-CAD Deep liquid B1	100ml
411956	Z-CAD Deep liquid B2	100ml
411957	Z-CAD Deep liquid B3	100ml
411958	Z-CAD Deep liquid B4	100ml
411959	Z-CAD Deep liquid C1	100ml
411960	Z-CAD Deep liquid C2	100ml
411961	Z-CAD Deep liquid C3	100ml
411962	Z-CAD Deep liquid C4	100ml
411963	Z-CAD Deep liquid D2	100ml
411964	Z-CAD Deep liquid D3	100ml
411965	Z-CAD Deep liquid D4	100ml



Z-CAD® DEEP Liquid effect

Art. No.	Product Deep liquid effect	Content
411966	Z-CAD Deep liquid blue1	100ml
411967	Z-CAD Deep liquid blue2	100ml
411968	Z-CAD Deep liquid grey1	100ml
411969	Z-CAD Deep liquid grey2	100ml
411970	Z-CAD Deep liquid yellow	100ml
411971	Z-CAD Deep liquid orange	100ml
411972	Z-CAD Deep liquid brown	100ml
411973	Z-CAD Deep liquid pink	100ml

This perfectly tuned system of Z-CAD® Deep liquids offers easy handling and a high reproducibility for to be colored restorations.

The Z-CAD® Deep liquid set is comprised of the 16 dentin colors, according to the *Vita classical A1-D4 color system.

We also offer a Z-CAD® Deep liquid "effect set" which is comprised of eight colors for individualization.

Z-CAD® DEEP Liquid Sets

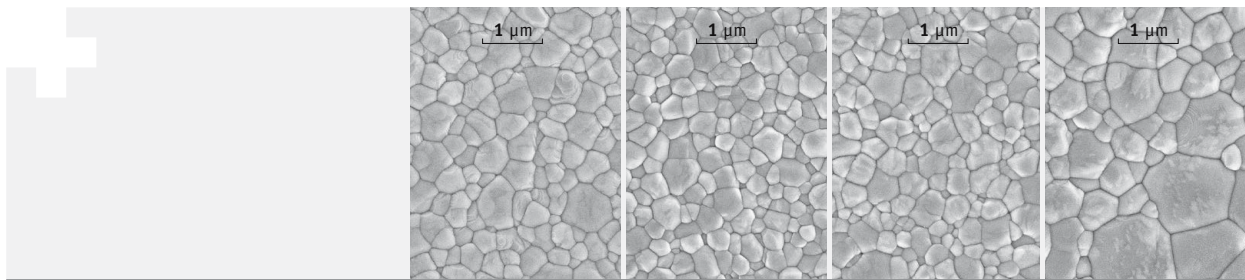
Art. No.	Product Deep liquid set	Content
411974	Z-CAD Deep liquid dentin set	16x 100ml
411975	Z-CAD Deep liquid effect set	8x 100ml

*VITA classical A1 - D4® is a registered trademark of VITA Zahnfabrik H. Rauter GmbH & Co. KG in Bad Säckingen.

SWISS MADE

Z-CAD® HD Our Elder Zirconia
Bending strength > 1100Mpa
ISO 6872:2019 Class 5

Z-CAD® Materials



	Units	Z-CAD® HD	Z-CAD® HTL	Z-CAD® One4All	Z-CAD® smile
Chemical Composition					
ZrO ₂ + HfO ₂ + Y ₂ O ₃	wt%	> 99.5	> 99.5	> 99.5	> 99.5
Y ₂ O ₃	wt%	5.2	5.2	6.9	9.3
Al ₂ O ₃	wt%	0.25	0.05	0.05	0.05
Sum of all other oxides	wt%	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Properties					
Density	g/cm ³	6.08	6.08	6.06	6.04
Bending strength (biaxial)	MPa	> 1100	> 1100	> 1000	> 610
Grain size	µm	< 0.4	< 0.4	< 0.5	< 0.6
Fracture Toughness K _{1c}	MPa√m	5	5	5	3.5
Hardness HV ₁₀	-	1250	1250	1250	1250
Translucency (1mm, D65)	%	35	41	45	49
Coefficient of thermal expansion (CTE)	10 ⁻⁶ /K	11.2	11.2	10.8	10.6
Thermal conductivity	W/mK	2.5	2.5	2.5	2.5
Solubility (acetic acid)	µg/cm ²	≤ 100	≤ 100	≤ 100	≤ 100
Radioactivity	Bq/kg	≤ 200	≤ 200	≤ 200	≤ 200
Indications					
		bar constructions, discoloration, abutments, frames...	bar constructions Suprastructures, frames, bridges...	inlay, onlay, veneer, crowns, bridges...	inlay, onlay, veneer, crowns, 3-unit bridges...
Normative specification					
		dental restorations according to ISO 6872:2019 class 5	dental restorations according to ISO 6872:2019 class 5	dental restorations according to ISO 6872:2019 class 5	dental restorations according to ISO 6872:2019 class 4

All information and data correspond to the present state of our knowledge concerning properties and applications. For more specific product information, see our instructions for use. If you do not comply with the instructions for use no guarantee for the specified material properties is taken.