



Multilayers of:
Shade, Translucence & Strength

XTCERA ZIRCONIA FAMILY	3D MULTILAYER
Transmittance (Translucency)	55% (Incisal) - 43% (Cervical)
Available Shades	VITA Classic 16 Shades A1-D4
Powder	High quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	INCISAL ≥750MPa - CERVICAL ≥1100MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	≥6.0g/cm ³
Vickers Hardness	1250HV
Chemical Solubility	<100μg/cm ²
CTE	9.91x10 K
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94.0%
Y ₂ O ₃	4.5-6.0wt%
Al ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%

Layer Transitions					
Layer	Proportion	Vickers Hardness (HV)	Strength (MPa)	Color	Translucency
Layer 1 (Incisal)	30%	≥1250	≥750MPa	Light	55%
Layer 2	15%		↓	↓	↓
Layer 3	15%		↓	↓	↓
Layer 4	20%		↓	↓	↓
Layer 5 (Cervical)	20%		≤1250MPa	Dark	43%



Multilayers of:
Translucence & Strength

XTCERA ZIRCONIA FAMILY	3D White (MODE 3D)
Transmittance (Translucency)	55% (Incisal) - 43% (Cervical)
Available Shades	Color Liquids
Powder	High quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	INCISAL ≥750MPa - CERVICAL ≥1100MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	≥6.0g/cm ³
Vickers Hardness	1250HV
Chemical Solubility	<100μg/cm ²
CTE	9.91x10 K
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94.0%
Y ₂ O ₃	4.5-6.0wt%
Al ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%

Layer Transitions					
Layer	Proportion	Vickers Hardness (HV)	Strength (MPa)	Color	Translucency
Layer 1 (Incisal)	30%	≥1250	≥750MPa	Color Liquid s VITA 16	55%
Layer 2	15%		↓		↓
Layer 3	15%		↓		↓
Layer 4	20%		↓		↓
Layer 5 (Cervical)	20%		≤1250MPa		43%



Multilayer Shaded Discs

XTCERA ZIRCONIA FAMILY	SHT Multilayer
Transmittance (Translucency)	47%
Available Shades	VITA Classic 16 Shades A1-D4
Powder	High quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	≥1050MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	≥6.0g/cm ³
Vickers Hardness	1250HV
Chemical Solubility	<100μg/cm ²
CTE	9.91x10 K
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94.0%
Y ₂ O ₃	4.5-6.0wt%
AL ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%

Color Transition					
Layer	Proportion	Vickers Hardness (HV)	Strength (MPa)	Color	Translucency
Layer 1 (Incisal)	30%	≥1250	≥1050	Light	47%
Layer 2	15%			↓	
Layer 3	15%			↓	
Layer 4	20%			↓	
Layer 5 (Cervical)	20%			Dark	



Mono Pre-Shaded Disc

XTCERA ZIRCONIA FAMILY	SHT Pre-Shaded
Transmittance (Translucency)	47%
Available Shades	VITA Classic 16 Shades A1-D4
Powder	High Quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	≥900MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	6.05±0.05g/cm ³
Vickers Hardness	1293HV
Chemical Solubility	63μg/cm ²
CTE	10 +/- 0.5
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94.0%
Y ₂ O ₃	4.5-6.0wt%
AL ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%



White Un-shaded Disc

XTCERA ZIRCONIA FAMILY	SHT White
Transmittance (Translucency)	47%
Available Shades	Color Liquids
Powder	High quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	≥1050MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	≥6.03g/cm ³
Vickers Hardness	1293HV
Chemical Solubility	63μg/cm ²
CTE	10 +/- 0.5
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94%
Y ₂ O ₃	4.5-9.5wt%
AL ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%



White Un-shaded Disc

XTCERA ZIRCONIA FAMILY	TT White (TT-Plus)
Transmittance (Translucency)	55%
Available Shades	Color Liquids
Powder	High-Quality Chinese
Manufacturing Type	Axial Press->Isostatic Press->Sintering
Physical Property	Physical Property
Bending Strength	≥750MPa
Pre-Sintered Density	3.06g/cm ³
Sintered Density	≥6.01g/cm ³
Vickers Hardness	1250HV
Chemical Solubility	<61μg/cm ²
CTE	10 +/- 0.5
Thermal Shock Resistance (YY0301-1998)	Complied
Chemical Composition	Chemical Composition
ZrO ₂ +HfO ₂	>94.0%
Y ₂ O ₃	4.5-6.0wt%
AL ₂ O ₃	<0.5wt%
Other Oxides	< 0.5wt%

Xtcera Zirconia Indications

Indication	Model	3D Multilayer	3D White	TT Multilayer	SHT Multilayer	TT White TT Preshaded	SHT White SHT Preshaded	HT White
Aesthetic Full Contour Anterior		✓	✓	✓	○	✓	○	○
Full Contour Posterior		✓	✓	✓	✓	✓	✓	✓
Coping		✓	✓	✓	✓	✓	✓	✓
Coping Bridge (3-4 Units)		✓	✓	○	✓	○	✓	✓
Crown & Bridge (3-4 Units)		✓	✓	○	✓	○	✓	✓
Coping Bridge (5-7 Units)		○	○	✗	✓	✗	✓	✓
Crown & Bridge (5-7 Units)		✓	✓	✗	✓	✗	✓	✓
Coping Bridge Full Arch		○	○	✗	○	✗	✓	✓
Full Arch Full Contour		○	✓	✗	○	✗	✓	✓
Post & Core		✓	✓	✓	✓	✓	✓	✓
Inlay / Onlay		✓	✓	✓	✓	✓	✓	✓
Veneer		✓	✓	✓	○	✓	○	○
Abutment		✓	✓	✓	✓	✓	✓	✓
Telescope		✓	✓	✓	✓	✓	✓	✓
Maryland Bridge		✓	✓	○	○	○	✓	✓
Implant Bridge		○	○	✗	○	✗	✓	✓

Suggested: ✓ Non-suggested: ○ Contradiction: ✗

Chart 1. Crowns and bridges (5 units OR LESS) (HT/SHT/SHT PRE-SHADE/SHT MULTILAYER)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	15°C/MIN	900°C	5 MIN
Stage 2	5°C/MIN	1300°C	0 MIN
Stage 3	5°C/MIN	1530°C	120 MIN
Stage 4	10°C/MIN	300°C	0 MIN

Chart 2. Bridges (5 units OR MORE) (HT/SHT/SHT PRE-SHADE/SHT MULTILAYER)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	8°C/MIN	900°C	10 MIN
Stage 2	3°C/MIN	1300°C	0 MIN
Stage 3	5°C/MIN	1530°C	120 MIN
Stage 4	8°C/MIN	300°C	0 MIN

Chart 2. FULL ARCH - (HT/SHT/SHT PRE-SHADE/SHT MULTILAYER)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	3°C/MIN	900°C	30 MIN
Stage 2	2°C/MIN	1300°C	0 MIN
Stage 3	2°C/MIN	1530°C	120 MIN
Stage 4	2°C/MIN	300°C	0 MIN

Chart 3. Crowns and bridges (3 units OR LESS) (TT/TTML)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	10°C/MIN	900°C	8 MIN
Stage 2	3°C/MIN	1300°C	0 MIN
Stage 3	5°C/MIN	1450°C	120 MIN
Stage 4	10°C/MIN	300°C	0 MIN

Chart 4. Crowns and bridges (3D ML/3D White)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	8°C/MIN	900°C	10 MIN
Stage 2	3°C/MIN	1300°C	0 MIN
Stage 3	5°C/MIN	1500°C	120 MIN
Stage 4	8°C/MIN	300°C	0 MIN

Note: While Xtcera sintering instructions recommend an opening temperature of 800°C, we at Zubler USA have opted for a more cautious sintering strategy. Please be aware that sintering times, temperatures and heat rates can vary from oven to oven.

SPECIAL FULL ARCH SINTERING

(NO SUPPORT STRUCTURE FOR USE WITH MIHM VOGT OVENS AND SINTERGRANULATE IN A COVERED SINTERING DISH – For: (HT/SHT/SHT PRE-SHADE/SHT MULTILAYER)

STAGE	HEAT RATE (°C/MIN)	TARGET TEMPERATURE (°C)	HOLD TIME (MIN)
Stage 1	2°C/MIN	150°C	60 MIN
Stage 2	2°C/MIN	900°C	30 MIN
Stage 3	2°C/MIN	1550°C	120 MIN
Stage 4	30°C/MIN	400°C	0 MIN

