Aidite

3D pro·zir®

— More than nature —

Find **natural shade gradient, translucency and strength** in 3D Pro zir

Aidite

Everyone with a healthy and beautiful smile

Strength and Translucency »

3D Pro zir is fabricated with the most advanced production processes at Aidite, producing a layerless, natural shade gradient, with optimal strength and translucency, transitioning from Cervical to Incisal areas of the restoration.

With a maximum flexural strength of 1100 MPa, 3D Pro zir ensures aesthetic results while being suitable for all indications from single crowns to 14-unit bridge structures.

Flexural Strength
1100 MPa

Incisal layer
Translucency **57**%

Cervical layer
Translucency **43**%

Properties »

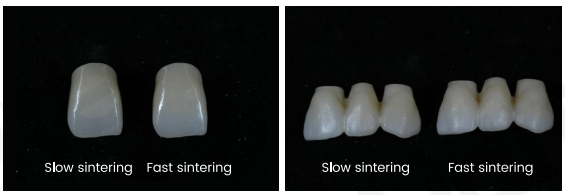
Physical properties

Sintered Density	⩾6.0g/cm^3
Coefficient of thermal expansion K^{-1}(25~500°C)	(10.5±1.0) x10^{-6}
Surface monoclinic phase content after accelerated aging	＜5%
Chemical solubility	⩽100μg/cm^2

Chemical properties

ZrO_2	90%~95%
Y_2O_3	4%~10%
Al_2O_3	⩽0.5%
Other oxides	＜0.5%

Sintering Cycles

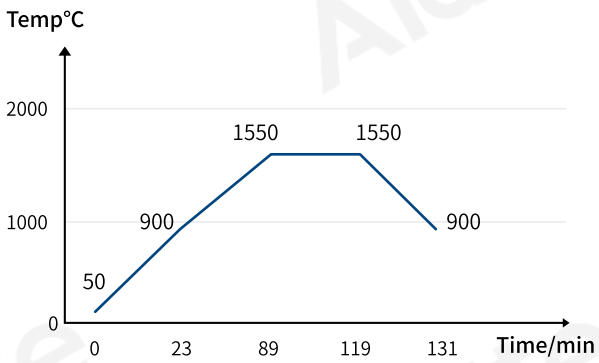


The 3D Pro zir series enables high-performance fast sintering, with a 2-hour sintering cycle or longer conventional cycles for larger spans. This enables shorter production times, reduced costs, and faster delivery times.

2 hours fast sintering cycle

Single unit& Bridge up to 3 units

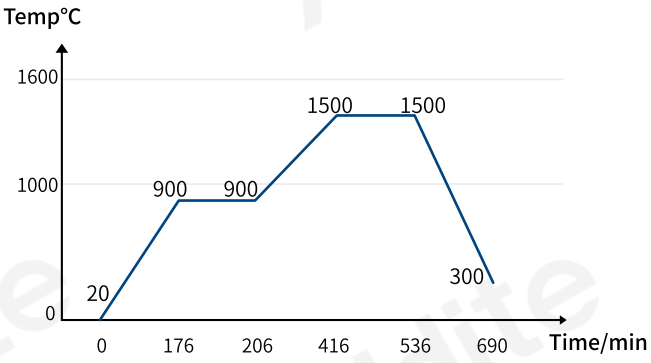
Start temp	Phase 1 heating rate	Phase 1 Maximum temp	Phase 2 heating rate	Phase 2 Maximum temp	Holding time	Cooling rate	Cooling to
20°C	52°C/min	1200°C	6°C/min	1550°C	30min	55°C/min	900°C



3D Pro zir also supports sintering cycle for long span bridges.

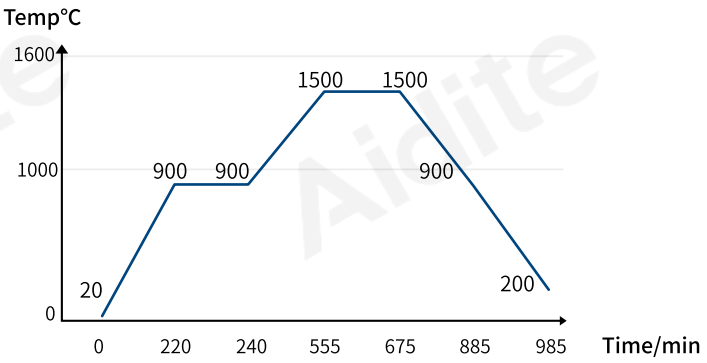
4-6 units

Start temp	Phase 1 heating rate	Phase 1 Maximum temp	Holding time	Phase 2 heating rate	Phase 2 Maximum temp	Holding time	Cooling rate	Cooling to
20°C	5°C/min	900°C	30min	3°C/min	1500°C	120min	8°C/min	300°C



7 units and above

Start temp	Phase 1 heating rate	Phase 1 Maximum temp	Holding time	Phase 2 heating rate	Phase 2 Maximum temp	Holding time	Cooling rate	Cooling to	Cooling rate	Cooling to
20°C	5°C/min	900°C	20min	2°C/min	1500°C	120min	3°C/min	900°C	7°C/min	200°C



*As always, the sintering temperatures and times indicated are guidelines only and for different sintering furnaces, depending on their condition and calibration, these cycles will need to be adjusted accordingly. We recommend you run a trial sintering to find the right cycle for your furnace.

Indications for use

Recommended


Anterior full crown


Anterior full crown bridge


Posterior full crown


Posterior full crown bridge

Applicable


Inlay/Onlay


Veneer


Screw-retained bridge

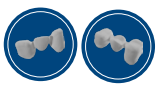

Full arch long bridge

Applicable but not recommended


Anterior /Posterior cutback crown

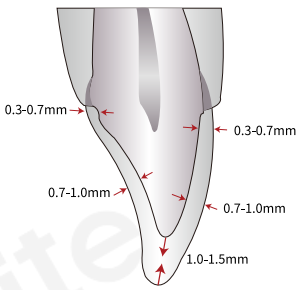

Anterior /Posterior cutback crown bridge


Anterior /Posterior coping

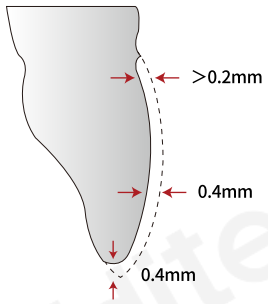

Anterior /Posterior coping bridge

Note: The above crown and bridge restorations all include implant restorations.

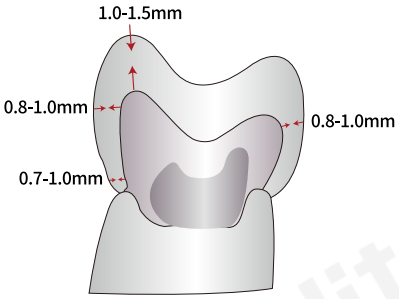
Ideal design and preparation guidance



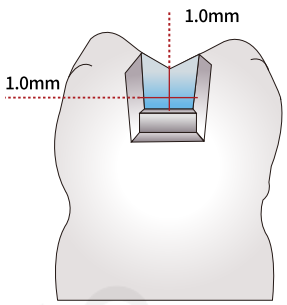
Anterior Crown



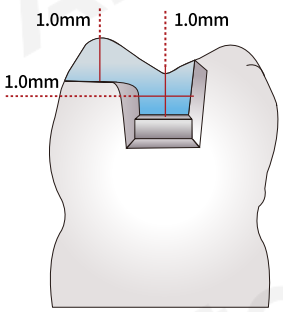
Veneer



Posterior Crown



Inlay



Onlay

See table for recommended ideal design parameters

Bridge

Recommended ideal design parameters

Type of restoration		Crown	Bridge
Anterior	Axial wall thickness Occlusal thickness	⩾0.7 mm ⩾1.0 mm	⩾0.8 mm ⩾1.0 mm
	Bridge connectors up to 3 units 4 units and above	- -	⩾9mm² ⩾9mm²
Posterior	Axial wall thickness Occlusal thickness	⩾0.8 mm ⩾1.0 mm	⩾1.0 mm ⩾1.0 mm
	Bridge connectors up to 3 units 4 units and above	- -	⩾12mm² ⩾20mm²

Shade and dimension »

3D Pro zir is available in 16shades of the classical shade guide, 3 bleach shades OM1/OM2/OM3, and 6 neutral shades 1M1/4M2/4M3/5M1/5M2/5M3. For further personalized characterization, Biomic Stain&Glaze can be used. 3D Pro zir streamlines the process of achieving high aesthetics.

Disc system options

Standard open system	Girrbach system	Zirkonzahn system
D98*12 (H)	AG71*12 (H)	D95*12 (H)
D98*14 (H)	AG71*14 (H)	D95*14 (H)
D98*16 (H)	AG71*16 (H)	D95*16 (H)
D98*18 (H)	AG71*18 (H)	D95*18 (H)
D98*20 (H)	AG71*20 (H)	D95*20 (H)
D98*22 (H)	***	D95*22 (H)
D98*25 (H)	AG71*25 (H)	D95*25 (H)

Block for chairside

Sirona system					
20*15*14	20*15*19	40*15*14	40*15*19	55*15.5*19	65*25*22

*Other sizes can be customised to meet your special requirements.

[Digital work flow »

3D Pro zir is one incredible material, which can be used in the above systems, but it is also part of an entire digital workflow. From the initial intraoral scan right through to the final restoration, Aidite has validated workflows with equipment and materials for the whole process. Shorter production times, higher quality, full technical and engineering support, through our dealers and ourselves, 24/7 worldwide. With 3D Pro zir, you are not just purchasing any ordinary zirconia disc, but investing in a part of a wider dedicated system, benefitting the whole dental team and their patients. Dentists are requesting a 3D Pro zir restoration, once they see the difference.

[Clinical case »

Kleanthis Manolakis

PhD, Albert-Ludwigs-University Freiburg, Germany / Department of Oral and Maxillofacial Surgery (Head: Prof. Dr. Dr. W. Schilli)

Clinical case »

Roberto Cabreriza

Laboratory World For Dentist

3D Pro zir implant case

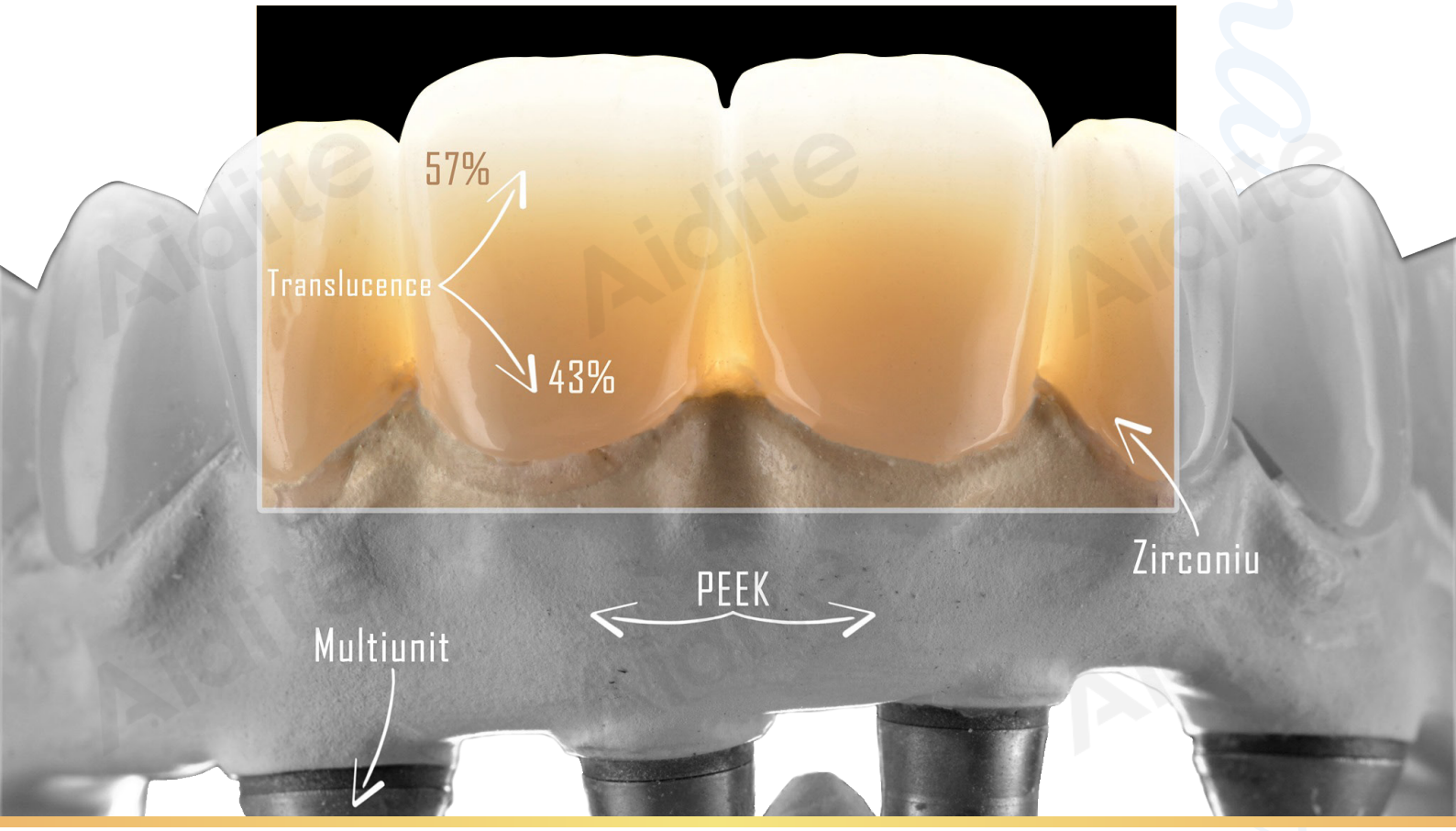
Roberto Cabrerizo
World for dentist

Clinical case »

Gabriel Ticulescu

Dental Tehnician, Lucian Blaga University Sibiu | 2006 - 2009

Dental Tehnician and Co-Owner, 3DSmartDent Sibiu | 2009 - Present



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