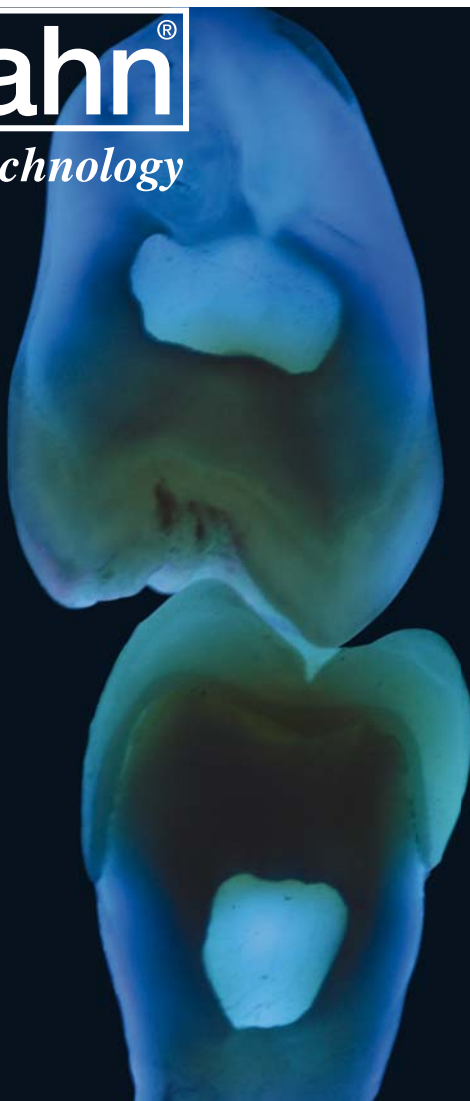


Zirkonzahn®

Human Zirconium Technology



ICE ZIRCONIA CERAMIC

The Love of Perfection



The Love of Perfection

Copying nature to perfection is always an exciting challenge. The ingredients for success are talent, tireless effort and personal ambition in wanting to create best possible outcomes. Finding traits as these in combination takes a special kind of gifted person.

Aldo Zilio is one who creates master pieces through uncompromising discipline and hard work. His exquisite restorations have earned him much respect as a master ceramist worldwide.

Aldo Zilio





Aldo Zilio

Aldo Zilio's Curriculum Vitae

- studied dental science in Mestrino Padua/Italy 1974 to 1978
- self employed since 1982
- ongoing studies through courses with renown opinion leaders of the profession
- founding member of “Dental Excellence – International Laboratory Group”
- lecturer A.R.C.O. (Associazione di Relatori della Cultura Odontotecnica) since 2003
- lecturer of prosthetics at University of Chieti during his study years of 2004/2005 and 2005/2006
- lecturer locally and abroad at dental congress and other meetings speaking on the subjects of communication, aesthetics, digital photography, press-ceramics to metal and ceramic layering techniques on zirconia.
- Numerous articles in various well known dental publications.



Creating beauty demands artistic touch, know-how and perfection.

In order to become an expert the aspiring ceramist needs the ability to conjure up mental pictures of what he wants to

create, imagine shapes, colours and aesthetic outcomes – with the precision of a forger of bank notes.

ICE Zirconia Ceramic Assortment

Various assortments contain all materials required for the reproduction of natural and aesthetic looking restorations.



CERAMIC MATERIALS AVAILABLE

- 16 classic-V shades
- 4 enamel materials
- 17 modifiers for individual characterization
- 6 different tissue shades
- 16 Dentin+ shades
- 21 Dynamik Dentin and intensive shades

FIRING CHART/PROGRAM

Start temp	400° C
Drying time	2 min
Closing time	4 min
Heat rise	25- 55 degrees/min
Wash fire	920° C – 2 min hold
Biscuit (1st) fire	820° C (+/- 10° C)
Correction fire	820° C (or up to 15° C less)
Glaze fire	820° C (or up to 15° C less)
Holding time	1- 2 min
Vacuum on	400° C
Vacuum off	820° C (+/- 10° C)
Vacuum level	max
Cooling	1 min (slow cool recommended!)

Firing characteristics: Not all furnaces operate the same. A furnace can give false temperature read-out if thermo-couple is contaminated with metal ions. Despite positive silver-testing at 780° C actual temperatures may still fluctuate in case of contamination. For this reason we mention (+/- 10° C) above.

Other temperature fluctuations can occur because zirconia is a slow heat conductor.

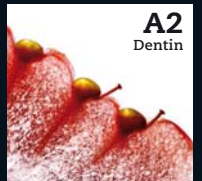
Bulky framework should be held on final temp 2 minutes minimum to ensure a thorough ceramic bake through to the core. Modify firing temperatures to suit individual aesthetic requirements.



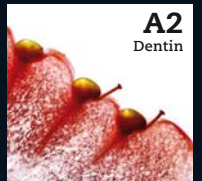
ANTERIOR EXAMPLE



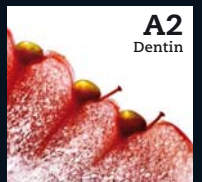
1. Frame contoured & ready for bonding.



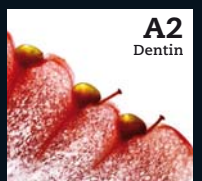
2. Aluminium oxide: 50- 100 micron at 4- 5 bar.
Blasting interproximals only is sufficient.



3. Apply wash layer thinly with full cover
using normal dentin of prescribed shade.

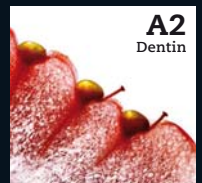


4. Fire wash at 920° C (=100° C above
regular firing temp for dentin) –
Minimum hold 2 min.

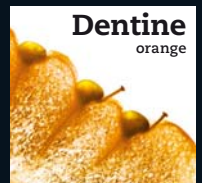




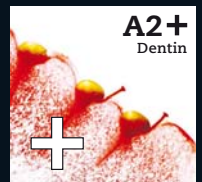
5. Wash bake complete – frame ready for next step.



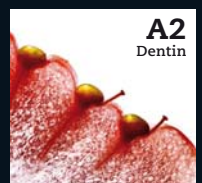
6. Cervical area: Mix 1/3 Dentin Orange into regular dentin.



7. Specific areas are built up with Dentin+. For single anterior crowns use Dentin+ undiluted.

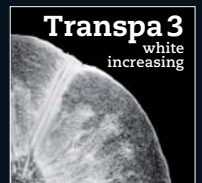


8. Complete dentin build up - contour reduced in size.





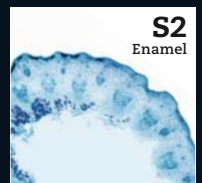
9. Lighter zones increase vitality.



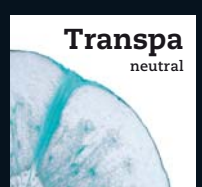
10. Transpa Blue over interproximal ridges.



11. Lateral segmental build up with S2 enamel.



12. The incisal area is framed with translucent material.





13. The bridge is fired at 820° C (+/- 10° C) – Dentin Orange lifts the chroma in the cervical and interproximal area.



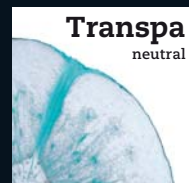
14. A little normal dentin is added over the cervical.



15. Final contour corrections are carried out with Transpa.



16. T3 creates the incisal 'halo' effect.





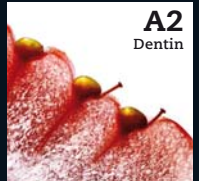
POSTERIOR EXAMPLE



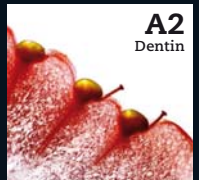
1. Dentin Orange undiluted for the occlusal centre.



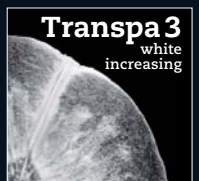
2. Dentin A2 mixed with 1/3 Dentin Orange or Dentin Brown.



3. Complete regular dentin build up - contour reduced in size.

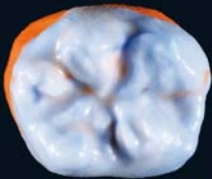


4. Lighter zones increase vitality.





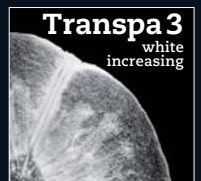
5. Targeted application of Transpa Blue creates life-like transparent effects.



6. Complete shape with S3 enamel.



7. T3 produces the nice whitish opalescent appearance often seen in natural molars.



Case study: ICE Zirconia Ceramic

1.



2.



1. The original situation: Including 2 metal abutments which could not be replaced.
2. The other four implants with new custom zirconia abutments.

3.



4.



3. A full set up is carried out over the abutments.
4. The set up is duplicated in shrinkage-free "Frame" resin.

5.



6.



5. and 6. The milled zirconia frame ready for colouring and sintering.

7.



8.



7. and 8. The sintered frame: Instant fit without adjustments.

9.



10.



9. and 10. A wash bake is applied first using various dentin shades and also tissue coloured ceramic.
(Wash bake = 100°C above regular firing temperature for dentin material.
Hold time: 3 minutes.
Heat rise: 35°C/min)

11.



12.



11. and 12. Step-by-step veneer porcelain build up with "ICE Zirconia Ceramics" material.

13.



14.



13. and 14. Tissue-coloured porcelain „ICE Zirconia Ceramic Tissue“ is fired together with the dentine build up.

15.



16.



15. and 16. The finished restoration ready for issue.



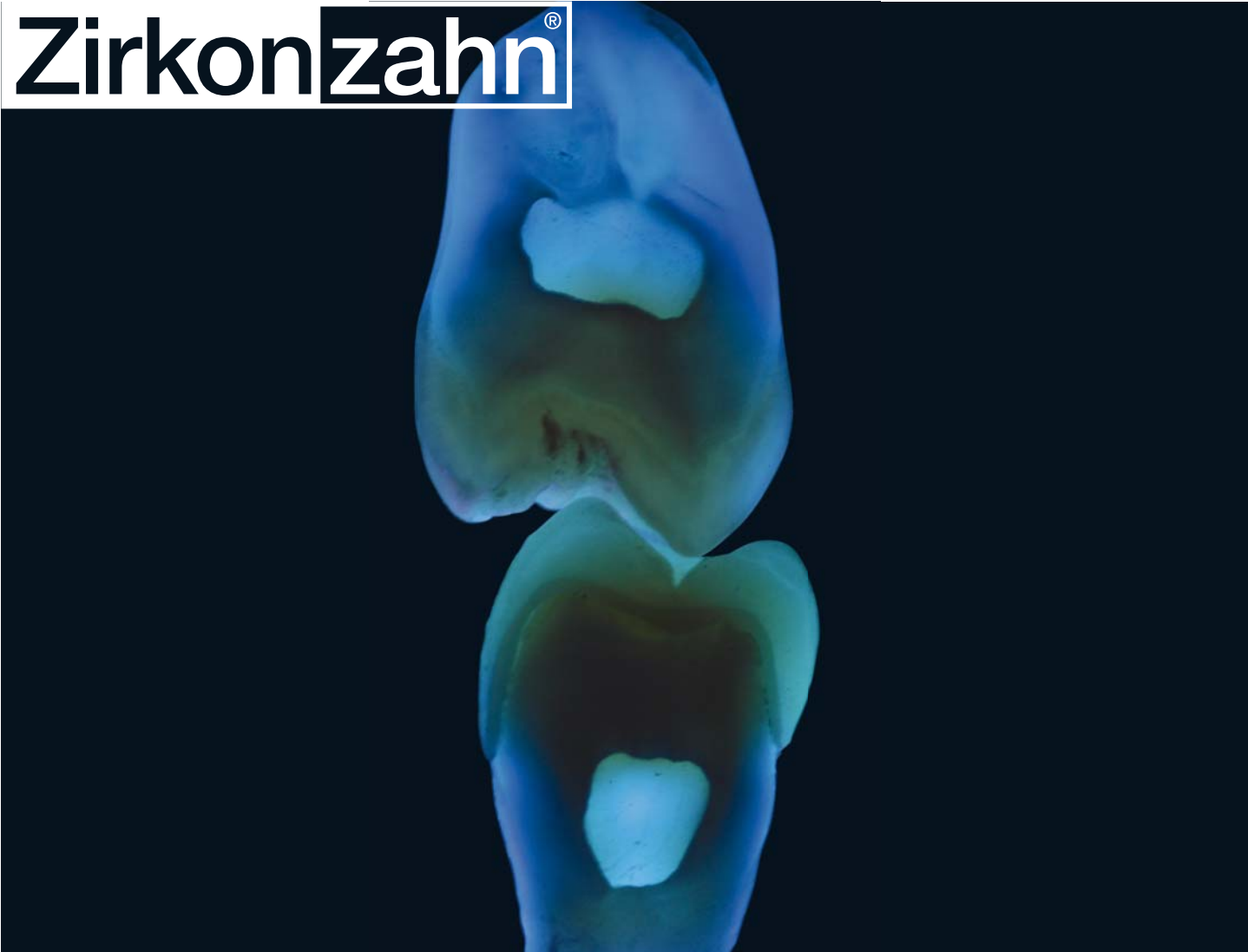
Finished work
Aldo Zilio, Italy

Impressions...





Zirkonzahn®



ICE ZIRCONIA CERAMIC

Zirkonzahn World Wide - An der Ahr 7 - 39030 Gais/South Tirol (Italy)

T +39 0474 066 680 - F +39 0474 066 661 - www.zirkonzahn.com - info@zirkonzahn.com



ENGLISH



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