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PANAVIA™ and KATANA™ Zirconia Case Study Spotlight

# Custom Abutment Implant Cementation Technique with PANAVIA™ SA Cement Universal

## TECHNICIAN

**Jean Chiha CDT,**
North Star Milling & Lab,
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Mr. Chiha is the Owner of North Star Dental Laboratory and Milling Center, Santa Ana, CA, and has served as President of the Dental Labo Owners Association of California since 2013. He is a 1985 graduate of Institut Dento Technic, a private dental technology school in France.

Mr. Chiha lectures internationally on dental communication and case planning. Jean lectures around the world on a variety of topics and has carved out a niche with his extensive knowledge of zirconia. Affectionately referred to as “Mr. Katana” due to his involvement in the creation of the material.

Images & Restorations by
Jean Chiha CDT,

## CASE STUDY BREAKDOWN

By using PANAVIA™ SA Cement Universal and its proprietary dual-monomer technology, you can now simplify the bonding of restoration to implant abutments without the use of separate primers or silane. Independent research has confirmed this new dual-monomer technology does not sacrifice adhesion or durability on glass-based ceramics or zirconia. The technique, in this case study, is for custom fabricated abutment & KATANA™ Zirconia YML crown, however, the basic technique on the treatment of the abutment and restoration may be used with any implant restoration combination as long as the proper surface treatments for type of material is followed.

MDP MONOMER Chemical Affinity Long Carbon-chain Silane Coupling Agent LCSi Innovating for your success

## PRODUCTS USED

**PANAVIA™ SA Cement Universal**
is the first universal adhesive, self-adhesive resin cement with dual-monomer technology.
**3 Shades**: White, Translucent, Universal (A2)
**Formulations**: Handmix and Automix


**KATANA™ Cleaner**
is a non-abrasive dental cleaning agent Indicated for the bonding surfaces of prosthetic restorations as well as dentin, enamel, root canals, tooth abutments & Implant abutments.


**KATANA™ Zirconia YML**
is a new definition of zirconia in dentistry. This product is characterized by a unique raw material combination of highly translucent zirconia with high strength, which are integrated together by an advanced manufacturing technology.

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For more information about the Kuraray products featured in this case study, visit us at: kuraraydental.com

## Initial Fit of Abutment & Restoration

Basic technique on the treatment of the abutment and restoration.

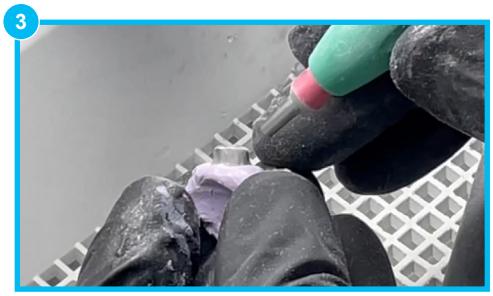
1

**Check Initial Fit of Abutment & Restoration:** Abutment & crown margins should be checked to ensure proper fit.

2

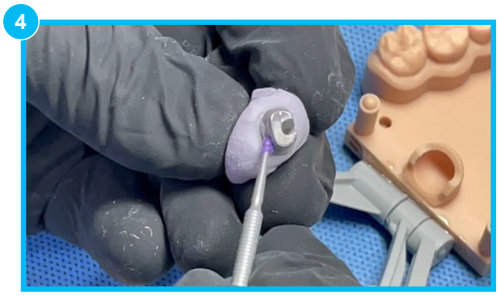
**Protect base of implant with putty or light-cure block-out resin**
The base of the implant should be covered so that it is not air abraded accidentally.

3



Abrade titanium abutment with 50 µm alumina oxide powder.

4



**Clean abutment with KATANA™ Cleaner:** Apply KATANA Cleaner by rubbing each area for 10 seconds.

KATANA™ Cleaner is a universal cleaner that is indicated to clean metal, zirconia & glass-based restorations. It is also an intra oral cleaner that may be used on dentin and enamel.

## Treatment of KATANA™ Zirconia Restoration Workflow

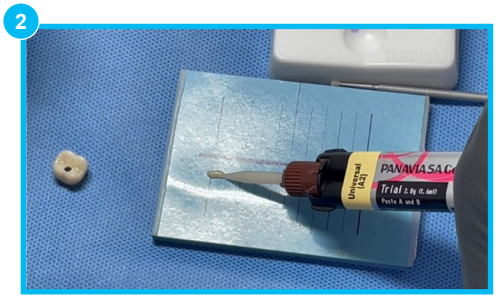
Bonding to zirconia has been proven to be durable in research going back to the 1990's with the original MDP adhesive monomer in the PANAVIA™ resin cements. The three requirements to bonding zirconia are:

1. Air abrade zirconia with 50 µm alumina oxide powder.
2. Clean zirconia
3. Apply an MDP-Based Primer or resin cement. PANAVIA™ SA Cement Universal contains the original MDP that was developed & patented in 1981 by Kuraray Dental.

1

Air abrade KATANA™ Zirconia at 14-58 psi.

2




Dispense & mix PANAVIA™ SA Cement Universal (it is available in automix or handmix formulations)

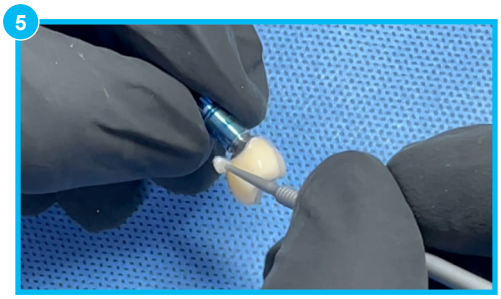
3

Apply PANAVIA™ SA Cement Universal to the abutment or inside the crown.

4

Seat restoration on abutment.

5



Remove excess resin with a dry micro-applicator or brush.

6

You may light-cure the margins after cleaning up all excess resin. If you fully cure excess resin, It can be difficult to remove. If difficult to remove, change curing time or distance with your light.

7

Leave restoration on abutment to self-cure fully for approximately 10 minutes at room temperature.

12

Final check of custom abutment KATANA™ Zirconia YML crown on model.