STEP BY STEP
Bonding procedure

DIGITAL WORKFLOW OF THE INTRAORAL BONDING PROCEDURE

Elos has performed a study on the cementation process looking at a variety of parameters and how they affect the retention strength. The findings of the study are used in this guide.

This procedure describe the workflow for intra oral bonding to achieve a passive fit with Elos Accurate® Hybrid Base™ Non-Engaging.

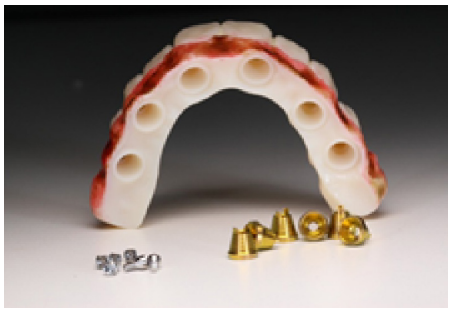
We have used Panavia V5 from Kuraray Noritake in this guide which is approved for Elos Accurate Hybrid Bases for both the EU and US market.

Another approved bonding agent for intra oral cementation is RelyX™ from 3M.

Key takeaways from study:

Do not use steam to clean either restoration or Hybrid base.

Do not blast the Hybrid Base.



1. Blast the internal geometry of the milled restoration connecting to the hybrid bases with 50 µm aluminum oxide (Al2O3) and with a pressure of 2 bar.

Sandblasting of the hybrid base is not allowed as it might reduce retention of the bonding.

Gently remove residue with oil free compressed air.

2. Either clean with IPA or Katana

Cleaning: IsoPropyl Alcohol (IPA).

Clean the surface of the Hybrid Base and the restoration thoroughly with IPA 99% alcohol.

Do not use steam to clean the Hybrid Bases or restoration as it will reduce the retention of the bonding.

Handle with gloves from this point.

3. Cleaning: KATANA™ Cleaner.

Rub surfaces on Hybrid Base and restoration for 10 sec. rinse with clean water or dry gently with oil free compressed air.

Do not use steam to clean the Hybrid Bases or restoration as it will reduce the retention of the bonding.

Handle with gloves from this point.

4. Position the Guide Grip™ antennas in the restoration so that the U-shape aligns with the screw channel for correct access for the Elos Accurate® Hexalobular™ screw.

The offset is preset in the Elos Accurate Library to achieve an average gap of 40µm.

5. Install the monolithic zirconia bridge with the Elos Accurate Hybrid Base Non-Engaging on the abutments, torque about 10Ncm (hand-torque).

6. Apply the CLEARFIL™ CERAMIC PRIMER PLUS in the zirconia bridge restoration.

Let it air dry or gently dry with oil free compressed air.

Elos Medtech • Engvej 33 • DK-3330 Gorlose • Denmark
+45 48 21 64 99 • dentalsupport@elosmedtech.com • www.elosdental.com

7. Cover and block the screw head to protect the screw against bonding cement residue entering the screwdriver's mount. We used thread tape.
NOTE: If hybrid base surface is contaminated with saliva, clean the surface with KATANA™ Cleaner (see #3) before CLEARFIL™ CERAMIC PRIMER PLUS is applied.

8. Apply CLEARFIL™ CERAMIC PRIMER PLUS for the entire hybrid base surface.

Let it air dry.

9. Fully torque the screws in the hybrid bases. If there is any uncertainty Verify the seating, with an x-ray.

10. CLEARFIL™ CERAMIC PRIMER PLUS and Panavia V5 paste from Kuraray Noritake.

Panavia V5 paste is available in 5 different colors. The opaque paste is self-curing and the other four are double curing.

11. Apply the bonding cement and spread it with a brush and make sure that all surfaces of the hybrid bases are covered.

12. Place the bridge on the hybrid bases covered with bonding cement.

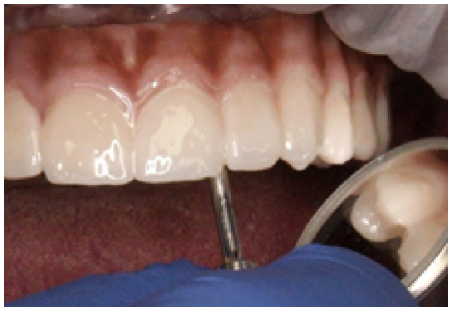
Self-Cured: Use pressure (15N) on bridge during curing time. Wait 3 minutes before proceeding to the next step (#13).

Light cure: Cure the excess bonding cement for 3-5 seconds, remove excess cement from the hybrid bases. Then continue with light curing for 20 seconds per surface.

13. Remove the thread tape with a sharp instrument (explorer).

14. Unscrew the bridge, the hybrid bases are now fully cured in the bridge. The bridge with its hybrid bases is now one unit and intraoral cementation will facilitate the conditions for a passive fit.

15. Ensure that all excess bonding cement is removed before restoration is permanently installed both from the restoration and (patient.)



16. Screw the bridge to the final torque according to the implant manufacturer's recommendations.

17. The bridge is mounted without tension on the dental implants.

18. Find the study at elosdental.com

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