

STEP BY STEP

Bonding procedure

DIGITAL WORKFLOW FOR BONDING ON A PLASTER MODEL

Elos has performed a study on the bonding 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 bonding on a plaster model 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.

Other approved bonding agents are: Multilink® Hybrid Abutment from Ivoclar and 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 cementation.

Gently remove residue with oil free compressed air.



2. Before bonding, clean the surface of the Hybrid Base and the restoration thoroughly with either IsoPropyl Alcohol (IPA) 99% alcohol or KATANA™ Cleaner.

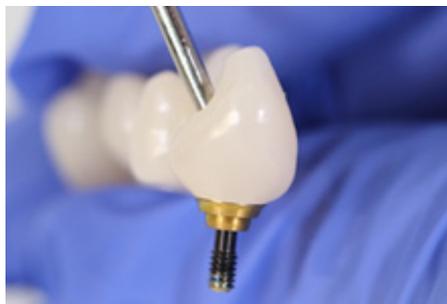
KATANA™ Cleaner: Rub surfaces on Hybrid Base and restoration for 10 sec. rinse with clean water, dry gently with oil free compressed air. Handle with gloves from this point.

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



3. 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.



4. Check the screw channel:

Test that the screw easily passes in and out of the screw channel. Also check with the screwdriver (it is the same connection on the screwdriver that the dentist will use in the clinic).

The Guide Grip™ antennas will keep the Hybrid Bases in position in the restoration.



5. Mount the restoration on the plaster model and tighten the screws.

It is important that the milled bridge structure fits the hybrid base without gaps and voids.



6. Lift the restoration from the hybrid bases and make sure they connect perfectly in the plaster model analogs



7. Seal the screw channels with thread tape.



8. 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.



9. Apply the ceramic primer on the hybrid base. Let it air dry or gently dry with oil free compressed air.



10. Apply the ceramic primer to the restoration. Let it air dry or gently dry with oil free compressed air.



11. Apply the bonding cement paste with a brush, making sure that all surfaces on the hybrid bases are covered with cement.



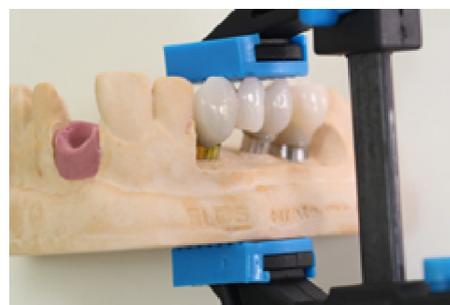
12. Place the restoration on the hybrid bases covered with cement and mount on the model and apply pressure. Remove the excess cement that has been pushed out between the hybrid bases and the restoration.



13. **Self-Cured Workflow:** During curing time, apply pressure to the bridge structure over the hybrid bases. Wait 3 minutes (tack cement) before proceeding to step # 15.



14. **Light-Cured Workflow:** Light cure the cement for 20 seconds per surface (transparent paste only). #15



15. Leave for 3 minutes to complete the self-curing at room temperature.



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



17. Ensure that all excess bonding cement is removed before restoration is installed in the patient's mouth.



18. Find the study at elosdental.com