

Laboratory guidelines

for
UNIVERSAL
BASE
Non-Engaging

Incl. installation procedure
for Elos Accurate® Analog
for Printed Models



Cementation procedure

Digital workflow for a plaster model

These cementing procedures describe the workflow for cementing on a plaster model with Universal Base Non-Engaging in a controlled and optimal cementing procedure.

We create a working model and place three Elos Accurate® Analog for Printed Models, or original analogs from Nobel Biocare, correctly in the plaster model. The model is scanned with Elos Accurate® Scan Body. The cement space in DTX and in the Nobel Biocare Library is preset to 40 µm and the correct file format (stl or mill) is created in CAD software.

Sandblast the internal geometry of the milled tooth. The Universal Base Non-Engaging must not be sandblasted.

Do not use 3D printed models for cementing if the Printed Model has not been validated.



Before cementing, clean the surface thoroughly with alcohol 99.5% (<95% alcohol). Sandblasting of the Universal Base Non-Engaging is not necessary, but if you blast you must protect the connection interface.



Check the screw channel: test that the screw easily passes in and out of the screw channel. Also check that the screwdriver has the same connection that the dentist will use in the clinic.



Mount the bridge on the plaster model. It is important that the milled bridge structure fits the Universal Base Non-Engaging without gaps and voids.



Lift the bridge from the Universal Bases Non-Engaging and make sure they connect perfectly in the plaster model analogs.



Sandblast the internal geometry of the milled tooth restoration connecting to the Universal Base Non-Engaging with alumina 50 µm and burst pressure of 2 bar.

Important: The Universal Base Non-Engaging must not be sandblasted.



Seal the screw channels with thread tape.



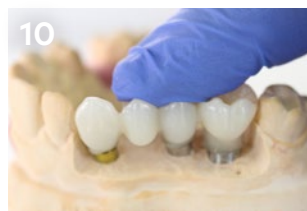
If applicable, apply the ceramic primer on the Universal Base Non-Engaging.



If applicable, apply the ceramic primer to the restoration. The ceramic primer can be used for zirconia (ZrO₂) glass ceramics, porcelain, composite, Ti and CoCr.



Apply the cement paste with a brush, making sure that all surfaces on the Universal Bases Non-Engaging are covered with cement. It is also possible to apply the cement paste to the inside of the restorative structure.



Place the bridge structure on the Universal Bases covered with cement and mounted on the model.



Self-cured workflow: During curing time, apply pressure to the bridge structure over the Universal Bases Non-Engaging. Wait 3 minutes (tack cement) before proceeding to step # 13.



Light-cured workflow: During curing time, apply pressure to the bridge structure over the Universal Bases Non-Engaging. Light-cure the cement excess for 3-5 seconds, remove excess cement from the Universal Bases Non-Engaging according to step # 13.



Remove the excess cement that has been pushed out between the Universal Base Non-Engaging and the bridge structure. Leave for 10 minutes to complete self-curing at room temperature.



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



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

This procedure has been tested and approved with the following materials:

Chemical binding, Self-adhesive
 – Ivoclar Vivadent: Multilink® Hybrid Abutment together with the primer "Monobond® Plus"
 – 3M ESPE: RelyX™ Unicem 2 Automix
 – KurrarayNoritake: Panavia V5

Cementation procedure

Digital workflow on a cementation jig

This instruction describes a controlled and optimal procedure for cementing a multiple-unit restoration with Universal Bases Non-Engaging on a cementation jig, using a digital workflow.

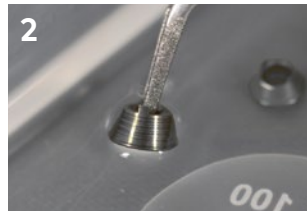
The patient has been scanned with Elos Accurate® Scan Body (Intraoral scan or Desktop scan). The cement space in DTX and in the Nobel Biocare Library is preset to 40 µm and the correct output file (stl or mill) is created in the CAD software.

Sandblast the internal geometry of the milled tooth. The Universal Base Non-Engaging must not be sandblasted.

Do not use 3D printed models for cementing if the printed model has not been validated.



Overview of components for the manufacture of the cement jig.



Before cementing, clean the surface thoroughly with alcohol 99.5% (<95% alcohol). Sandblasting of the Universal Base Non-Engaging is not necessary, but if you blast you must protect the connection interface.



Mount the Universal Base Non-Engaging on the Elos Accurate® Analog for Printed Models with the Screwdriver Manual Unigrip.



The pillars of analogs and Universal Bases Non-Engaging are placed in the bridge structure.



Block the screw hole in the bottom of the analogs (to prevent plaster from entering the analog).



To create the cementing jig, place the entire structure with the analogs in Class 4 plaster.



When the plaster has solidified, lift the bridge structure from the cementing jig.



Seal the screw heads with thread tape.



Sandblast the internal geometry of the milled tooth restoration adjacent to the Universal Bases Non-Engaging with alumina 50 µm and burst pressure of 2 bar.

Important: The Universal Base Non-Engaging must not be sandblasted.



If applicable, apply the ceramic primer to the restoration. The ceramic primer can be used for Zirconia (ZrO₂) glass ceramics, porcelain, composite, Ti and CoCr.



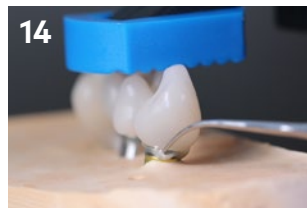
If applicable, apply the ceramic primer to the Universal Base Non-Engaging.



Apply the cement paste with a brush, making sure that all surfaces on the Universal Base Non-Engaging are covered with cement. It is also possible to apply the cement paste to the inside of the bridge structure.



Place the bridge structure on the Universal Bases Non-Engaging covered with cement and mounted on the jig.



Remove the excess cement that has been pushed out between the Universal Bases Non-Engaging and the bridge structure. Leave for 10 minutes to complete self-curing at room temperature.



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



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

This procedure has been tested and approved with the following materials:

- Chemical binding, Self-adhesive
- Ivoclar Vivadent: Multilink® Hybrid Abutment together with the primer "Monobond® Plus"
 - 3M ESPE: RelyX™ Unicem 2 Automix
 - KurrarayNoritake: Panavia V5

Installation procedure

Elos Accurate® Analog for Printed Models

This model analog concept was created for desktop 3D printing. The new analog is available for all Nobel Biocare implant connections and for Multi-unit Abutments.

The Elos Accurate® Analog for Printed Models (Analog) can only be installed in the correct position, has a press fit, and is automatically centered in the model socket. If you want extra assurance of the safe seating, an optional special screw is available.

A model analog specifically created for 3D printed models.

The installation tools are:
Elos Accurate® Analog Pliers,
Elos Accurate® Analog Insertion Pin
and Elos Accurate® Analog Insertion Screw.



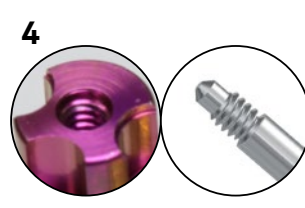
The 3D printed model, Analog, Elos Accurate® Insertion Pin (Insertion Pin), Elos Accurate® Pliers (Pliers) and Elos Accurate® Insertion Screw (Insertion Screw).



Grab the Insertion Pin with your fingertips.



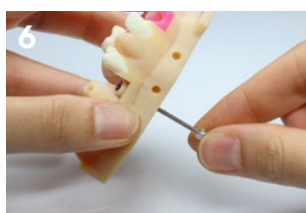
Stick the pin through the bottom of the 3D printed model and screw it into the bottom of the Analog.



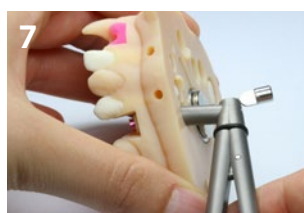
The Insertion Pin is universal and fits all Analogs.



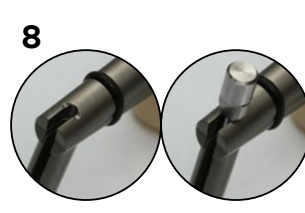
When mounted, gently pull the Analog into the model socket.



Turn slightly to the right until the Analog drops down into the model socket. This indicates that you have found the correct position.



Place the Pliers so that the Insertion Pin ends up in the slot at the top of the Pliers.



The image to the left shows the Pliers with a stabilizing slot for the head of the Insertion Pin. The picture on the right shows the insertion pin inserted correctly into the Pliers.



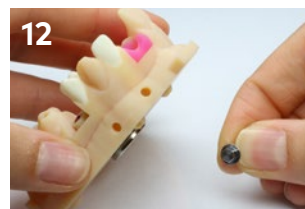
Apply compression force to the handle of the Pliers until the Analog is pulled into position.



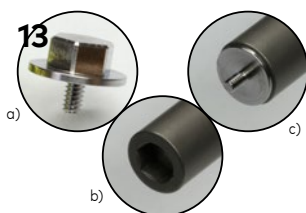
Remove the Pliers from the Insertion Pin.



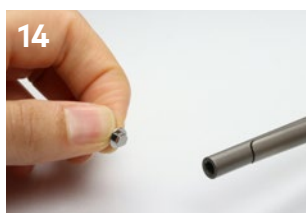
Unscrew the Insertion Pin from the Analog. The analog is now completely installed and ready to use.



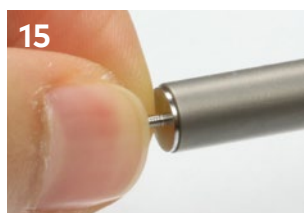
If desired, secure with the Insertion Screw by mounting it onto the Analog from the bottom of the 3D printed model.



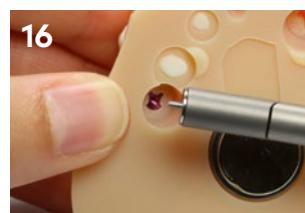
a) Insertion Screw.
b) Socket wrench at the back of the Pliers.
c) Insertion Screw mounted onto the Pliers.



Place the Insertion Screw in the socket wrench of the Pliers.



The socket wrench has a magnetic feature which will keep the Insertion Screw securely in place.



Use the Pliers to gently place the Insertion Screw in the bottom hole of the Analog.



Rotate the Pliers clockwise until the Insertion Screw is fully screwed. The torque applied to the Insertion Screw must not exceed 5 Ncm. (Screw lightly.)



Remove the Pliers and the installation screw. The Analog is now perfectly seated in the 3D printed model.

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