

# Procera® Laminate

## Introduction

- Alumina
- Excellent strength with beautiful all-ceramic esthetics
- Biocompatible
- Easy technique, saves chair time

## Indications

Use the Procera® Laminate in instances where you can respect its preparation requirements.

## Clinical Procedure

### Instrumentation

Procera® needs only your conventional preparation techniques, a moderate chamfer margin and rounded internal line angles.

Brasseler USA® (in collaboration with Nobel Biocare) has developed a preparation kit for use with Procera® Laminates, which is available in most markets. The shapes are of standard design and can also be found separately from other suppliers.

The preparation kit includes the necessary diamonds for preparation.

- #1523121: Procera® Laminate kit.

### Preparation

Each Procera® product uses preparation techniques with which you are already familiar. The preparation is characterized by thinned margins. In general, you should perform reduction in order to:

- Eliminate sharp line angles and sharp edges.
- Establish tapered axial walls.
- Provide adequate space for the coping and the NobelRondo™ porcelain.
- Use general veneer preparation techniques.
- Conservative reduction (0.5 mm to 0.7 mm) is recommended.
- Extend the palatal preparation by 1 mm (minimum) to 3 mm (maximum).
- You can extend the preparation beyond the contact points to a maximum of 1 mm.

**Note! The laminate core is only 0.25 mm thick.**

## Impression

### Taking an Impression

Your ability to accurately capture an impression is critical to correct transfer of information to the laboratory.

- Use your preferred impression material and method.
- Subgingival positioned finish lines open up the possibilities to create a perfect emergence profile with Procera® restorations.
- Therefore, try to make impressions that record a minimum of 0.5 mm below the finish line.
- Verify that the impression is free of voids, inconsistencies, or tears.

### Shade Selection

It is essential to accurately document the color of the adjacent teeth according to the Vita range, since it is the pattern used for the veneering porcelain that best suits Procera® restorations.

Thereafter, the easy NobelRondo™ procedure using sample discs provides unlimited possibilities for achieving customized esthetics, (eg, the hue, chroma and value of the teeth).

For more information see the NobelRondo™ Ceramic Concept and Procedures CD or manual.

### Bonding

When you receive your Procera® restoration from the laboratory:

- Check the restoration for damage on the die.
- Seat the Procera® restoration on the tooth.
- Check the proximal contact.
- Evaluate fit, occlusion, and esthetics prior to connection.

Procera® Laminate must be bonded. Use dual cure resin cements using adhesive bonding techniques.

- Documented composite bond strength for Procera® Laminate restorations are with phosphate bonded monomer-containing composites.
- After try-in at the clinic, remove proteins by rubbing with 37% phosphoric acid and rinsing with water for 1 minute. After dry blasting, the restoration is dehydrated with alcohol.
- The tooth is treated and the bonding material is applied in accordance with recommendations from the manufacturer of the composite cement.

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- After seating, light cure in accordance with the manufacturer's guidance. Self-curing is recommended to avoid influence from the chairside lamp on curing time.

## New interactive test – Procera® Laminate Clinical Procedure

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At the end of each section, this Tutorial includes a series of multiple-choice questions that should help you to determine if you understood its key points. Simply read each question, click on the radial button with the proper answer.

- 1. For the Procera® Laminate, a conservative reduction of \_\_\_\_\_ is recommended.**
  - a. 0.5 mm to 0.7 mm
  - b. 0.5 mm to 0.6 mm
  - c. 0.7 mm to 0.5 mm
  - d. None of the above
- 2. In order to transfer correct information to the laboratory, what must be accurately captured?**
  - a. Shade selection
  - b. Impression
  - c. Both A and B
  - d. None of the above
- 3. The NobelRondo™ procedure, using the sample discs, provides unlimited possibilities for achieving customized esthetics such as:**
  - a. Inconsistencies, voids, and tears
  - b. Hue, value, and chroma
  - c. Proper fit and occlusion
  - d. All of the above
- 4. During preparation, the palatal preparation should be extended by a minimum of \_\_\_\_\_ and a maximum of \_\_\_\_\_.**
  - a. 0.5 mm; 2.5 mm
  - b. 1 mm; 3 mm
  - c. 0.5 mm; 3 mm
  - d. 1 mm; 2 mm
- 5. Procera® Laminate \_\_\_\_\_ bonded.**
  - a. Can be
  - b. Does not have to be
  - c. Must be
  - d. None of the above

### Answer Key

1. a. 0.5 mm to 0.7 mm
2. c. Both A and B
3. b. Hue, value, and chroma
4. b. 1 mm; 3 mm
5. c. Must be

# Procera® Laminate

## Laboratory Procedure

### Modelling

Follow your standard working procedure to create a working model.

Once fabricated, you will use the model in the scanning phase, as well as in the subsequent fabrication phase.

### Sectioning

Ensure the model height is sufficient (approximately 10 mm below the margin) so that scannable dies can be produced.

- Saw relevant parts of the model to form removable units with straight sides.

### Die trimming

All dies should be ground and ditched below the margin.

- Create an undercut no deeper than 0.5 mm under the margin.
- The length of the undercut should be a minimum of 1.5 mm to allow the scanner stylus tip to travel more easily on the die.

### Die control

- Wax should be used to build up the die on the lingual side to allow the scanner probe tip to travel easier on the die.
- Make sure that no undercuts are present above the finish line. If you view undesirable elements (divots, cavities, sharp edges, etc.), block them out with wax to avoid damaging the stylus.
- Die hardener is recommended.
- The use of die spacer is not recommended, as the Procera® process already makes compensation for the cement space.

### Scanning

Once you have made a working model of the Procera® Laminate, the next step is to scan the die to produce input data for the Procera® CAD application.

Double-click on the scanner to see more details about how to set-up and use the scanner.

### Procera® Forte

For Crowns, Abutments and Laminates

### Remember!

The online step-by-step tutorial in the Procera® Forte application guides you through the complete scanning workflow.

### Scanner Set-up

- Powerful magnets ensure that the base sits firmly on the base plate and that the die or jaw holders are firmly positioned on the top plate.
- Procera® Forte is controlled through the scanning software (accessed via the Procera® Software interface).
- When positioning the stylus, always handle the stylus itself. Do not hold the probe.
- Before using Procera® Forte scanner for the first time, plug-in the hardware and install the Procera® Forte scanning software on your PC (see scanner set-up instructions).
- Switch the scanner power on.
- Procera® Software must first be installed on your PC.
- Refer to the system specifications for details of the minimum PC requirements to run the software.

### Log in to Procera® System

- Click the Procera® System icon.
- Log in by entering the appropriate username and password and then click 'Enter'.
- Click the Procera® Forte icon.
- When you are successfully logged in, the Procera® System front-end software will now automatically attempt to connect to Procera® Forte.
- If the scanner is found, the indicator on the toolbar will turn bright green and the scanner's serial number will be displayed in the title bar.
- Procera® Forte is now ready for use.

### Note!

If you want to change scanners from Procera® Forte to Procera® Piccolo or vice-versa, close the scanning application. In the Procera® System interface, open the "Scanner Configuration" menu and select the appropriate scanner.

### Initiation

- If the indicator light is orange, the scanner is in the process of booting.
- You will need to wait until it turns bright green. Note that this could take up to 2 minutes.
- If no scanner is found the indicator on the tool bar will remain dark green. If this happens, check that the USB and power are connected and that the power switch is on.
- If there is power to the scanner and the cabling is

OK, there is a more serious problem. Refer to the faultfinding section in the Procera® Forte Help file.

### Calibration Check

- It is recommended that you check your Procera® Forte scanner once a day, but at least once a week.
- Click the “Scanner Check” icon in the Procera® Forte Scanner software.
- Follow the instructions that appear on the screen.

### Select Type of Operation

- For Procera® Laminates, select the “Single Preparation” icon from the scanner software toolbar.

### Die alignment and centering

- Place the die in the die holder with the facial aspect towards you.
- Center the die in the die holder and tighten the screw, distributing even pressure on the die.
- Make sure that you cannot move the die in the die holder.
- Place the die holder on the gimbal.
- To align the die in all directions loosen the black ring on the gimbal.
- Tilt the die as flat as possible without causing any undercuts on the palatal side. When looked upon from above, the whole extension of the margin should be visible.
- Retighten the black ring.
- To center the die, place the gimbal on the base plate of the scanner and loosen the lever. Retighten when satisfied.
- Center the stylus no more than 1 mm from the highest point.

### Start/Stop Scanning

Follow the online step-by-step tutorial in the Procera® Forte application concerning the subsequent scanning process.

- Click the “Start scan” icon in the Procera® Forte software toolbar to start scanning.
- The scan starts and a 3-dimensional plot of the scanned model appears on the screen.
- Click the “Stop scan” icon to stop scanning.
- If the scan is aborted, the whole scan must be started again from the beginning.

### Complete Scanning

- When the scan is complete, Procera® Forte will automatically stop and the data that has been collected will be displayed on your screen as a solid model.
- The resulting data is deemed unreliable if undercuts (red patches) appear above the margin line.
- The scanned data is saved automatically upon completion of the scan and is now available for import into the Procera® CADDesign application.

### Delete Scanning

If you do not want to import the scanned data into the Procera® CADDesign application, you can delete it using the “Delete job” icon, or by selecting the ‘Delete’ option from the ‘File’ menu.

### Procera® Piccolo

For Crowns, Abutments and Laminates

#### Remember!

The online step-by-step tutorial in the Procera® Piccolo application guides you through the complete scanning workflow.

### Scanner Set-up

- The scanner is controlled through the software interface.
- The probe and turntable are handled manually.
- The lever on the side, releases the turntable so that it can be set to a correct start position.
- Along with the scanner, you have received a box with a holder, a die holder, a calibration gauge and a centering pointer.
- The power switch is located at the back of the scanner.
- Ensure that all cables are connected.
- Clean the probe tip.

### Log in to Procera® System

- Click on the Procera® System icon.
- Log in by using the appropriate username, password and press Enter on the keyboard.
- Click on the Procera® Piccolo Icon.
- Procera® System recognizes if a Procera® Piccolo is installed and starts the interface. An icon appears in the working task bar.

### Note!

If you want to change scanners from Procera® Forte to

Procera® Piccolo or vice-versa, close the scanning application. In the Procera® System interface, open the “Scanner Configuration” menu and select the appropriate scanner.

#### Initiation and Calibration

- After the Procera® Piccolo is switched-on, a calibration must be carried out before the first scan.
- This is automatically detected by the software.
- A message will appear in the middle of the screen.
- Click on “Calibrate” and follow the instructions on the screen.

#### Note!

To ensure continuous precision in the scans, regularly check Procera® Piccolo against the gauge.

#### Select Type of Operation

For Procera® Laminates, select the “single coping” icon from the scanner software toolbar.

#### Die Alignment

- Place the die in the die holder with the facial aspect towards you and the screws to the right.
- Center the die in the die holder and tighten the screws, distributing even pressure on the die.
- Make sure that you cannot move the die in the die holder.
- To align the die in all directions, push the upper part of the die holder.
- To tilt the upper part of the die holder, push using both hands and thumbs.
- Position the die as flat as possible without causing any undercuts above the margin. When looked upon from above, the whole extension of the margin should be visible.

#### Centering

- Position the turntable at 270° (marked on the turntable and scanner base).
- Carefully put the die holder on the edge of the turntable.
- Place the die holder with the facial aspect of the die towards you.
- Slide the die holder into the center without hitting the probe tip.
- Center the dies 1 mm from the highest point by using the centering pointer.

#### Start/Stop Scanning

Follow the online step-by-step tutorial in the Procera® Piccolo application concerning the subsequent scanning process.

- Click the “Start scan” icon in the Procera® Piccolo software toolbar to start scanning.
- The scan starts and a 3-dimensional plot of the scanned model appears on the screen.
- Click the “Stop scan” icon to stop scanning.
- If the scan is aborted, the whole scan must be started again from the beginning.

#### Complete Scanning

- When the scan is complete, Procera® Piccolo will automatically stop and the data that has been collected will be displayed on your screen as a solid model.
- The resulting data is deemed unreliable if undercuts (red patches) appear above the margin line.
- The scanned data is saved automatically upon completion of the scan and is now available for import into the Procera® CADDdesign application.

#### Delete Scanning

- If you do not want to import the scanned data into the Procera® CADDdesign application, you can delete it using the delete icon, or by selecting the ‘Delete’ option from the ‘File’ menu.

#### Procera® Software

Procera® Software is used to:

- Create a production order
- Process the scanning data in a CAD environment
- Dispatch an order for production

#### Create an Order

- Whilst scanning is ongoing, click the “Order Manager” icon on the left-hand side of the Procera® Software screen.
- To create an order, follow the online step-by-step tutorial in the Procera® Software Order Manager application.
- To gain a general reference overview of the Order Manager application, you can also click on Help in the application’s main menu.

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### CAD Design application

- After creating a new order in the Order Manager application, click the Procera® CADDesign icon on the left-hand side of the Procera® Software window to finalize the design after scanning.
- Click on the link to open the CADDesign tutorial.

### Dispatch an Order

- Once you have designed your Procera® Laminate, use the Procera® Software Order Manager to dispatch the order to the Nobel Biocare production facility.
- Click the “Order Manager” icon on the left-hand side of the Procera® Software screen.
- To dispatch an order, follow the online step-by-step tutorial in the Procera® Software Order Manager application.
- To gain a general reference overview of the Order Manager application, you can also click on Help in the application’s main menu.

### Concluding Procedure

#### After delivery of the Procera® Laminate from the Nobel Biocare production facility:

- Apply NobelRondo™ Alumina porcelain (see the NobelRondo™ Ceramic Concept and Procedures CD or manual).
- Clean in an ultrasonic bath before sending the finished product to the clinic.

## New interactive test – Procera® Laminate Laboratory Procedure

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### Procera® Forte Users

At the end of each section, this Tutorial includes a series of multiple-choice questions that should help you to determine if you understood its key points. Simply read each question, click on the radial button with the proper answer.

- 1. If no scanner is found, the indicator on the tool bar will remain \_\_\_\_\_.**
  - a. Red
  - b. Orange
  - c. Dark green
  - d. Bright yellow
- 2. In order to check the scanner, what icon should be chosen?**
  - a. Calibrate
  - b. Re-set
  - c. Scanner check
  - d. None of the above
- 3. On the scanner software toolbar, which operation must you select for Procera® Laminates?**
  - a. Scanner check
  - b. Run and batch
  - c. Single preparation
  - d. None of the above
- 4. To start scanning, click on the \_\_\_\_\_ icon.**
  - a. Scanner check
  - b. Start scan
  - c. Single Preparation
  - d. None of the above
- 5. When the scan is complete, the data:**
  - a. Is automatically dispatched to Nobel Biocare.
  - b. Is automatically imported into the Procera® CADDesign application.
  - c. Will be displayed on your screen as a solid model.
  - d. None of the above.

### Answer Key

1. c. Dark green
2. c. Scanner check
3. c. Single preparation
4. b. Start scan
5. c. Will be displayed on your screen as a solid model.

## New interactive test – Procera® Laminate Laboratory Procedure

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### Procera® Piccolo Users

At the end of each section, this Tutorial includes a series of multiple-choice questions that should help you to determine if you understood its key points. Simply read each question, click on the radial button with the proper answer.

- 1. During alignment, position the die as flat as possible without causing any undercuts above the margin. When looked upon from \_\_\_\_\_, the whole extension of the margin should be visible.**
  - a. Below
  - b. The side
  - c. Above
  - d. None of the above
- 2. When centering, the turntable should be positioned at what mark?**
  - a. 45°
  - b. 90°
  - c. 180°
  - d. 270°
- 3. Once scanning starts, a \_\_\_\_\_ of the scanned model appears on screen.**
  - a. Solid model
  - b. Transparent model
  - c. 2-D model
  - d. 3-D model
- 4. If you do not want to import the scanned data into the Procera® CADDesign application, you can delete it using:**
  - a. The delete icon
  - b. The delete option from the file menu
  - c. Both A and B
  - d. Neither A nor B
- 5. Using the centering pointer, center the die \_\_\_\_\_ from the highest point.**
  - a. 1 mm
  - b. 2 mm
  - c. 3 mm
  - d. 4 mm

### Answer Key

1. c. Above
2. d. 270°
3. d. 3-D model
4. c. Both A and B
5. a. 1 mm