

duo PCH™
Porcelain Composite Hybrid



Anterior Direct Restoration System

DIRECTIONS FOR USE



Duo:PCH Clinical Indications

- Permanently whiten stained or dark teeth
- Reshape misaligned, awkward or crooked teeth
- Level out uneven teeth
- Lengthen short teeth
- Close gaps
- Revitalize old crowns and bridgework



28 UNIT DUO:PCH KIT CONTENTS

TOP TRAY:

- Duo:PCH Composite Cement Shades OM1, A1/B1, A2/B2, A3.5
- TetraPaque® Enamel Paste (1g)
- Porcelock® Porcelain Etchant (1.7mL)
- Etch 'N' Seal® (3mL)
- Porcelain Laminate Polishing Paste (5g)
- Porcelain Conditioner (6g)
- Cerinate Prime® (5mL)
- Tenure® Adhesive A & B (6ml)
- Tenure® S Dab-Eze® (3g)
- Dappen Dish (7pc)
- Patient Caddy (7pc)



BOTTOM TRAY:

- Upper Universal Bicuspid (2M, 2L)
- Upper Cuspid M (2 each side)
- Upper Lateral M (2 each side)
- Upper Central M (2 each side)
- Upper Cuspid L (2 each side)
- Upper Lateral L (2 each side)
- Upper Cuspid L (2 each side)
- Pink Syringe Tips (20pc)
- Black Composite Syringe Tips (25pc)
- Brush Tips (25pc)
- Brush Tip handle (1pc)
- Matrix Strips CLR
- Schure 349 Instrument
- CeriSander Strips (U-Fine 6pc/Fine 6pc)
- Sizing Guide Uppers (XS, S, M, L, XL)
- Sizing Guide Loweres (S, M)

Product Overview

Uppers

	Centrals 8/9	Laterals 7/10	Cuspids 6/11	Bicuspids Universal
XS	H: 9.39 W: 8.06	H: 7.79 W: 6.13	H: 8.8 W: 7.15	H: 8.4 W: 6.95
S	H: 10.33 W: 8.87	H: 8.57 W: 6.74	H: 9.68 W: 7.87	H: 9.24 W: 7.65
M	H: 11.36 W: 9.75	H: 9.43 W: 7.42	H: 10.65 W: 8.65	H: 10.16 W: 8.41
L	H: 12.5 W: 10.73	H: 10.37 W: 8.16	H: 11.71 W: 9.52	H: 11.18 W: 9.25
XL	H: 13.75 W: 11.8	H: 11.41 W: 8.97	H: 12.88 W: 10.47	H: 12.3 W: 10.8

Loweres

	Centrals 24/25	Laterals 23/26	Cuspids 22/27	Bicuspids Universal
S	H: 11.05 W: 5.57	H: 10.89 W: 5.71	H: 11.09 W: 7.87	H: 9.24 W: 7.65
M	H: 12.16 W: 6.13	H: 11.98 W: 6.28	H: 12.2 W: 8.65	H: 10.16 W: 8.41

Shade: B1
Opacity: 35%

Technical Data⁺

Flexural Strength	195 MPa
Compressive Strength	444 MPa
Flexural Modulus	28 Gpa
Surface Hardness	>142 HV
Shear Bond Strength	18.6 MPa

⁺Data on file

Caution

- For your records, keep the Duo:PCH Shell Stickers with the patient's chart or capture lot information for future reference.
- Use a new dappen dish for each procedure.
- Ensure original caps are matched to the appropriate syringe to avoid cross contamination.
- Adjust shells before and/or after placement carefully to avoid damage.

Cleaning and Sterilization Instructions for Duo:PCH Porcelain Shells

It is possible that during try-in you will find the **Duo:PCH Porcelain Shells** that you chose are not quite right and that another is more suitable. To protect your patients from infection, if you do not discard the shell, you will need to clean and sterilize it.

- Perform manual cleaning by placing the Duo:PCH Porcelain Shell under warm running water using gauze to remove any residues. Perform a final rinse in warm running water for a minimum of 1 minute.
- Autoclave at 270°F (132°C) at 27 psi (186 kPa) in a sterilized pouch for 15 minutes. Return to their trays when cooled.

Storage

- Do not expose to temperatures exceeding 75°F (23°C).
- Do not expose to direct sunlight.
- Do not freeze.

Directions For Use

PLACEMENT PROTOCOL: PRE- PROCEDURE

- Determine if composite build up and/or reduction is needed. In some cases it may be preferable to reduce bulky areas. Complete build up or reduction. (Figure 1)
- Determine if either intraoral or extra-oral customization of the porcelain shell is preferred.
- If latter is preferred, impression taking is required to create stone model.
- Use the sizing guide to help assist in selecting appropriate porcelain shell size. (Figure 2)



Figure 1

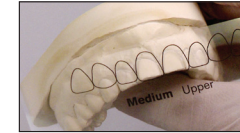


Figure 2

PREPARATION – PORCELAIN SHELLS

- 1 Contour outline of porcelain shells for aesthetic alignment using a high speed hand piece with a finishing bur or diamond. Contour lingual (mating) surface as required for proper fit. (Figure 3)
- 2 Treat the shells with Porcelain Conditioner for 30 seconds. Rinse and dry well.
- 3 Apply Cerinate Prime to the porcelain shells for 30 seconds and blow thin. (Figure 4)
- 4 Apply one coat of Tenure S. (Figure 5)
- 5 Place porcelain shells into Patient Caddy and immediately shield from light until they are seated.



Figure 3



Figure 4

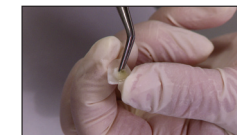


Figure 5

PORCELOCK PORCELAIN ETCHING SOLUTION TIP:

PorceLock may be applied to porcelain surface for 3-5 minutes, rise and dry well.

TRY-IN

- 6 Trial fit the porcelain shell to the prepared tooth (Figure 6). If another shell is more suitable, repeat steps 1-5.
See Cleaning and Sterilization Instructions for future reuse.



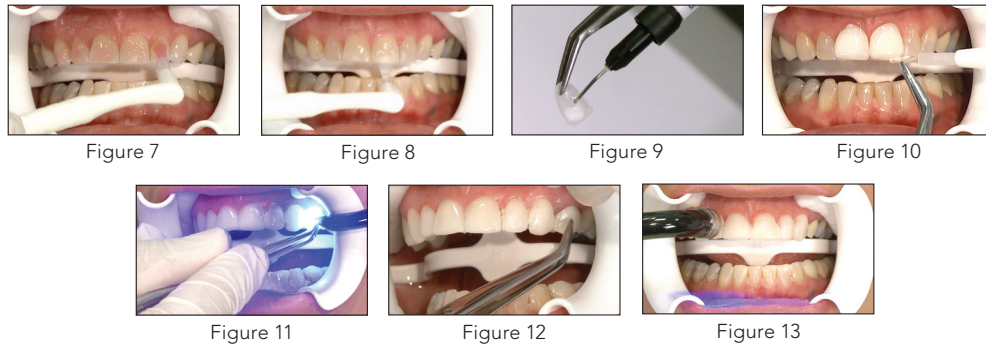
Figure 6

BONDING

- 7 Apply Etch N' Seal for 20 seconds, then rinse and dry. (Figure 7)
- 8 Mix equal part Tenure A and B. Apply 3-5 coats to each tooth and gently blow thin with air. (Figure 8)
- 9 Apply 1 coat of Tenure S and blow to a thin coat.
- 10 Place Mylar strips interproximally, if desired.
- 11 Select the appropriate shade and apply the composite cement to the prepared shell, then seat. (Figure 9)

NOTE: If greater opacity is desired - you may mix TetraPaque Enamel Opaquer into the Duo cement for custom shading. Final restoration shade is dependent on many variables including underlying dentin color, cement thickness, and porcelain shade and opacity. Duo:PCH cement shade designations are intended as a guide for possible final restoration shade.

- 12 Wipe off gross excess composite cement and ensure shell is positioned properly. (Figure 10)
- 13 Tack cure using a curing light such as the Sapphire PAC light with a 2mm tip near the mid-incisal edge for 3-5 seconds to stabilize the shell. (Figure 11) Refer to the manufacturer instructions and *Curing Tips* provided for alternate curing lights.
- 14 Repeat steps 7-13 to place the remaining shells. (Figure 12)
- 15 Remove excess uncured composite cement from all porcelain shells.
- 16 Final cure the buccal and lingual surface of every tooth with 5 second exposures using the Sapphire PAC light fitted with the 9mm tip. Refer to the manufacturer instructions and *Curing Tips* provided for alternate curing lights. (Figure 13)



CURING TIPS:

For curing lights with power density greater than 800 mW/cm² polymerize from the buccal and lingual for 10 second exposures on each area.

For curing lights with power density less than 800 mW/cm² polymerize from the buccal and lingual for 10 second exposures on each area.

Curing lights with power density less than 300 mW/cm² should not be used to cure Duo:PCH shells.

FINISHING

We recommend the **LUMINEERS® Finishing Kit** (No. 033897100), which includes all components listed in the following instructions. (See Figure 14)

- 17 Use a **Schure 349** instrument to remove the cured cement along the margins, as well as from the interproximal area along both the facial and lingual (Figure 15). You may also use the **12 Fluted Carbide Bur** (C). This bur is an excellent tool for cleaning up residual resin cement and for finishing composites.
- 18 Using the **Interproximal Mosquito Diamond** (F), refine the margins along the interproximal and facial areas, if necessary. (Figure 16)
- 19 Trim/polish the margins of the porcelain veneer, if necessary with an **Extra Fine Smoothing Diamond**.
- 20 Use an explorer to check the transition from porcelain to tooth structure. There should not be a catch (or bump).
- 21 If necessary, further polish the margins using the **Interproximal Mosquito Diamond** (F) again.
- 22 Check the bite with articulating paper (Figure 17). Use the **Football Diamond** (E) on the lingual to finish the incisal wrap and adjust high spots or length.
- 23 Use the **CeriSaw** to separate the teeth using a rocking motion. (Figure 18)
- 24 Use the **CeriSander** (fine grit) to smooth the interproximal surfaces. (Figure 19)
- 25 Use the **CeriSander** (ultra-fine grit) to further smooth the interproximal surfaces. It is important that you use each sanding blade only two or three times per tooth to smooth contacts. (Figure 20)
- 26 Check the interproximal surfaces with dental floss for smoothness.
- 27 Continue with **Porcelain Laminate Polishing Paste** using **Polishing Cup** (G). (Figure 21)



- A. Porcelain Ledge Diamond
- B. Extra-Fine Smoothing Diamond
- C. 12 Fluted Carbide Bur
- D. Clean-Up Carbide Bur
- E. Football Diamond
- F. Interproximal Mosquito Diamond
- G. Polishing Cup

Figure 14