

duo PCH[®]
Porcelain Composite Hybrid



Anterior Direct Restoration System

DIRECTIONS FOR USE

Duo:PCH Clinical Indications

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



28 UNIT DUO:PCH STARTER KIT CONTENTS

TOP TRAY:

- Duo:PCH Composite Cement Shades (4sy): OM1, A1/B1, A2/B2, A3.5
- Enamel Paste (1g)
- Porcelain Etching Solution (1.7mL)
- Etchant (3mL)
- Porcelain Laminate Polishing Paste (5g)
- Porcelain Conditioner (6g)
- Primer (5mL)
- Adhesives (6ml)
- Bonding Agent (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 Central L (2 each side)
- Pink Syringe Tips (20pc)
- Black Composite Syringe Tips (25pc)
- Brush Tips (25pc)
- Brush Tip Handle
- Matrix Strips
- Schure 349 Instrument
- CeriSaw Anterior Handle & Blade
- CeriSander Strips (U-Fine 6pc/Fine 6pc)
- Sizing Guide Uppers (XS, S, M, L, XL)
- Sizing Guide Lower (S, M)

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 assist in selecting appropriate porcelain shell size. (Figure 2)



Figure 1

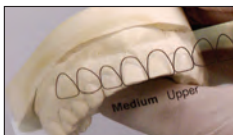


Figure 2

PREPARATION – PORCELAIN SHELLS

PORCELOCK PORCELAIN ETCHING SOLUTION TIP:

Although Porcelain Shells are pre-etched, Porcelock may be applied to porcelain surface for 3-5 minutes, rinse and dry well.

- 1 Contour outline of porcelain shells for aesthetic alignment using a high-speed hand piece with water spray and 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) and gently blow thin.
- 5 Place porcelain shells into Patient Caddy and immediately shield from light until they are seated.



Figure 3



Figure 4



Figure 5

TRY-IN

- 6 Trial fit the adjusted porcelain shell to the tooth to test for proper fit (Figure 6). If another shell is more suitable, repeat steps 1-5.



Figure 6

BONDING

- 7 Apply Etch N' Seal® for 20 seconds, then rinse and dry. (Figure 7)
- 8 Mix equal parts Tenure A and B. Apply 3-5 coats to each tooth and gently blow thin with air until shiny or glossy. (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: Try-In Paste does not match composite cement color. If greater opacity is desired - you may mix Enamel Light-Cure Opaquer into the Duo:PCH composite cement for custom shading. Final restoration shade is dependent on many variables including underlying dentin color, composite cement thickness, and porcelain shade and opacity. Duo:PCH composite 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)
Tip: Do Not put pressure on porcelain shell when curing to avoid damaging.
- 13 Tack cure* using a curing light such as the Sapphire Plus light with a 2mm tip near the mid-incisal edge for 3-5 seconds to stabilize the shell. (Figure 11)
- 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 Plus light fitted with the 9mm tip. (Figure 13)



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13

*See your curing light's manufacturer instructions and/or the *Curing Tips* provided for alternate curing settings.

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 20 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 - DIRECT RESTORATION

We recommend the **LUMINEERS® Finishing Kit**, 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 (B)**.
- 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)



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



Figure 21

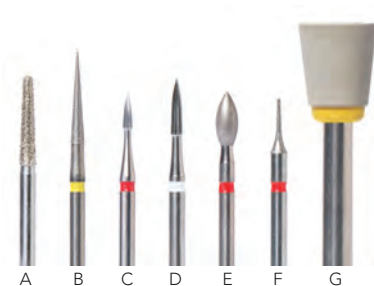


Figure 14

- 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

Caution

- For your records, keep the Duo:PCH Porcelain 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 porcelain shells before and/or after placement carefully to avoid damage.

Storage

- Do not expose to temperatures exceeding 75°F (25°C).
- Do not expose to direct sunlight.
- Do not freeze.

Product Overview-Porcelain Shells

Uppers

	Centrals 8/9	Laterals 7/10	Cuspids 6/11	Bicuspid 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

Lowers

	Centrals 24/25	Laterals 23/26	Cuspids 22/27	Bicuspid 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

Technical Data[†]

Characteristics	Porcelain Shells	Composite Cement
Flexural Strength	193 MPa	76 MPa
Compressive Strength	721 MPa	241 MPa
Flexural Modulus	35.8 GPa	6.3 GPa
Surface Hardness	>530 HV	>35.4 HV
Shear Bond Strength	21.7 MPa	34.2 MPa

[†]Data on file

Sales (US): 800-445-0345

Customer Service (US) : 800-433-6628

If outside of the US, please contact your designated distributor or visit denmat.com

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CE 0044



96°F
2°C



75°F
25°C

Rx ONLY



Wear
eye
protection



Wear
protective
gloves

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