

duo PCH[®]

Porcelain Composite Hybrid



Anterior Direct Restoration System



DIRECTIONS FOR USE

dm
DenMat[®]

Directions For Use

1. 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

2. Preparation – Porcelain Shells

Note: 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.

- 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)
- Treat the shells with Porcelain Conditioner for 30 seconds. Rinse and dry well.
- Apply Cerinate Prime® to the porcelain shells for 30 seconds and blow thin. (Figure 4)
- Apply one coat of Tenure® S. (Figure 5) and gently blow thin.
- Place porcelain shells into Patient Caddy and immediately shield from light until they are seated.



Figure 3



Figure 4



Figure 5

3. Try-In

- a. 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

4. Bonding

- a. Apply Etch N' Seal® for 20 seconds, then rinse and dry. (Figure 7)
- b. 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)
- c. Apply 1 coat of Tenure S and blow to a thin coat.
- d. Place mylar strips interproximally, if desired.
- e. 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.

- f. 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.
- g. 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)
- h. Repeat steps 7-13 to place the remaining shells. (Figure 12)
- i. Remove excess uncured composite cement from all porcelain shells.
- j. 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)

4. Bonding – Continued



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12



Figure 13

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

5. 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.

6. Finishing – Direct Restoration

We recommend the Lumineers[®] Finishing Kit, which includes all components listed in the following instructions. (See Figure 14)

- 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.
- Using the Interproximal Mosquito Diamond (F), refine the margins along the interproximal and facial areas, if necessary. (Figure 16)
- Trim/polish the margins of the porcelain veneer, if necessary with an Extra Fine Smoothing Diamond (B).
- Use an explorer to check the transition from porcelain to tooth structure. There should not be a catch (or bump).

- e. If necessary, further polish the margins using the Interproximal Mosquito Diamond (F) again.
- f. 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.
- g. Use the CeriSaw™ to separate the teeth using a rocking motion. (Figure 18)
- h. Use the CeriSander™ (fine grit) to smooth the interproximal surfaces. (Figure 19)
- i. 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)
- j. Check the interproximal surfaces with dental floss for smoothness.
- k. Continue with Porcelain Laminate Polishing Paste using Polishing Cup (G). (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



Figure 15



Figure 16



Figure 17



Figure 18



Figure 19



Figure 20



Figure 21

Caution

1. 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.
2. Ensure original caps are matched to the appropriate syringe to avoid cross contamination.
3. Adjust porcelain shells before and/or after placement carefully to avoid damage.

CAUTION: Wear protective gloves while using this product.

CAUTION: Wear eye protection while using this product.

CAUTION: Duo:PCH has not been studied in children, pregnant or breast-feeding women.

Storage

Do not expose to temperatures exceeding 75°F (25°C).

Do not expose to direct sunlight.

Do not freeze.

SAFETY DATA SHEETS AVAILABLE AT denmat.com

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

Lower

	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

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

duo PCH[®]

Porcelain Composite Hybrid

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LOT



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eye
protection



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CE 0044

R_X ONLY



Wear
protective
gloves

Symbols Glossary available at: denmat.com/symbols

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