Custom splint

Light-cure material provides quick and easy model adaptation

Information provided by Dentation LLC.

**Primosplint light-cured composite** splint material exhibits a composite-like consistency (similar to clay) combined with a rod shape, which provide easy model adaptation as well as extended working time. The light-curability provides exceptional dimensional stability, resulting in a precise, stable, passive fit after the curing process and dramatically reducing the time needed for occlusal adjustments. It contains no peroxide or methyl methacrylate for optimal biocompatibility with no bad taste in the patient's mouth. Primosplint can be used for night guards, TMI splints, surgical stents, implant drilling guides, CT-scan, x-ray splints, and more.

Following are steps for fabricating a custom splint using Primosplint composite material.

01 After blocking out any undercuts, apply Primosep separator on both upper and lower models and wait until it has dried (Fig. A).

02 Pre-form one of the Primosplint rods into a dental arch shape and lightly press the rod in a gingival direction, both labially and lingually (Fig. B). Note: Make sure that a sufficient amount of Primosplint material remains occlusally, depending on the desired thickness of the splint.

03 With a tapping movement, slowly close the articulator until the pin touches the incisal plate (Fig. C).

04 Once all movements are simulated and the occlusal information is transferred to the splint, light cure for 10 minutes either in a Primotec Metallight curing unit.

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**Fig. A** Apply Primosep separator to upper and lower models and wait until it dries.

**Fig. B** Pre-form a Primosplint rod into a dental arch shape and lightly press down in a gingival direction.

**Fig. C** Slowly close the articulator until the pin touches the incisal plate.

**Fig. D** Light cure for 10 minutes.

**Fig. E** Use a stiff, dull instrument to remove the splint from the model.

**Fig. F** Use Primoclean cleaning agent to remove the thin oxygen inhibition layer on the surface of the splint.

**Fig. G** Apply Primoglaze and light cure, or polish with pumice and then shine.

**Fig. H** The completed splint on the model with contacts and anterior guidance indicated.

**Fig. J** Efficiently produced, optimally fitting x-ray splint.
(Fig. D) or similar light-curing unit equipped with 350-to-400-nm U-V-A bulbs.

05 After polymerization is complete, use a stiff dull instrument to remove the splint from the model (Fig. E). Note: Depending on the thickness of the splint and light-curing unit used, the splint may need to be light cured for another 5 minutes with the occlusal surface down.

06 Using Primoclean cleaning agent, remove the very thin oxygen inhibition layer remaining on the surface by wiping with a tissue or small sponge (Fig. F).

07 Make any shape corrections by grinding. Check the centric and eccentric and, if necessary, remove any undesired contact with a small round carbide bur (Fig. G).

08 To polish, apply a thin layer of the Primoglaze light-cured lacquer glaze with a brush and light cure for another 5 minutes. Alternatively, polish with pumice followed by a high shine (Fig. H).

Fig. I shows the completed splint on the model. Fig. J shows an X-ray splint and Fig. K a NobelGuide surgical stent.

Primosplint also can be added onto a suck-down matrix. To do so, roughen the matrix by sandblasting with 110-micron aluminium oxide at a blasting pressure of 2 to 4 bar. After sandblasting, clean the matrix, apply Primostick border with a brush, and light cure. After the bonder is light cured, adapt the Primosplint rod onto the matrix and follow steps 2 through 8.