

Dentsply Sirona introduces new 3D Printing resins for production of flexible splints with Primeprint

With Primeprint Splint SF, Primeprint Splint ST and the Material Unit Type S Dentsply Sirona is introducing new treatment solutions utilizing 3D printing with the Primeprint Solution. Dental professionals now have a broad range of materials for nightguard, splint and repositioner treatments available to be produced quickly and easily in the dental office and dental laboratory.

Charlotte, NC., November 20, 2023. Dentsply Sirona, the world's largest manufacturer of professional dental products and technologies, enhances the range of applications for its Primeprint Solution with additions to its resin portfolio. The new resins Primeprint Splint ST and Primeprint Splint SF have now been FDA and CE cleared. With those Dentsply Sirona answers the needs of dental professionals to fabricate patient-specific nightguards and splints for a variety of treatments that fit precisely and provide a high level of biocompatibility and supports them to advance with confidence. These splints are increasingly called for in dental practices¹, for example by patients with bruxism.

Manufacturing these nightguards with Primeprint Solution offers users numerous advantages in addition to the high degree of automation of the Dentsply Sirona 3D printing system. With a new innovative Primeprint Material Unit Type S and application specifically developed print processes the new splint solution reduces much of the manual work that would otherwise be necessary, such as time-consuming polishing. The results are already shiny after the post curing process and can be easily detached from the support structures.

Primeprint Splint ST and Primeprint Splint SF resins allow to be printed with thin wall thickness – starting at 0.8 mm. They provide different degrees of hardness and flexibility and can thus be selected according to the indication and the patient's needs. To provide an optimal patient wear comfort they are free of MMA, THF-MA and TPO², allowing a neutral taste and scent.

Simplified workflows with Primeprint Solution

The new resins are designed to be used in the Primeprint 3D printing system within various workflows. Dental professionals have the option to design themselves using inLab Software, order the design from DS Core Create or order it from their preferred dental lab. When using DS Core Create design services, the splint design is provided within the turnaround time of six hours as a ready-to-print-file. This allows for immediate production, making it easy to delegate the workflow to the practice staff.

"Thanks to the new splint solution, I can now offer expanded indications for my patients with 3D printing," explains Dr. Meena Barsoum, dentist from Arlington (USA), one of the first users of the new Primeprint Splint ST and Primeprint Splint SF resins. "I love how easy it is to remove the support structures after the automated post-processing in the PPU, and my patients appreciate both the wearing comfort and the esthetics."

"This innovation is another step toward advancing automated 3D printing in practices and laboratories," says Max Milz, Group Vice President Connected Technology Solutions at Dentsply Sirona. "So dental 3D printing is once again proving to be a highly attractive technology that is particularly suitable for fabricating non-permanent removable applications such as splints, surgical guides and models and seamlessly complements existing methods."

For more information please visit:

<https://www.dentsplysirona.com/en/discover/discover-by-brand/primeprint.html>

¹[Dental Night Guard Market Report | Global Forecast To 2028 \(industrygrowthinsights.com\)](#)

²Methyl methacrylate (MMA), tetrahydrofurfuryl methacrylate (THF-MA) Thermoplastic polyolefins (TPO)

IMAGES

available for **Download** on the website.



Fig. 1: The new Splint solution enables a high gloss result already after the printing process



Fig. 2: Dentsply Sirona is adding two more materials to its existing Splint portfolio



Fig. 3: 3D printing with Primeprint Solution provides a high level of automation and the innovative materials.



Fig. 4: Dr. Meena Barsoum, dentist from Arlington (USA)

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About Dentsply Sirona

Dentsply Sirona is the world's largest manufacturer of professional dental products and technologies, with over a century of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices under a strong portfolio of world class brands.

Dentsply Sirona's products provide innovative, high-quality and effective solutions to advance patient care and deliver better and safer dental care.

Dentsply Sirona's headquarter is located in Charlotte, North Carolina. The company's shares are listed in the United States on NASDAQ under the symbol XRAY.

Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.