



## Ultradent's Vigilance with BPA

Thank you for your concern about Bisphenol-A and dental sealants. From the outset, it is important to mention that Bisphenol-A in significant quantities is harmful.

A 1996 study known as the "Granada" study\* brought up many questions about Bisphenol-A in dental sealant materials. This study concluded that Bis-GMA dental products should be questioned for their potentially harmful release of Bisphenol-A. There were many problems with this study. One of the more important ones related to how the authors mistakenly lumped the Bis-GMA composites together with the only sealant tested, Delton,\*\* which isn't a Bis-GMA sealant, but rather Bisphenol-A dimethacrylate. Such a resin can have a much greater propensity to contain or re-lease Bisphenol-A than a quality Bis-GMA resin.

Whether or not the manufacturers of the Bis-GMA composites included in the study were using the most pure form of Bis-GMA raw material available is not known. However, they showed almost undetectable evidence of Bisphenol-A release, even with testing at extreme temperatures and pH levels (extremes never found in the oral cavity). The same wasn't true for the Bisphenol-A-dimethacrylate-based sealant. To lump Bisphenol-A-based sealants with Bis-GMA sealants categorically is scientifically not sound. To extrapolate their finding to all sealants on the market is simply wrong. Unfortunately, this study became a reference for many sealant-related studies that followed.

Bis-GMA is a material that has been widely used by many dental manufacturers since the 1960s. And, it is known that some less-than-pure Bis-GMA can contain trace quantities of Bisphenol-A. Ultradent has chosen to work with a quality Bis-GMA supplier who assures us that there isn't even a measurable trace of Bisphenol-A impurity. In order to have additional assurance, we tested our Bis-GMA material with a quality outside laboratory with the same results. Furthermore, it is important to realize that Bis-GMA resin is very stable as an uncured monomer and increases in stability when polymerized.

Ultradent does not use, nor do we plan to ever use, Bisphenol-A dimethacrylate in any of our resin products including our Bis-GMA-based pit and fissure sealant, UltraSeal XT® plus. A flowable composite sealant with 58% filler loading weight to weight, UltraSeal XT plus contains the same level of filler loading found in most microfills (for example Silux\*\* and Durafil\*\*).

I hope that the information in this letter addresses your concerns. Thank you for the opportunity to answer your questions regarding Bisphenol-A.

Sincerely,

Dan E. Fischer, DDS  
President/CEO of Ultradent Products, Inc.

\*Olea N, Pulgar R, Pérez P, Olea-Serrano F, Rivas A, Novillo-Fertrell A, et al. 1996. Estrogenicity of resin-based composites and sealants used in dentistry. *Environmental Health Perspectives* (104, 3, pp. 298–305).

\*\*Delton, Silux, and Durafil are not trademarks of Ultradent Products, Inc. It should also be noted that the Delton sealant available today does not contain Bisphenol-A dimethacrylate.