With today’s focus on highly cosmetic dental restorations and appliances, material selection for removable partial dentures is of the utmost concern when it comes to patient satisfaction. The demand for function and aesthetics is constantly growing. Patients want to wear a partial denture that is functional, natural looking and one that does not look like a denture. For instance, when a patient requires a transitional acrylic partial, a non-functional, unaesthetic partial with wrought wire clasps, brittle acrylic, and cheap non-anatomical denture teeth are not the norm anymore. Clinicians and technicians are now presented with more quality choices for removable partial design than ever before.

An ideal choice for cosmetic clasps on metal frameworks, acrylic partials and clasp replacement on repairs is the Itsoclear clasp system from Keystone Industries. The Itsoclear clasp provides the ability to make a clear clasp in less than 4 minutes. This clasp can be fabricated without the use of expensive equipment and the clarity of the clasp reveals the natural shade of the underlying tooth making it virtually invisible.

The following actual case is an acrylic partial, which can be utilized in both a long or short term partial denture solution. In many cases dentists prescribe acrylic or transitional partials during long term implant case planning or because patients cannot tolerate metal partial frameworks and even when a less expensive alternative is in order. We are going two steps further with this particular case because the acrylic partial will be cured in one of the best denture base materials on the market, Diamond D Acrylic, and with cosmetic wear resistant MFT denture teeth by Vita.

The first step is to fabricate the Itsoclear clasps (Fig. 1). This case will require two clasps, a clasp on tooth #5 and another on tooth #12. Warm the clasp over a Bunsen burner or alcohol torch to make it pliable (Fig. 2) and then adapt to the desired tooth. Some technicians use a 3 prong pliers, but I find it easier and faster using my fingers to form the claps (Fig. 3). After the clasps are formed around the buccal of the tooth a retention loop must be formed so the clasp can be processed and retained in the acrylic. Cut off the excess clasp material, heat over a flame and create a loop. Clasp can be adjusted by adding more heat from the alcohol torch or burner (Fig. 4). Lay the clasp against the tooth and put a few drops of wax over loop to hold clasps in place on the model (Fig. 5). After both clasps are formed, we are ready to move forward with the denture tooth set up.

On this case, the patient may be undergoing some extensive dental work during the upcoming months. The patient has crown and bridge restorations, which are not in the best of shape. The patient is still deciding for the future whether to go with implants and attachments and a milled bar, a partial denture with attachments, or to just add teeth as needed to the acrylic transitional partial. If the underlying teeth were sound, then my choice would be new crown and bridge restorations with appropriate attachments for a partial denture.

When selecting denture teeth for any case we must be sure that the teeth will be both functional and aesthetic. I used Vita MFT teeth for this case because they fall into the category of a midrange denture tooth set up. The Itsoclear clasps can be tapered with a small carbide bur. I have tapered the tips of the clasps for a more intimate fit against the interproximal of the teeth.

Looking at the finished case, you can easily see the high-end cosmetic quality of the acrylic transitional partial (Fig. 13, 14, 15, and 16). With the combination of Itsoclear clasps, Diamond D acrylic and Vita MFT teeth, the end result of this case provided the ultimate goal: patient satisfaction.

Dennis Urban, CDT

ABOUT the AUTHOR

Dennis Urban CDT has worked in the dental technology field for more than 37 years. He owned and operated a full service lab on Long Island, New York for many years. He has lectured to and trained dentists and technicians worldwide since 1985 on many areas of dental technology, including denture setups, linguized occlusion, denture processing, implant overdentures, shade communication, soft lines, infection control, and porcelain staining. His technical articles have been published numerous times in many dental publications in the U.S., Canada and Europe. Dennis Urban has been Vice President of both the Long Island Dental Laboratory Association and the Dental Laboratory Association of the State of New York. He was a Cal Lab board member and a delegate for the NADL. He was the recipient of the 2007 NADL Excellence in Education award and a nominee for the 2012 NADL Educator of the Year and a nominee for 2012 and 2013 NADL CDT of the Year. Dennis has been a Technical and Sales Director for various dental manufacturers and is currently the Sr. Account Manager and Prosthetic Specialist for Vident.