

Multi-coloured mouthguard foils

By Peter Herring, Adv Dip Dent Tech, ACCDP



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The availability of coloured mouthguards has been one of the most significant milestones in mouthguard development over the last 25 years. Although the invention of the custom lamination technique may have addressed many outstanding technical and performance issues, it was colour which sparked the imagination, helped to give mouthguards some much needed “fun factor” and increased their acceptance and usage amongst the sporting public.

Nowadays, it is hard to imagine that mouthguard foils were once only readily available in clear.

Choice/Cost/Time

Consumers can now choose from many different pre-made mouthguard foils in plain colours, fluorescents, multi-colours, mixed combinations, etc.

These custom colours can pose a problem for the mouthguard manufacturer however. With one of the most popular requests being for club colours or special colour combinations, which usually consist of 2 or 3 colours in a single foil that most closely match the club logos or emblem. Non-stock custom made EVA foils are then required.

While most material suppliers can provide these custom foils to the manufacturers specifications, freight and time costs can quickly render the exercise expensive and inefficient, particularly if only a small quantity of foils are required.

In-house assembly

One solution is to assemble your own multi-coloured foils as required in-house. Taking this approach allows you to operate with reduced material stock holdings, save money in freight and ordering costs as well as provide a more timely service to your clients.

The same method which allows two EVA foils to laminate to form a mouthguard is used to weld the

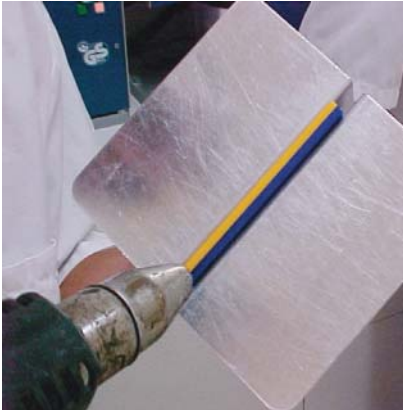
different coloured foils i.e heat. This simple procedure is described below, allowing quick and reliable production of EVA foils with as many colours as required whenever they are needed.



Step 1. Cut a compatible EVA foil to a neat straight edge and align the edges in the heat protection angles.(Erkodent Part no. 19 90 00). The heat protection angles are not essential but allow for much greater control and comfort.



Step 2. Use an EVA degreaser to decontaminate the surfaces to be joined (Erkodent Part no. 61 30 50). This step is important to ensure a reliable bond!

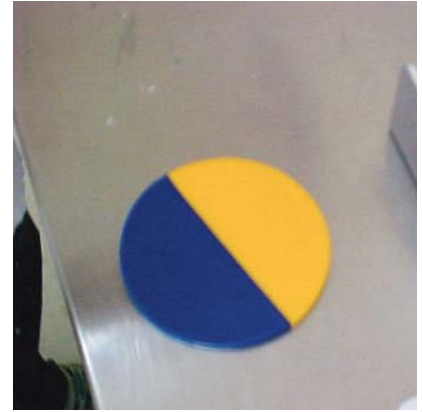


Step 3. Using a commonly sourced heat gun, pass over the joint surface approximately 3 times or until the surface is glossy. Any heat gun will provide enough energy for this process. What is critical is not to over heat the material - this will cause oxidation and prevent a bond (much like metal welding). When the surface has just turned glossy it is ready to join. **NEVER** use flame for this process!



Step 4. When the heat protection angles are removed, the joint will be “hinged” at the sides which were touching. Fold and close the edges together. Place on a clean bench and apply pressure with one surface of a heat protection angle and allow to cool before using.

Step 5 (above right). Your custom foil is ready for thermoforming!



About the author

Peter Herring is a dental technician and prosthetist based in Perth, Western Australia. He is a regular contributor to eLABORATE on thermoforming and is the Australian agent for Erkodent thermoforming machines. He also runs a busy laboratory dedicated to thermoformed appliances. For more info, please call 1800-242-634 or pjh@erkodent.com.au