



British Institute  
of Dental & Surgical  
Technologists

# CPD Article

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Proud of our History, Looking Forward to the Future

# New Eco-friendly Modelling Waxes

## Learning Objectives

By reading this article you will learn:

- The properties of the ideal modelling wax
- The benefits of Kemdent's New Anutex Eco.

**Some new users highlight the properties of the ideal modelling wax and the benefits of Kemdent's NEW Anutex Eco in particular.**

Peter Smith, Elm Dental Laboratory, Wisbech, and James Michael, Pinewood Dental Laboratory, Aberdeen, are just two of the Technicians who have recently started using Anutex Eco within their Laboratories. This article highlights the features and benefits of the ideal modelling wax and why they believe Kemdent's NEW Anutex Eco fulfills them all.

Using the right modelling wax can be the difference between your ability to provide your clients with the dentures they want and expect or not. It can also be the difference between a more relaxed working life for you, with real job satisfaction, or real frustration.

It is generally accepted that the properties of an ideal modelling wax are as follows:-

- High strength and rigidity at mouth temperature

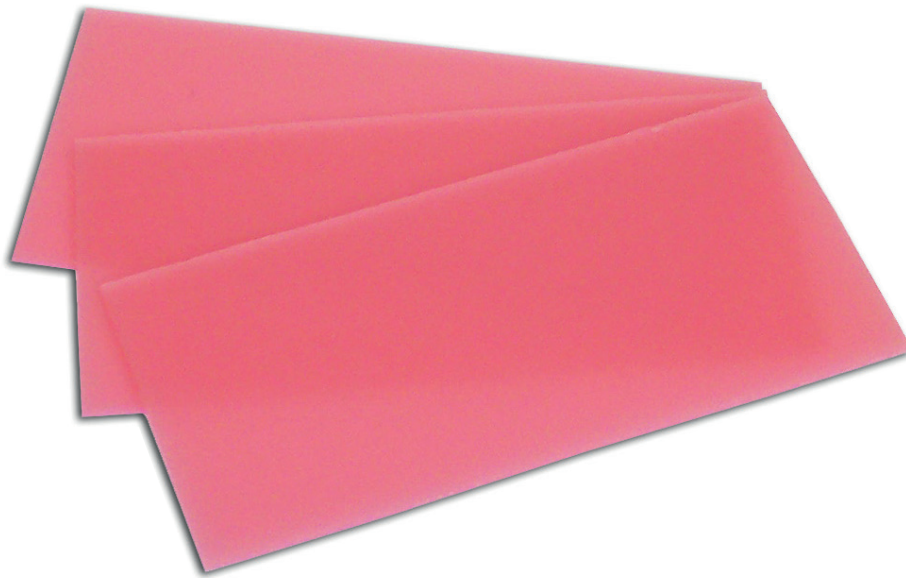
- Wide softening range above mouth temperature - ideally it should have a primary softening temperature of between 35°C and 41°C
- Easily mouldable in the softened state, without flaking, cracking or tearing
- Low thermal contraction
- Easily carved at room temperature without flaking or chipping
- Little change in properties on melting and re-solidification
- Supplied in sheets of consistently reliable thickness - 1.5mm thickness is the industry average, which is the optimum thickness for the palate of the final denture
- No residue on boiling out
- Appropriate colour - though this is a matter of opinion for both a Technician and Dentist
- Good value for money

If a modelling wax has the above thermal properties, it will remain stable so that it does not distort in the patient's mouth or during transport to and from the surgery. Whereas a seemingly less expensive wax which deforms at mouth temperature can

end up costing you money in terms of lost time, for example readapting inaccurate bite registrations or distorted wax try-ins etc. Other factors to consider are whether the teeth stay in place after the wax has cooled down. With less stable modelling waxes this is often not the case, resulting in more lost time. Similarly, are the teeth easy to reposition? This will be the case with a more stable material, but not necessarily with others.

Another important quality is the modelling waxes' response to pin-flaming and polishing afterwards. Premium quality waxes will pin-flame extremely well, taking on a very smooth appearance. This results in a high quality finish, which can then be buffed up using cotton wool and cold water for enhancement, giving a brilliant mirror-like finish.

Associated Dental Products have been manufacturing their premium quality Anutex and Tenatex modelling waxes since 1922. Now they have extended their range of modelling waxes with the introduction of their NEW Anutex



Eco and Tenatex Eco ranges. These products were developed to offer a more ecologically-friendly alternative to their tried and trusted Anutex and Tenatex modelling wax ranges. They offer very similar handling and mechanical properties, but with much more ecologically-friendly manufacturing processes, processes that save over 30% of energy consumption.

#### How have they achieved this?

Modelling waxes are surprisingly expensive to manufacture because the process consumes a large amount of energy. However, Associated Dental Products Limited, Swindon, have been collaborating with the Manufacturing Advisory Service (MAS) and the Improve Your Resource Efficiency Service (IYRE) to develop a more ecologically-friendly way of manufacturing modelling waxes. Utilising their wax manufacturing expertise and energy efficiency funding secured from the IYRE, the result has been the new Anutex Eco and Tenatex Eco ranges, which they believe are the world's first eco-friendly ranges of modelling waxes. Consuming 30% less energy to manufacture, they believe they are not only better for the world's environment, but will also enable them to offer an even more competitively priced product range, whilst retaining the high standards

of their market leading Anutex and Tenatex modelling waxes in terms of physical and handling properties.

#### What do your colleagues think?

Having evaluated Anutex Eco for several months, this is what Peter Smith and James Michael said about Anutex Eco.

Peter Smith said, "I started using Anutex Eco in June, having previously used Anutex. I like Anutex because it is a smoother wax to use, warming easier than most other waxes. It is very easy to carve and not at all sticky to handle. I find that the new Anutex Eco is slightly softer and less rigid than Anutex, which I think is an extra advantage. It also softens at a slightly lower temperature, which is

another benefit. I've been told by Dentists that it is easier to heat the bite blocks, which saves them time. I also find it easier to mould and carve, which is another big advantage because of the time I save. However, the thermal contraction properties and consistency appear to be about the same, which means that there is no loss of stability and my set-ups don't drift as the wax cools down, again saving me valuable Laboratory time and inconvenience. It also boils out cleanly, without leaving any residue. Finally, I really like the pink shade of Anutex Eco, which is in fact virtually the same shade as Anutex, because it is not too red, which I've heard some patient's find disturbing because they think their final dentures will have the same unnatural appearance."

James Michael said "I previously used to use Anutex (Blue Label), but started using Anutex Eco in June. I find it is slightly softer, which I think could be a significant advantage in the winter, otherwise both products are very similar regarding the softening range of temperatures, mouldability, thermal contraction properties, consistency, thickness of sheets, boiling out properties and shade."

For further information on Anutex Eco or Tenatex Eco please contact Kement on 01793 770090 or visit [www.kement.co.uk](http://www.kement.co.uk)



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Q1.) Name three of the generally accepted properties of an ideal modelling wax?

Q2.) What is the primary softening temperature of the ideal modelling wax?

Q3.) What is the industry average thickness of a modelling wax sheet?

Q4.) In what year did Associated Dental Products start manufacturing their premium quality Anutex and Tenatex modelling waxes?

Q5.) Approximately what % of energy is saved manufacturing their ecologically-friendly Anutex Eco and Tenatex Eco modelling waxes?

Q6.) Name the two organisations that Associated Dental Products collaborated with in order to develop Anutex Eco and Tenatex Eco?

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