



British Institute  
of Dental & Surgical  
Technologists

# CPD Article

ISSUE 27

Proud of our History, Looking Forward to the Future

This learning session has been judged as being equivalent to one hour of verifiable CPD. To claim your verifiable CPD you will need to answer the questions at the end of this article and submit them either by email to [secretary@bidst.org](mailto:secretary@bidst.org) or by post to the BIDST Membership Office 44-46 Wollaton Road, Beeston Nottingham NG9 2NR. You will also need to keep a copy of the article together with your feedback sheet and certificate for revalidation.



## Excellent dentures in a short time

When making only a few dentures at a time, there is a technique that can significantly speed up the process. Using duplicating gel and pouring acrylic produces high quality, well fitting dentures. This method also reduces the amount of plaster work needed and can create less mess than conventional techniques.

Although not often used in the UK, this method of creating dentures is very common in Continental Europe and beyond.

Clinical Dental Technician at Midhurst Dental Laboratory, Steve Eykyn explains, "As with other denture making procedures, the process starts with trimming down the plaster model and preparing it for investing in duplicating gel. We raided Granny's kitchen at this point, and found an old-fashioned mincer, which is excellent at giving the gel a nice, even texture."

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The minced gel is put in the microwave for four or five minutes, depending on the wattage. Once the gel has cooled to the required temperature, which is dependent on what type of gel is being used, the model is placed in a duplicating flask.

Steve adds, "Once the gel has been poured over the try-in in a duplicating flask, it should be left to stand in cold water until completely cool. The flask is then opened and the model is removed from the jelly mould. We have found that using some compressed air helps to lift out the model easily."

The teeth are then placed in a tooth sieve and flushed with boiling water. The model is also flushed with boiling water and then soaked in cold water for approximately ten minutes. Steve says, "Next we cold mould seal the model and roughen up the teeth before placing them back into the gel mould. Sprue channels are cut into the gel to allow for the acrylic to be poured in. Then, we wet the surface of the teeth with Palabond and place the model back into the gel mould, with the teeth in place. The mould is now ready for the pouring of acrylic."

PalaXpress ultra is a high performing pourable cold cure acrylic. It is strong, stable and durable, while remaining flexible. It has high fracture resistance, lasting colour stability and certified biocompatibility. Steve says, "We find Heraeus Kulzer acrylic to be one of the best denture bases we have used, due to its strength and durability."

After the acrylic has been poured in, the mould is placed into a Palamat polymerisation unit for the required time. Once cured, the dentures are easily removed from the gel.

Steve concludes, "We find that with this method the dentures come out very clean with no plaster or debris on them, and they are a really good fit. This is an easy technique and useful when you need to produce excellent dentures in a short time frame."

"As a Clinical Technician I fit the dentures and see patients returning for review appointments. I believe that the finished results are second to none. They are as good as any produced by longer and more expensive procedures."



Image 1: Mincing the duplicating gel

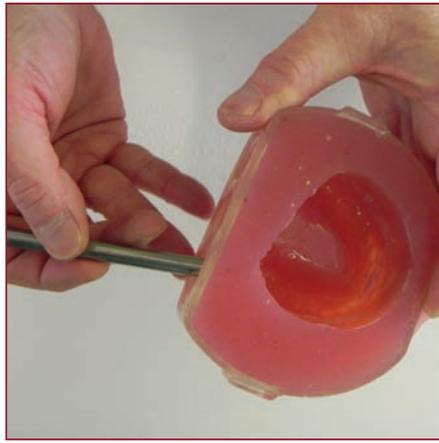


Image 4: Cutting sprue channels into the gel to allow the acrylic to be poured in

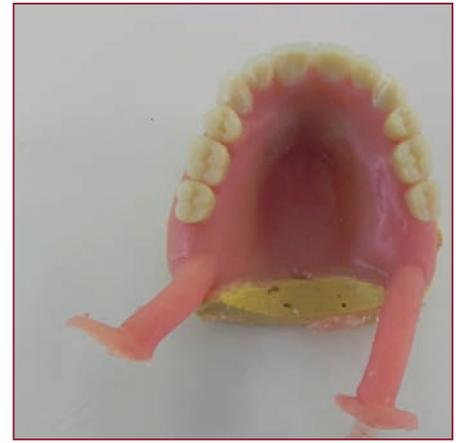


Image 7: The denture comes out very clean, with no plaster or debris attached



Image 2: Pouring the duplicating gel over the try-in in a duplicating flask



Image 5: Pouring the acrylic, ready to place into the palamat unit

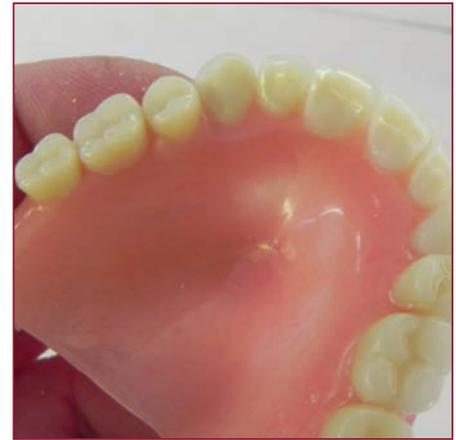


Image 8: The finished denture

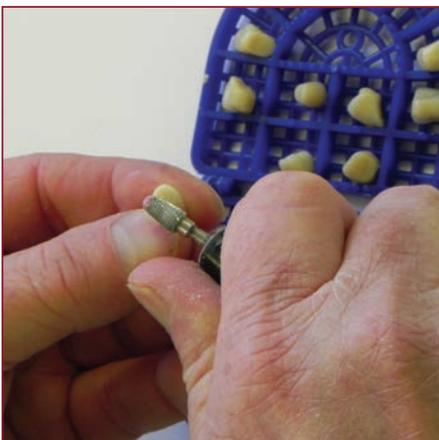


Image 3: Roughening up the teeth



Image 6: Removing the finished denture from the gel

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Q1.) How long is the minced gel put in the microwave for?

Q2.) What is the next stage in the process, after the gel has been poured over the try-in?

Q3.) What can be used to help lift the model out of the mould?

Q4.) Why are sprue channels cut in the gel?

Q5.) What is this technique useful for?

Name:

GDC Number:

Address:

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Telephone no: (in case of any queries)

Signed:

Date:



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