

Why are Kemdent Light-Cure Tray Blanks the special tray material of choice for Acodent Dental Laboratory?



Peter W. Smith, from Acodent Dental Laboratory, Bolton, describes the features and benefits of Kemdent Light-Cure Trays and provides some hints and tips for obtain optimum results with them.

Why do I use Kemdent Light-Cure Trays?

It is a simple fact of economics. In a busy commercial Dental Laboratory “time is money” and as the largest dental laboratory in the U.K., only materials that are the most cost-effective are suitable for use in the highly competitive market we find ourselves in today. Kemdent provide us with that material.

The advantages of Kemdent’s Light-Cure Trays are many:-

- In comparison with other special tray materials it is remarkably easy to use
- It has an indefinite working time
- It is non-sticky and easy to adapt
- It does not slump – even when forming the handle
- It is easy to trim
- There is virtually no wastage – extremely cost-effective
- It can be light-cured with either UV or halogen light – there is no requirement for expensive dedicated light-curing equipment
- It cures in just five minutes
- It is extremely rigid and dimensionally stable – eliminating the risk of “hidden distortion” during the impression taking procedure and consequent errors, disputes and costs
- It is exceptionally strong, even in thin sections, - again eliminating the risk of hidden distortions etc

Traditional self-cure acrylic special tray materials are much more difficult to use and generally take considerably longer to fabricate. They are not as easy to trim in the ‘dough’ stage. Also, there is a certain amount of material wasted in the process which, unlike Kemdent’s Light-Cure Trays, it is impossible to re-use. Finally, self-cured acrylic special trays are much less

rigid and far less dimensionally stable particularly in thinner sections.

The ease and speed with which special trays can be fabricated, using Kemdent Light-Cure Trays, means that they are the only special tray material that fits the very high criteria demanded by Acodent Dental Laboratory.

To ensure optimum results we always follow Kemdent’s directions for use for their light-cure tray blanks.

Six simple steps to produce a Kemdent Light Cured Special Tray.

1: Prepare the model properly (figure 1)

Ensure any undercuts are sufficiently blocked out. Then soak the model in water to prevent the wax spacer and Kemdent Light-Cure Tray material from sticking to the model.



Figure 1 – outline of tray marked on model using a pencil.

It is a good idea at this stage, too, to mark the centre of the model with a pencil before adapting the wax spacer, this will make it easier when attaching the tray handle.

2: Apply the wax spacer and trim away any excess (figure 2) .



Figure 2 – adapt a wax spacer to the model to allow space for the impression material.

3: Adapt Kemdent Light-Cure Tray material and remove any excess with a wax knife or other suitable instrument (figure 3) . Some of the excess is used to form the handle (figure 4) which is then adapted onto the rest of the tray to complete it (figure 5) .



Figure 3 – Trimming off the excess Kemdent Light-Cure Tray material.



Figure 4 – Forming the handle from some of the excess.



Figure 5 – The completed tray, note how the handle does not slump.

4: Light-cure the tray for 5 minutes in a suitable light curing unit, either Halogen or UV light. Take the tray away from the light source and remove the wax spacer. You will find that the wax spacer is quite easy to remove from the tray and the model at this point. Return the tray only to the light source, upside down, and cure for a further 3 minutes.

5: Remove any excess material with a carbide bur (figure 6) . The tray can be smoothed off with a silicone wheel or point.



Figure 6 – After removing the wax spacer, finish off the margins with a carbide bur.

6: The finished Special Tray can be cleaned by either using boiling water or a steam cleaner to remove any residual wax and debris.

If desired, perforations can be made at this stage with an appropriate carbide bur (Figure 7)



Figure 7 – The finished tray complete with perforations and working model.

Peter Smith is the Managing Director of Acodent Dental Laboratory in Bolton. He trained as a Dental Technician in the 1950's, at which time he founded P.W.S. Dental Laboratory.

Kemdent Light-Cure Trays are manufactured in the UK by Kemdent Ltd. For further information contact Kemdent on 01793 770090 or visit www.kemdent.co.uk



If desired, perforations can be made at this stage with an appropriate pointed instrument.