



Instructions for use: Metrocryl

General notes on the use of Metrocryl X-Linked Denture Bases

Metrocryl Denture Bases can be used in exactly the same way as any other acrylic denture base. With carefully controlled cross linking has improved efficiency and better working qualities, but requires no change in the usual technique. **The Material must be stored in a cool, dry place. Avoid strong sunlight exposure and store below 25°C.**

1. Models. The excellence of fit and final appearance of the denture in the mouth is limited only by the accuracy and quality of the model. To obtain a good model use a good quality stone plaster and make sure that the mix is of the correct consistency. This is particularly important where the impression has thin ridges and where delicate tissue structure is involved.

2. Waxing. Care in waxing can save you valuable time in the final finishing. When using Metrocryl the gum work can be contoured and 'stippled' to resemble natural gums and such details will be faithfully reproduced. Where flat back porcelain teeth are used, bring the wax lightly up to lingual incisal tips of the teeth. This helps to obviate cracking.

3. Flasking. Use a stout, well fitting flask. We recommend you use the type that are designed so that the entire plaster block can be easily removed after processing.

Full Dentures. Trim model and invest in dental plaster, in the lower part of the flask. Use the inverted flasking technique and bring the dental plaster just up to the gum margin. Do not cut escape gates, and avoid thin plaster edges. Use separating medium on the plaster surfaces and pour the top, placing the flask in a bench press until the plaster has set. Remove the flask from the press and place it in boiling water for 5 minutes (do not boil the flask). Allow the flask to stand for 5 minutes and then open. The softened wax can now be removed. Any remaining traces of wax must be thoroughly removed from both plaster and teeth using clean boiling water.

Partial Dentures. These are invested as above or for packing through according to the type of denture in hand and the requirements for bands. When investing for packing through the denture in the flask (so that the teeth are solidly capped) with plaster on the outer periphery. In all cases the plaster must be scalded out thoroughly and allowed to cool and dry. When thoroughly dry apply plaster coating solution to the plaster surface. The plaster coating solution should not be applied to a wet plaster surface or one into which any residue of wax, oil or grease has penetrated. The plaster coating solution should be applied liberally and has no effect on teeth, whether they be acrylic or porcelain.

4. Mixing. It is essential that the liquid is completely saturated with powder, hence the following procedure should be followed. Use a mixing vessel of porcelain, glazed earthenware or glass with a well fitting cover. An estimate of the quantity of material required is made and the liquid is added to the mixing vessel, maintained at 23°C if possible. Add the powder to the liquid (**never add liquid to powder**). Pour the powder into the liquid in a slow steady stream until all the liquid is absorbed and a surface of dry powder appears. Smack the mixing vessel vigorously with the palm of the hand until all the powder is absorbed and free liquid is brought to the surface. Add more powder and repeat until excess powder remains on the surface. Pour off this excess powder and mix well by using a metal spatula for 1 to 2 minutes. Cover the mixture and allow to stand until the correct plastic condition has developed. The dough will be sticky in its initial stages but will soon become non-sticky. It is exactly right when it comes away cleanly from the mixing vessel. It can be handled without sticking to the skin of the hand and breaks with a distinct snap. At this stage the broken pieces will readily join together under slight pressure. If the dough stage is unduly prolonged the dough will become tough and two pieces will not join when pressed together. If this point is reached it is not advisable to use the dough as it will be too tough to mould correctly in the flask.

5. Packing. Use a cold flask (23-25°C) this assists the easy flow of the dough. Make sure that the hands are absolutely clean and completely free from grease, work the dough into a ball for upper dentures and roll for lower dentures. Press the mixture into the tooth half of the mould deliberately using excess of material. Cover with polythene or moist cellophane and make a trial closure. Apply pressure very slowly and close the flask to within about 1.5mm of complete closure. Remove flask from press, open and remove the polythene/cellophane, trim off the flash to the edge of the denture adding dough to any area that requires it. Give the model surface a second coat of plaster coating solution and close the flask. Again apply pressure very slowly and this time close the flask completely as this reduces the possibility of raised bites.

6. Processing. It is advisable to leave the flask in the press for at least 15 minutes, Metrocryl will continue to flow during this time and any risk of porosity is minimised. The denture base must be under constant pressure during curing and consequently pin flasks are not recommended unless continuous care is taken to ensure that the pins are driven well home. Use a compressor flask or a compressor device to maintain pressure during the cure. Remove the flask from the boiling water and allow to cool on the bench for 20/30 minutes (L.W.T and Original), 10 minutes (Universal and Rapid Cure). Only after bench cooling should the flask be placed into cold water for final cooling. As an alternative the overnight standard cure may be used.

7. Deflasking. Ensure that the flask is quite cold before opening, remove the plaster block in one piece and then make a series of saw cuts at intervals to permit the piecemeal removal of the plaster. The whole operation of deflasking must be carried out with great care as considerable damage to the denture can result from carelessness at this stage. **Do not lever the denture out.**

8. Finishing. The correct use of plaster coating solution and careful attention to waxing will produce a clean smooth surface requiring very little finishing. Acrylic dentures can be finished accurately with abrasive stones and sandpaper. Polish with pumice, whitening or polishing soap in the usual way. To avoid any scoring or discolouration it is essential that the brushes be kept wet during polishing operations.

9. Repairs. For standard 'hot' cured repairs the preceding instructions for processing should be followed. **Complete and incomplete fracture.** Assemble the parts of the denture and cast a model using denture plaster in the normal manner. Ensure the fracture lines are opened up with clean edges, it is not necessary to cut dovetails. **Tooth replacement.** Ensure the tooth cavity is clear of and debris and slightly enlarge the cavity to take replacement polymer. **Cold cure repairs.** Using the same methods as above an autopolymerising resin can be used. This will eliminate flasking in plaster. Best results are obtained curing the autopolymerising resin under pressure using a hydroflask. Mixing instructions will be supplied with the resin.

Metrocyl X-Linked Denture Bases

Metrocyl X-Linked Denture Bases have been specially developed for use with either porcelain or acrylic teeth and are guaranteed to conform to BS EN ISO 1567. The modern technique of producing solvent resistant acrylic teeth by careful control of cross-linking factors has emphasised the need for an equally solvent resistant denture base. This need is now met by Metrocyl X-linked Denture Bases which produce a denture that is resistant to common solvents used in the dental laboratory. It is also resistant to alcohols, fruit drinks and proprietary brands of denture cleaners.

The introduction of a cross linking factor has improved the flow qualities, during the dough stage, enabling the technician to work with less haste and greater precision. The result is a denture that reproduces the most delicate detail of the model with remarkable accuracy.

The final denture is almost craze resistant and will retain a high quality of resilience throughout its life. The likelihood of a fracture to the prosthesis is greatly reduced and consequently Metrocyl X-Linked Denture Bases are recommended for partial and orthodontic work.

CAUTION

Metrocyl liquid contains Methyl Methacrylate Monomer. This is highly flammable and should be kept away from sources of ignition.

NO SMOKING

It is irritating to the eyes, respiratory system and skin. It may cause sensitisation by skin contact. Prolonged skin contact with unpolymerised dough and inhalation of Methyl Methacrylate vapour must therefore be avoided. The container must be kept in a well ventilated place.

DO NOT EMPTY INTO DRAINS

Take precautionary measures against static discharges. Wash hands with soap and water after use. In case of accidental eye contact, wash with plenty of water and seek medical attention.

Metrocyl X-linked Denture Bases are available in the following types:-				
	Universal	Rapid Cure	Long Work Time	Original Settings
Dough Time	(snap stage) at average room temperature (23°C) approximately 20 minutes.	(snap stage) at average room temperature (23°C) approximately 30 minutes.	(snap stage) at average room temperature (70°F/21°C) approximately 12 to 15 minutes.	(snap stage) at average room temperature (70°F/21°C) approximately 25 to 35 minutes.
Work Time	At least 1 hour	Approximately 25 to 30 minutes	Approximately 1 hour	Approximately 15 to 20 minutes
Mixing Ratio	By weight take 27g of polymer to 10ml of liquid. For average sized dentures start with 7ml of liquid and add 18.9g of powder.	By weight take 25g of polymer to 10ml of liquid. For average sized dentures start with 7ml of liquid and add 17.5g of powder.	By weight take 25g of polymer to 10ml of liquid. For average sized dentures start with 7ml of liquid and add 17.5g of powder.	By weight take 25g of polymer to 10ml of liquid. For average sized dentures start with 7ml of liquid and add 17.5g of powder.
Cure Time	Normal dentures:- Immerse in boiling water for 20 to 25 minutes. Heavy dentures:- Take 20 minutes to raise form cold, boil for a further 10 to 15 minutes.	Normal dentures:- Immerse in boiling water for 20 to 30 minutes. Heavy dentures:- Bring to the boil from cold, then cure for 20 to 30 minutes.	Normal dentures:- Immerse in cold water bring to the boil and cure for 1 hour Heavy dentures:- Adopt procedure as for Metrocyl "Original settings".	Immerse in cold water and slowly raise the temperature, preferably in two stages, to approx 60°C in the first half hour, then slowly to boiling point in the next half hour. Simmer for a further half hour.
Colour	All types are available in standard Pink, Natural, Translucent, Veined and Clear			