

POLITEKNIK KESEHATAN TANJUNGPINANG
JURUSAN TEKNIK GIGI

Laporan Tugas Akhir, Juni 2025

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Pembuatan Flexy Denture Termoplastik Akrilik Unilateral Free End Rahang Bawah Dengan Kasus Ekstrusi Gigi 17.

xviii + 40 Halaman + 42 Gambar + 2 Tabel + 6 Lampiran

RINGKASAN

Gigi tiruan sebagian lepasan adalah protesa yang menggantikan beberapa gigi yang hilang dan jaringan sekitarnya serta dapat dilepas pasang oleh pasien. Penulis mendapatkan kasus tentang pembuatan gigi tiruan sebagian lepasan termoplastik akrilik *unilateral free end* rahang bawah pada kehilangan gigi 47 dengan ekstrusi gigi 17.

Tujuan penulisan laporan tugas akhir ini adalah untuk mengetahui kelebihan dan kekurangan GTSL termoplastik akrilik, desain, cara pemilihan dan penyusunan elemen gigi, serta kendala dan cara mengatasinya agar didapatkan retensi, stabilisasi, dan oklusi yang baik.

Prosedur pembuatan dimulai dari persiapan model kerja, *surveying*, *block out*, *duplicating*, *transfer* desain, pembuatan basis, penanaman model kerja pada okludator. Selanjutnya pemilihan dan penyusunan elemen gigi, *wax contouring*, *flasking cuvet* bawah, pemasangan *sprue*, *flasking cuvet* atas, *boiling out*, pembuatan lubang *diatoric*, *injection*, *deflasking*, *cutt of sprue*, *finishing*, dan *polishing*.

Hasil, protesa sesuai desain, *fitting* pada model kerja dengan oklusi cukup baik, basis halus mengkilap. Inseri ke pasien, bagian cengkeram sedikit longgar, oklusi baik, dan pasien mudah melepas-pasang gigi tiruan. Simpulan, kelebihan protesa ini adalah kekuatan lebih baik, basis lebih tipis dan warna lebih menyatu. Kekurangannya, elemen gigi bisa lepas karena retensinya secara mekanis menggunakan lubang *diatoric*. Desain basis menggunakan *unilateral* dengan *main clasp* pada gigi 45 dan 46. Elemen gigi menggunakan warna A3,5 dengan ukuran 34 (sedang). Penyusunan gigi 47 normal. Kendala, saat *fitting* pada model kerja, cengkeram bagian *cervico-buccal* 45 dan *cervico-lingual* 44 dan 45 sedikit *open*. Saran, pada saat *finishing* pengurangan dilakukan dengan hati-hati agar tidak *open* pada bagian servikal sehingga mengurangi retensi.

Kata Kunci : GTSL, Termoplastik Akrilik, Ekstrusi

Referensi : 24 (1991–2025)

TANJUNGKARANG HEALTH POLYTECHNIC
DEPARTMENT OF DENTAL TECHNOLOGY

Final Assignment Report, June 2025

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Fabrication Of A Unilateral Free End Lower Jaw Thermoplastic Acrylic Flexy Denture With Tooth Extrusion Case 17.

xviii + 40 Pages + 42 Figures + 2 Tables + 6 Attachments

ABSTRACT

A removable partial denture (RPD) is a prosthesis that replaces several missing teeth and surrounding tissue and can be removed by the patient. The author presented a case study on the fabrication of a unilateral free-end thermoplastic acrylic removable partial denture (RPD) in the mandible for the missing tooth 47 with extrusion of tooth 17.

The purpose of this final project report is to determine the advantages and disadvantages of thermoplastic acrylic RPDs, their design, methods for selecting and arranging dental elements, as well as the constraints and how to overcome them to achieve good retention, stabilization, and occlusion.

The manufacturing procedure begins with the preparation of the working model, surveying, block out, duplicating, design transfer, base creation, and embedding the working model in the occluder. Next, the selection and arrangement of the tooth elements, wax contouring, flasking the lower cuvet, sprue installation, flasking the upper cuvet, boiling out, diatoric hole creation, injection, deflasking, cutting of the sprue, finishing, and polishing.

The results showed that the denture conformed to the design, fitting to the working model with good occlusion, and a smooth, shiny base. The patient's insertion revealed a slight looseness in the clasp, good occlusion, and ease of insertion and removal of the denture. The advantages of this denture are its greater strength, thinner base, and more unified color. The disadvantage is that the tooth elements can become loose due to mechanical retention using diatoric holes. The base design uses unilateral main clasps on teeth 45 and 46. The tooth elements use A3.5 color with size 34 (medium). The arrangement of tooth 47 is normal. The problem is that during fitting to the working model, the clasp on the cervico-buccal surface of 45 and the cervico-lingual surface of 44 and 45 is slightly open. It is recommended that during finishing, the reduction be done carefully to avoid opening the cervical part, which would reduce retention.

Keywords : RPD, Thermoplastic Acrylic, Extrusion

References : 24 (1991-2025)