UNIVERSITAS
GADJAH MADA
Pengaruh teknik dan suhu post-curing pada pembuatan gigi tiruan cekat sementara menggunakan 3D-Printed terhadap modulus elastisitas
Santoso Filipus Cahya, drg. Murti Indrastuti, M.Kes., Sp.Pros.(K); Prof. Dr. Drg. Titik Ismiyati, M.S., Sp. Pros.(K)
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Albaqawi, AH., Aljanakh, MD., Alshammari, BN., Alshammari, MA., Alshammari, RH., Alshammari, GD., Alshammari, BZ., Alturki, RF., Madfa, AA., (2023) Quality of Fixed Dental Prostheses and Patient Satisfaction in a Sample From Saudi Arabia, *Cureus*, 15(12).

Andrzejewska, E., (2001) Photopolymerization Kinetics of Multifunctional Monomers, Progress in Polymer Science, 26(4) : 605–665. DOI: 10.1016/S0079-6700(01)00004-1.

Anusavice, KJ., Shen, C., Rawls, HR., (2013) *Phillips' Science of Dental Materials 12th ed*, Elsevier saunders, St. Lois, Missouri.

Bagheri, A., & Jin, J. (2019) Photopolymerization in 3D printing. *ACS Applied Polymer Materials*, 1(4), 593–611.

Bayarsaikhan, E., Lim. J. H., Shin. S. H., Park. K. H., Park. Y. B., Lee. J. H., Kim. J. E., (2021) Effects of Post-curing Temperature on the Mechanical Properties and Biocompatibility of Three-Dimensional Printed Dental Resin Material. *Polymers*; 13(8):1180. https://doi.org/10.3390/polym13081180

Britto, V., Cantelli, V., Collares, F., Bertol, C., Bona, A., (2022) Biomechanical Properties of a 3D Printing Polymer for Provisional Restorations and Artificial Teeth, *Dental Materials* Vol 38, 12: 1956-1962.

Bural, C., Aktas, E., Deniz, G., Unlucerci, Y., Kizilcan, N., Bayraktar, G., (2011) Effect of post-polymerization heat-treatments on degree of conversion, leaching residual MMA and in vitro cytotoxicity of autopolymerizing acrylic repair resin. *Dental Materials* Vol 27, 1135-1143

Chaudhary, R., Fabbri, P., Leoni, E., Mazzanti, F., Akbari, R., Antonini, C., (2022) Additive manufacturing by digital light processing: a review. *Progress in Additive Manufacturing* 8 (2), 331–351

Cheadle, A., Maier, E., Palin, W., Tomson, P., Poologasundarampillai, G., Hadis, M., (2025) The impact of modifying 3D printing parameters on mechanical strength and physical properties in vat photopolymerisation. *Scientific Reports* 15:12592.

Collins, F., Tabak, L., D'Souza, R., (2021) Oral Health in America Advances and Challenges, *Bethesda (MD) : National Institute of Dental and Craniofacial Research (US)*, Section 3A

UNIVERSITAS
GADJAH MADA
Pengaruh teknik dan suhu post-curing pada pembuatan gigi tiruan cekat sementara menggunakan 3D-Printed terhadap modulus elastisitas
Santoso Filipus Cahya, drg. Murti Indrastuti, M.Kes., Sp.Pros.(K); Prof. Dr. Drg. Titik Ismiyati, M.S., Sp. Pros.(K)
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Demiralp, E., Dogru, G., Yilmaz, H., (2021) Additive Manufacturing (3D Printing) Methods and Applications in Dentistry. *Clinical and Experimental Health Sciences*. Vol 11(1): 182–190.

Eladarosy, A., Helal, M., Baraka, Y., (2023) Modulus of Elasticity of Different Resin Denture Base Materials: A Comparative Study, *Al-Azhar Journal of Dental Science* Vol. 26 - No. 3-277:281

Elbishari, H., Elsubeihi, E.S., Alkhoujah, T., Elsubeihi, H.E., (2021) Substantial in-vitro and emerging clinical evidence supporting immediate dentin sealing, *Jpn. Dent. Sci.*, 57(2021): 101-110.

Field, J., Haycook, J., Boissonade, F., (2021) A tuneable, photocurable, poly(caprolactone)-based resin for tissue engineering-synthesis, characterisation and use in stereolithography, *Molecules.*

Gijsbers, K., Nicholson, F., (2005) Experimental pain thresholds influenced by sex of experimenter, *Percept Mot Skills,* 101:803–807.

Gonçalves, F., Fonseca, A. C., Domingos, M., Gloria, A., Serra, A. C., Coelho, J.F.J., (2017) The potential of unsaturated polyesters in biomedicine and tissue engineering: Synthesis, structure-properties relationships and additive manufacturing. *Prog. Polym. Sci*. 68, 1–34.

Guariza-Filho, O., de Araujo, C., Schroder Angela, G., Tanaka, O., Kern, R., Ruellas, A., (2018) Prosthetic, orthodontic and implant - supported rehabilitation of five maxillary anterior teeth with alveolar bone loss, *Dental Press Journal of Orthodontics*. 23(1):87-96

Jain, S., Sayed, M., Shetty, M., Alqahtani. S., Wadei. M., Gupta. S., Othman. A., Alshehri. A., Alqarni. H., Mobarki. A., Motiaq. K., Bakmani. H., Zain. A., Hakami. A., Sheayria. M., (2022) Physical and Mechanical Properties of 3D-Printed Provisional Crowns and Fixed Dental Prosthesis Resins Compared to CAD/CAM Milled and Conventional Provisional Resins: A Systematic Review and Meta-Analysis, *Polymers* 2022, 14(13).

JAMG HE 3D. (2022) Technical data sheet: Temporary crown & bridge resin. Shenzhen Jamg He Technology Co., Ltd.

Jehan, A., Chidambaranathan, A. S., & Balasubramanium, M. (2023). Application and trends in provisional dental restorative materials for fixed partial denture: An overview. Journal of Oral Research and Review, 15(1), 65–71.

Kadiyala., KK, Badisa., MK, Anne., G, Anche., SC, Chiramana., S, Muvva., SB, (2016) Evaluation of flexural strength of thermocycled interim resin

UNIVERSITAS
GADJAH MADA
Pengaruh teknik dan suhu post-curing pada pembuatan gigi tiruan cekat sementara menggunakan 3D-Printed terhadap modulus elastisitas
Santoso Filipus Cahya, drg. Murti Indrastuti, M.Kes., Sp.Pros.(K); Prof. Dr. Drg. Titik Ismiyati, M.S., Sp. Pros.(K)
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

materials used in prosthetic rehabilitation – An *in-vitro* study, *J Clin Diagn Res*; 10:ZC91–5

Kafle, A., Luis, E., Silwal, R., Pan, Hm., Shrestha, PL., Bastola, AK., (2021) 3D/4D Printing of Polymers: Fused Deposition Modelling (FDM), Selective Laser Sintering (SLS), and Stereolithography (SLA), *Polymers* 2021, 13(18), 3101

Katkar, RA., Taft, RM., Grant., GT, (2018) 3D volume rendering and 3D printing (additive manufacturing) *Dent Clin North Am*, 62:393–402.

Kim, D., Shim, JS., Lee, D., Shin, SH., Nam, NE., Park, KH., Shim, JS., Kim, JE., (2020) Effects of post-curing time on the mechanical and color properties of three-dimensional printed crown and bridge materials, *Polymers*, 12(11)

Kim, E., Park, E., Kang, S., (2022) Three-Dimensional Printing of Temporary Crowns With Polyactic Acid Polymer Using The Fused Deposition Modeling Technique: A Case Series, *J Yeungnam Med Sci* 2023; 40(3): 302-307.

Kim, E, K., Park, E, Y., Kang, S., (2023) Three-dimensional printing of temporary crowns with polylactic acid polymer using the fused deposition modelling technique: a case series, *J Yeungnam Med Sci* 2023;40(3):302-307

Lee, J., Ju, S., Kim, J., Hwang, S., Ahn, J., (2023) The Comparison of the Accuracy of Temporary Crowns Fabricated With Several 3D Printers and a Milling Machine, *J Adv Prosthodont*, 15(2): 72-79.

Lim, B., Kim, D., Song, J.S., Kim, S., Kim, H., Shin, Y., (2024) Influence of Post-Curing in Nitrogen-Saturated Condition on the Degree of Conversion and Color Stability of 3D-Printed Resin Crowns. *Dent. J.* 12(68): 112.

Monzón, M., Ortega. Z., Hernández, A., Paz, R., Ortega, F., (2017) Anisotropy of photopolymer parts made by digital light processing. *Materials (Basel)*, 10:64.

Myagmar, G., Lee, J., Ahn, J., Yeo, I., Yoon, H., Han, J., (2021) Wear of 3D printed and CAD/CAM milled interim resin materials after chewing simulation, *J Adv Prosthodont*, 13(3): 144-151.

Othman, A., Sandmair, M., Alevizakos, V., See ,C., (2023) The Fracture Resistance of 3D-Printed Versus Milled Provisional Crowns: An In Vitro Study, *PLoS ONE* 18(9).

UNIVERSITAS
GADJAH MADA
Pengaruh teknik dan suhu post-curing pada pembuatan gigi tiruan cekat sementara menggunakan 3D-Printed terhadap modulus elastisitas
Santoso Filipus Cahya, drg. Murti Indrastuti, M.Kes., Sp.Pros.(K); Prof. Dr. Drg. Titik Ismiyati, M.S., Sp. Pros.(K)
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Park, J., Ahn, J., Cha. S., Lee, H., (2018) Wear resistance of 3D printing resin material opposing zirconia and metal antagonists. *Materials (Basel),* 11:1043.

Puchret, K., Ritzert, P., Wille, S., Naim, J., Sen, S (2025) Influence of Water Storage on the Mechanical Properties of 3D-Printed Aligners: An In Vitro Study, *Bioengineering*, 13, 21.

Riccio, M., Macchia, M. G., & Astarita, A. (2021). Photopolymer resins for stereolithography: Formulations and properties. *Materials Today: Proceedings*, 42, 1025–1030.

Rubio, D., Gaete, A., Arcis, C., Company, J., Moscardo, A., Silla, J., (2018) Mechanical Properties of Provisional Dental Materials: A Systematic Review and Meta-Analysis, *PLoS One*, 13(2).

Schittecatte, L., Geertsen, V., Bonamy, D., Nguyen, T., Guenoun, P., (2023) From Resin Formulation and Process Parameter to the Final Mechanical Properties of 3D Printed Acrylate Materials, *MRS Communications,* 13 : 357-377.

Schweiger, J., Edelhoff, D., Güth, J., (2021) 3D printing in digital prosthetic dentistry: an overview of recent developments in additive manufacturing, *J Clin Med*, 10:2010.

Shibasaki, S., Takamizawa, T., Suzuki, T., Nojiri, K., Tsujimoto, A., Barkmeier, WW., Latta, MA., Mizayaki., (2017) Influence Of Different Curing Modes on Polymerization Behavior and Mechanical Properties of Dual-Cured Provisional Resins, *Operative Dentistry,* 2017, 42-5, 526-536

Shirey, N., Mendonca, G., Groth, C., & Kim-Berman, H. (2023). Comparison of mechanical properties of 3-dimensional printed and thermoformed orthodontic aligners. *American journal of orthodontics and dentofacial orthopedics : official publication of the American Association of Orthodontists, its constituent societies, and the American Board of Orthodontics*, *163*(5), 720–728.

Shillingburg., HT., David, A., Edwin, L., Joseph, R., Donald, L., Luis, J., James, C., (2012) *Fundamentals of Fixed Prosthodontics Fourth Edition*, Quintessence Publishing.

Simoneti, D., Pereira-Cenci, T., Dos Santos, M., (2022) Comparison of material properties and biofilm formation in interim single crowns obtained by 3D printing and conventional methods. *J. Prosthet. Dent. 127*, 168–172.

UNIVERSITAS
GADJAH MADA
Pengaruh teknik dan suhu post-curing pada pembuatan gigi tiruan cekat sementara menggunakan 3D-Printed terhadap modulus elastisitas
Santoso Filipus Cahya, drg. Murti Indrastuti, M.Kes., Sp.Pros.(K); Prof. Dr. Drg. Titik Ismiyati, M.S., Sp. Pros.(K)
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Sperling, L. H. (2006) Introduction to Physical Polymer Science (4th ed.). *John Wiley & Sons.*

Unkovskiy, A., Bui, P., Schille, C., Gerstofer, J., Huettig, F., Spintzyk, S., (2018) Objects build orientation, positioning, and curing influence dimensional accuracy and flexural properties of stereolithographically printed resin, *Dent Mater* 34 (12), e324-e333.

Wada, T., Yamamoto, T., Tanaka, Y., (2022) Enhancing The Mechanical And Aesthetic Properties Of Provisional Fixed Dental Prostheses Through Nitrogen Gas *Post–curing* . Journal of Dental Materials. 41(3), 215-223.

Ward, I. M., Sweeney, J. (2013) Mechanical Properties of Solid Polymers (3rd ed.). *John Wiley & Sons.*

Yadav, K., Sofat, A., Gambhir, R.S., Galhotra, V., (2014) Dentin hypersensitivity following tooth preparation: A clinical study in the spectrum of gender. *J Nat Sci Biol Med*, 5(1):21-24.

Yüceer, M., Çelik, E., & Özdemir, H. (2025). Mechanical and physical evaluation of photopolymer resins in SLA 3D printing. *Journal of Applied Polymer Science*, 142(2), e54890.

Zeidan, AAE., Elrahim, A., Abdallah, R., Hakim, AE., Fawzy, A., Harby, NM., Helal, MA., (2022) Evaluation of Surface Properties and Elastic Modulus of CAD-CAM Milled 3D Printed, and Compression Moulded Denture Base Resins: An In Vitro Study, *Journal of International Society of Preventive and Community Dentistry* 12(6): P 630-637.