KARAKTERISTIK SIFAT FISIS DAN MEKANIS MATERIALSTAINLESS STEEL 316L AKIBAT VARIASI DURASI SHOTPEENING
12 BAR DIKOMBINASIKAN DENGANNITRIDASIPLASMA 100 MENIT
Shidiq Indra Wijaya, Ir. Priyo Tri Iswanto, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abbass, M., & Alwan, A. S. (2017a). *Effect of Nitriding and shot peening on Corrosion Behavior and Surface Properties of Austenite stainless steel* 316L. https://www.researchgate.net/publication/316280079

Abbass, M., & Alwan, A. S. (2017b). *Effect of Nitriding and shot peening on Corrosion Behavior and Surface Properties of Austenite stainless steel* 316L. https://www.researchgate.net/publication/316280079

Ahmed, A. A., Mhaede, M., Basha, M., Wollmann, M., & Wagner, L. (2015). The effect of combined plasma nitriding and *shot peening* on fatigue performance of Ti–6Al–4V alloy. *Surface and Coatings Technology*, *276*, 646–652. https://doi.org/10.1016/j.surfcoat.2015.06.061

ASM International. (2012). *ASM Handbook, Volume 23: Materials for Medical Devices*. ASM International.

ASTM International. (2017). ASTM E384-17: Standard Test Method for Microindentation Hardness of Materials. ASTM International. https://doi.org/10.1520/E0384-17

Brett, P., Harle, J., & Salih, V. (2004). Cells and surfaces: A review of cell-surface interactions in the context of biomaterial implants. Journal of Materials Science: Materials in Medicine, 15(9), 889–896. https://doi.org/10.1023/B:JMSM.0000042672.59348.96

Bonnici, L., Buhagiar, J., Cassar, G., Vella, K. A., Chen, J., Zhang, X. Y., Liu, M. Y., Huang, Z. Q., & Zammit, A. (n.d.). *The Effect of shot peening on Additively Manufactured* 316L *stainless steelfor the Marine Transportation Industry*.

Borgioli, F., Galvanetto, E., & Bacci, T. (2020). Low temperature plasma nitriding of AISI 202 austenitic *stainless steel*: Influence on surface properties and corrosion resistance. Surface and Coatings Technology, 389, 125–138.

Buehler. (2021). Microindentation Hardness Testing: Vickers and Knoop. Buehler, ITW Test & Measurement. https://www.buehler.com/blog/vickers-hardness-testing/

Callister, W. D., & Rethwisch, D. G. (2014). Materials Science and Engineering: An Introduction (9th ed.). John Wiley & Sons. https://ftp.idu.ac.id/wp-content/uploads/ebook/tdg/TEKNOLOGI%20REKAYASA%20MATERIAL%20PERTAHANAN/MATERIALS%20SCIENCE%20AND%20ENGINEERING%20AN%20INTRODUCTION%209TH%20ED%20BY%20CALLISTER.pdf

UNIVERSITAS GADJAH MADA
KARAKTERISTIK SIFAT FISIS DAN MEKANIS MATERIALSTAINLESS STEEL 316L AKIBAT VARIASI DURASI SHOTPEENING
12 BAR DIKOMBINASIKAN DENGANNITRIDASIPLASMA 100 MENIT
Shidiq Indra Wijaya, Ir. Priyo Tri Iswanto, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Callister, W. D., & Rethwisch, D. G. (2020). Materials Science and Engineering: An Introduction (10th ed.). John Wiley & Sons. https://doi.org/10.1002/9781119453918?utm_

Davis, J. R. (1994). *Stainless steels*. ASM International.

Frączek, D., Rudnicki, J., & Krawczyk, J. (2022). Nitriding of 316L Steel in a Glow Discharge Plasma Materials Characterization, 188, 111889.https://doi.org/10.3390/ma15093081

Ebrahimzadeh, A., Mahdavi, S., & Nili-Ahmadabadi, M. (2024). Optimization of *shot peening* parameters for AISI 316L *stainless steel*using response surface methodology (RSM). Materials Research Express, 11(2), 026512. https://doi.org/10.1088/2053-1591/ad1a90

Geetha, M., Singh, A. K., Asokamani, R., & Gogia, A. K. (2009). Ti based biomaterials, the ultimate choice for orthopaedic implants – A review. *Progress in Materials Science*, *54*(3), 397–425. https://doi.org/10.1016/j.pmatsci.2008.06.004

Hasani, I. A., & Iswanto, P. T. (2023). Pengaruh *shot peening* terhadap sifat fisis dan mekanis *stainless steel* 316L. Prosiding Seminar Nasional Inovasi Teknologi (INOTEK), 7, 41–48. Universitas Nusantara PGRI Kediri. https://proceeding.unpkediri.ac.id/index.php/inotek/article/view/3408

Hosford, W. F. (2009). Mechanical Behavior of Materials (2nd ed.). Cambridge University Press. https://ceimusb.wordpress.com/wp-content/uploads/2015/04/mechanicalbehaviorofmaterialshosford.pdf

ISO 4287. (1997). Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters. International Organization for Standardization.

M. Jayalakshmi, B. R. Bhat, and K. U (2017). Bhat, "Effect of shot peening coverage on surface nanostructuring of 316L stainless steel and its influence on low-temperature plasma nitriding," *Materials Performance and Characterization*, vol. 6, no. 5, pp. 561–570, doi: 10.1520/MPC20160079.

Kocijan, A., Conradi, M., & Hočevar, M. (2019). The influence of surface *wettability* and topography on the bioactivity of TiO2/epoxy coatings on AISI 316L *stainless steel*. *Materials*, *12*(11). https://doi.org/10.3390/ma12111877

Kota, A. K., Kwon, G., & Tuteja, A. (2014). The design and applications of superomniphobic surfaces. In *NPG Asia Materials* (Vol. 6, Issue 6). Nature Publishing Group. https://doi.org/10.1038/am.2014.34

Landek, D., Kurtela, M., Stojanović, I., Jačan, J., & Jakovljević, S. (2023). Corrosion and micro-abrasion properties of an AISI 316L austenitic *stainless steel*after low-

KARAKTERISTIK SIFAT FISIS DAN MEKANIS MATERIALSTAINLESS STEEL 316L AKIBAT VARIASI DURASI SHOTPEENING
12 BAR DIKOMBINASIKAN DENGANNITRIDASIPLASMA 100 MENIT
Shidiq Indra Wijaya, Ir. Priyo Tri Iswanto, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

temperature plasma nitriding. Coatings, 13(11), 1854. MDPI. https://doi.org/10.3390/coatings13111854

Li, Y., Wang, Z., Wang, L., & Wang, C. (2013). *Surface properties of nitrided layer on AISI* 316L *austenitic stainless steelproduced by high temperature plasma nitriding in short time*. *Applied Surface Science, 273*, 799–805. https://doi.org/10.1016/j.apsusc.2013.02.076

Lu, Y., Li, D., Ma, H., Liu, X., Wu, M., & Hu, J. (2021). Enhanced plasma nitriding efficiency and properties by severe plastic deformation pretreatment for 316L austenitic *stainless steel*. *Journal of Materials Research and Technology*, *15*, 1742–1746. https://doi.org/10.1016/j.jmrt.2021.08.082

Mukhsen, M. I., Nur, R., Rakka, C. R., & Fattah, M. A. (2021). Pengaruh parameter shot terhadap kekerasan dan kekasaran permukaan melalui proses shot-peening *stainless steel*tipe 316. Jurnal Teknik Mesin Sinergi, 19(1), 18–24.Park, J. B., & Lakes, R. S. (2007). *Biomaterials: An Introduction* (3rd ed.). Springer. https://doi.org/10.31963/sinergi.v19i1.2732

Orouji, Z., Pour-Ali, S., & Tavangar, R. (2024). Exploring microstructural evolution, nitrogen depth profile, and dry wear performance in 31CrMoV9 steel through combined severe *shot peening* and plasma nitriding. Materials Today Communications, 39. https://doi.org/10.1016/j.mtcomm.2024.109182

Outokumpu. (2013). *Handbook of stainless steel*. Outokumpu Oyj.

Park, J. B., & Lakes, R. S. (2007). Biomaterials: An Introduction (3rd ed.). Springer. DOI: https://doi.org/10.1007/978-0-387-37880-0

Payana, Y., Firmansyah, H., & Widjaja, S. (2018). Analisis kekerasan permukaan baja karbon dengan metode Vickers setelah perlakuan panas. Jurnal Material dan Energi Indonesia, 8(2), 45–52.

Pratama, D., Susanto, B., & Widodo, S. (2022). Pengaruh variasi tekanan gravity *shot peening* terhadap sifat mekanis baja S45C. Jurnal Teknik Mesin Indonesia, 17(2), 75–83. https://ejournal.itn.ac.id/index.php/flywheel/article/download/5688/3475/

Rasyadi, M., & Iswanto, P. T. (2024). Pengaruh *shot peening* dan sputtering TiN terhadap sifat mekanis *stainless steel* 316L. Jurnal Material dan Proses Manufaktur Indonesia, 5(1), 25–34. https://jurnal.umj.ac.id/index.php/semnastek/article/download/22640/10468/59635

Rohi, J. R., Lopo, E. B., & Bistolen, B. (2024). Pengaruh sputtering TiN terhadap kekerasan permukaan dan struktur mikro pada material *stainless steel* 316L. Jurnal Teknik

UNIVERSITAS GADJAH MADA
KARAKTERISTIK SIFAT FISIS DAN MEKANIS MATERIALSTAINLESS STEEL 316L AKIBAT VARIASI DURASI SHOTPEENING 12 BAR DIKOMBINASIKAN DENGANNITRIDASIPLASMA 100 MENIT
Shidiq Indra Wijaya, Ir. Priyo Tri Iswanto, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Mesin, 17(1), 100–105. Politeknik Negeri Padang. https://doi.org/10.30630/jtm.17.1.1196

Rupp, F., Gittens, R. A., Scheideler, L., Marmur, A., Boyan, B. D., Schwartz, Z., & Geis-Gerstorfer, J. (2014). A review on the *wettability* of dental implant surfaces I: Theoretical and experimental aspects. In *Acta Biomaterialia* (Vol. 10, Issue 7, pp. 2894–2906). Elsevier Ltd. https://doi.org/10.1016/j.actbio.2014.02.040

Ruzova, T. A., & Haddadi, B. (2025). *Surface roughness and its measurement methods – Analytical review*. Results in Surfaces and Interfaces, 17, 100123.

Sinnott, R. K. (2005). *Chemical engineering design* (4th ed.). Elsevier Butterworth-Heinemann.

Statistik, B. P. (2024). *Statistik Transportasi Darat 2023*. https://www.bps.go.id/publication/2024/11/25/cdcf9b5e74dd2e9bb3458ee4/statistik-transportasi-darat-2023.html

Stinville, J. C., Villechaise, P., Templier, C., Riviere, J. P., & Drouet, M. (2010). Plasma nitriding of 316L austenitic *stainless steel*: Experimental investigation of fatigue life and surface evolution. *Surface and Coatings Technology*, *204*(12–13), 1947–1951. https://doi.org/10.1016/j.surfcoat.2009.09.052

Walczak, M. (2023). Surface Characteristics and Wear Resistance of 316L *stainless steel*after Different *shot peening* Parameters. *Advances in Science and Technology Research Journal*, *17*(3), 124–132. https://doi.org/10.12913/22998624/165800

Watanabe, K., Fukuzaki, S., Sugino, A., Benson, N., Metcalf, N., Nakamura, M., & Matsumoto, M. (2021). Cobalt–chromium alloy has superior antibacterial effect than titanium alloy: In vitro and in vivo studies. Spine, 46(17), E911–E915. https://doi.org/10.1097/BRS.0000000000003970

Wennerberg, A., Albrektsson, T., & Lausmaa, J. (1998). Torque and histomorphometric evaluation of screw-shaped implants with three different surface topographies. Clinical Oral Implants Research, 9(1), 11–19. https://pubmed.ncbi.nlm.nih.gov/9590940/

Yetim, A. F., Yildiz, F., Alsaran, A., & Elik, A. C. ¸. (2008). *Surface modification of* 316L *stainless steelwith plasma nitriding* (Vol. 46).

ZwickRoell. (n.d.). Hardness Testing Methods: Brinell, Vickers, Rockwell, and Knoop. ZwickRoell GmbH & Co. KG. https://www.zwickroell.com?utm_