UNIVERSITAS GADJAH MADA
Peningkatan Sifat-Sifat Mekanis Sambungan Las MIG Aluminium Paduan AA5083 dengan Variasi Durasi Arus Pulsa
Choirul Anam, Prof. Ir. Mochammad Noer Ilman, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

American Welding Society. (2000). *AWS D1.1:2000 structural welding code—Steel*. American Welding Society.

American Welding Society. (2014). *AWS D1.2/D1.2M:2014 structural welding code — Aluminum*. American Welding Society.

Anggraini, L., Siahaan, E., & Fadilah, L. (2023). Thin plate welding of Al 5083 alloy by GMAW applied for electric substations equipment. *AIP Conference Proceedings*, 2837(1), 040015.

ASM International. Handbook Committee. (1996). *ASM handbook, volume 19: Fatigue and fracture*. ASM International.

Atlas Steels. (2021). *Aluminium alloy 5083 data sheet*. Atlas Quality Management.

Campbell, F. C. (2008). *Elements of metallurgy and engineering alloys*. ASM International.

Çam, G. (2022). Prospects of producing aluminum parts by wire arc additive manufacturing (WAAM). *Materials Today: Proceedings*, 62, 77–85.

Cary, H. B., & Helzer, S. C. (2005). *Modern welding technology* (6th ed.). Prentice Hall.

Chen, C., Sun, G., Du, W., Li, Y., Fan, C., & Zhang, H. (2022). Influence of heat input on the appearance, microstructure and microhardness of pulsed gas metal arc welded Al alloy weldment. *Journal of Materials Research and Technology*. https://doi.org/10.1016/j.jmrt.2022.09.028

Chi, J., Shao, H., Song, H., Wang, X., Wu, K., Zheng, Q., Starostenkov, M. D., Dong, G., & Bi, J. (2024). Double-pulse frequency effects on microstructure and properties of MIG welded joints. *Materials Science & Engineering: A*, 913, 147029.

Cueca, F., Patarroyo, A., Rojas, F., Solano, E., Morales, A., & Muñoz, R. (2012). Study of the weld ability of aluminum alloy 5083 H116 with pulsed arc GMAW (GMAW-P). *Ship Science and Technology*, 6(11), 43–56. https://doi.org/10.25043/19098642.68

UNIVERSITAS GADJAH MADA
Peningkatan Sifat-Sifat Mekanis Sambungan Las MIG Aluminium Paduan AA5083 dengan Variasi Durasi Arus Pulsa
Choirul Anam, Prof. Ir. Mochammad Noer Ilman, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Gençer, G. M., Kahraman, F., Yolcu, C., Kahraman, A. D., & Demircioğlu, A. (2018). Investigation of the microstructures and mechanical properties of thin 5083 aluminum alloy plates welded by double pulse GMAW method. Dalam *International Academic Conference on Applied Research in Engineering, Science & Technology* (hlm. 44–52). Brussels, Belgium.

Ilman, M. N. (2023). *Ilmu dan teknologi pengelasan*. UGM PRESS.

Ilman, M. N., Kusmono, Muslih, M. R., Triwibowo, N. A., & Sehono. (2022). Enhanced fatigue performance of tandem MIG 5083 aluminium alloy weld joints by heat sink and static thermal tensioning. *International Journal of Lightweight Materials and Manufacture*, 5(4), 440–452.

Irwin, G. R. (1956). Relation of stresses near a crack to the crack extension force. *Proceedings of the 9th International Congress of Applied Mechanics*, *8*, 245–251.

Kou, S. (2002). *Welding metallurgy* (2nd ed.). John Wiley & Sons.

Lippold, J. C. (2014). *Welding metallurgy and weldability*. John Wiley & Sons.

Lumley, R. (Ed.). (2011). *Fundamentals of aluminium metallurgy: Production, processing and applications*. Woodhead Publishing.

Mandal, N. R. (2005). *Aluminum welding*. Narosa Publishing House. https://books.google.co.id/books?id=ZX6UPwAACAAJ

Mathers, G. (2002). *The welding of aluminium and its alloys*. Woodhead Publishing.

Matsuda, F., Hashimoto, T., & Senda, T. (1969). Fundamental investigations on solidification structure in weld metal. *Transactions of National Research Institute for Metals*, 11(1), 43–58.

Messler, R. W. (2008). *Principles of welding: Processes, physics, chemistry, and metallurgy*. John Wiley & Sons.

Niebles-Nuñez, E. E., Unfried-Silgado, J., Torres-Salcedo, J. E., & Ramírez, A. J. (2024). Behavior and relationships between residual stresses and mechanical properties in welded joints of aluminum alloy AA5083-H116 using pulsed gas metal arc welding. *Journal of Materials Engineering and Performance*, 33(8), 3912–3919.

UNIVERSITAS
GADJAH MADA
Peningkatan Sifat-Sifat Mekanis Sambungan Las MIG Aluminium Paduan AA5083 dengan Variasi Durasi Arus Pulsa
Choirul Anam, Prof. Ir. Mochammad Noer Ilman, S.T., M.Sc., Ph.D., IPM., ASEAN Eng.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Palani, P. K., & Murugan, N. (2006). Selection of pulse parameters in pulsed gas metal arc welding. *Journal of Materials Processing Technology*, 172(1), 1–10.

Praveen, P., Kang, M. J., & Yarlagadda, P. K. D. V. (2009). Arc voltage behavior in GMAW-P under different drop transfer modes. *Journal of Achievements in Materials and Manufacturing Engineering*, 32(2), 196–202.

Savage, W. F., Nippes, E. F., & Szekeres, E. S. (1976). A study of weld interface phenomena in a low alloy steel. *Welding Journal*, 55(9), 260s–268s.

Umalalitha, I., Srinivasa Rao, M., Janardan, M., & Ramanaiah, N. (2017). Study of mechanical properties of aluminium alloy (AA5083) welds with CC & PC GMAW parameters. *SSRG International Journal of Mechanical Engineering*, Special Issue, 310.

Verma, R. P., Pandey, K., András, K., Khargotra, R., & Singh, T. (2023). Difficulties and redressal in joining of aluminium alloys by GMA and GTA welding: A review. *Journal of Materials Research and Technology*, 33, 2576–2586.

Wiryosumarto, H., & Okumura, T. (2000). *Teknologi pengelasan logam*. PT Pradnya Paramita.