

DAFTAR PUSTAKA

- [1] C. Bharambe, M. D. Jaybhaye, A. Dalmiya, C. Daund, and D. Shinde, “Analyzing casting defects in high-pressure die casting industrial case study,” *Mater. Today Proc.*, vol. 72, pp. 1079–1083, Jan. 2023, doi: 10.1016/j.matpr.2022.09.166.
- [2] S. Sen, S. Reddy, B. K. Muralidhara, and P. G. Mukunda, “Study of Flow Behaviour in Vertical Centrifugal Casting,” *Mater. Today Proc.*, vol. 24, pp. 1392–1399, 2020, doi: 10.1016/j.matpr.2020.04.457.
- [3] M. G. C and M. P. G, “Effect of Mould Wall Thickness on Rate of Solidification of Centrifugal Casting,” / *Int. J. Eng. Sci. Technol.*, vol. 2, no. 11, pp. 6092–6096, 2010.
- [4] S. Jamian, Y. Watanabe, and H. Sato, “Formation of compositional gradient in Al/SiC FGMs fabricated under huge centrifugal forces using solid-particle and mixed-powder methods,” *Ceram. Int.*, vol. 45, no. 7, pp. 9444–9453, 2019, doi: 10.1016/j.ceramint.2018.08.315.
- [5] A. D. Pradeep and T. Rameshkumar, “Review on centrifugal casting of functionally graded materials,” *Mater. Today Proc.*, vol. 45, pp. 729–734, 2021, doi: 10.1016/j.matpr.2020.02.764.
- [6] P. Puspitasari, R. A. Safarudin, M. I. N. Sasongko, M. Achyarsyah, and Andoko, “Analysis of Mechanical and Physical Properties of Al-Si (Al-Si) Casting Alloys Reinforced with Various Eggshell Nanopowders,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 515, no. 1, 2019, doi: 10.1088/1757-899X/515/1/012028.
- [7] D. Raabe, D. Ponge, P. J. Uggowitzer, M. Roscher, M. Paolantonio, C. Liu, H. Antrekowitsch, E. Kozeschnik, D. Seidmann, B. Gault, F. De Geuser, A. Deschamps, C. Hutchinson, C. Liu, Z. Li, P. Prangnell, J. Robson, P. Shanthraj, S. Vakili, C. Sinclair, L. Bourgeois, S. Pogatscher, “Making sustainable aluminum by recycling scrap: The science of ‘dirty’ alloys,” *Prog. Mater. Sci.*, vol. 128, no. June 2020, 2022, doi:

10.1016/j.pmatsci.2022.100947.

- [8] J. Kasińska, D. Bolibruchová, and M. Matejka, “The influence of remelting on the properties of AlSi9Cu3 alloy with higher iron content,” *Materials (Basel)*, vol. 13, no. 3, pp. 1–13, 2020, doi: 10.3390/ma13030575.
- [9] S. Sulaiman, M. Sayuti, and R. Samin, “Mechanical properties of the as-cast quartz particulate reinforced LM6 alloy matrix composites,” *J. Mater. Process. Technol.*, vol. 201, no. 1–3, pp. 731–735, 2008, doi: 10.1016/j.jmatprotec.2007.11.221.
- [10] H. K. Issa, A. Taherizadeh, A. Maleki, and A. Ghaei, “Development of an aluminum/amorphous nano-SiO₂ composite using powder metallurgy and hot extrusion processes,” *Ceram. Int.*, vol. 43, no. 17, pp. 14582–14592, 2017, doi: 10.1016/j.ceramint.2017.06.057.
- [11] W. Kim, K. Jang, C. Ji, and E. Lee, “Effects of heat treatment on the microstructure and hardness of a356 (Alsi7 mg0.3) manufactured by vertical centrifugal casting,” *Appl. Sci.*, vol. 11, no. 23, 2021, doi: 10.3390/app112311572.
- [12] M. Farokhpour, M. S. Aghareb Parast, and M. Azadi, “Evaluation of hardness and microstructural features in piston aluminum-silicon alloys after different ageing heat treatments,” *Results Mater.*, vol. 16, no. July, p. 100323, 2022, doi: 10.1016/j.rinma.2022.100323.
- [13] W. S. Ebhota, A. S. Karun, and F. L. Inambao, “Centrifugal casting technique baseline knowledge, applications, and processing parameters: Overview,” *Int. J. Mater. Res.*, vol. 107, no. 10, pp. 960–969, 2016, doi: 10.3139/146.111423.
- [14] ASM International, “Heat Treating of Aluminum Alloys,” in *ASM Handbook, Volume 4: Heat Treating*, 1991, pp. 841–879. doi: 10.1361/asmhba0001205.
- [15] M. Azadi, S. Rezanezhad, M. Zolfaghari, and M. Azadi, “Effects of various ageing heat treatments on microstructural features and hardness of Piston

- aluminum alloy,” *Int. J. Eng. Trans. A Basics*, vol. 32, no. 1, pp. 92–98, 2019, doi: 10.5829/ije.2019.32.01a.12.
- [16] M. Akhtar, S. Z. Qamar, M. Muhammad, and A. Nadeem, “Optimum heat treatment of aluminum alloy used in manufacturing of automotive piston components,” *Mater. Manuf. Process.*, vol. 33, no. 16, pp. 1874–1880, 2018, doi: 10.1080/10426914.2018.1512128.
- [17] R. P. Barot and M. P. Sutaria, “Effect of multiple remelting on behaviour of AlSi5Cu3 Aluminium alloy,” *Mater. Today Proc.*, vol. 62, pp. 4046–4051, 2022, doi: 10.1016/j.matpr.2022.04.608.
- [18] J. F. King, “The metal and its history,” in *The Aluminium Industry*, Cambridge: Woodhead Publishing Limited, 2001, pp. 1–5. doi: 10.1016/b978-1-85573-151-6.50007-0.
- [19] J. F. King, “Aluminium products,” in *The Aluminium Industry*, Cambridge: Woodhead Publishing Limited, 2001, pp. 6–36. doi: 10.1016/b978-1-85573-151-6.50012-4.
- [20] I. Polmear, D. St. John, J. F. Nie, and M. Qian, “Cast Aluminium Alloy,” in *Light Alloys: Metallurgy of the Light Metals: Fifth Edition*, 5th ed., Elsevier, 2017, pp. 265–286. doi: 10.1016/B978-0-08-099431-4.00005-1.
- [21] B. Mathai, C. Mathew, P. K, and C. K. Varghese, “Effect of Silicon on Microstructure and Mechanical Properties of Al-Si Piston Alloys,” *Int. J. Eng. Trends Technol.*, vol. 29, no. 6, pp. 299–303, Nov. 2015, doi: 10.14445/22315381/IJETT-V29P256.
- [22] W. D. Callister Jr and D. G. Rethwisch, “Structures and Properties of Ceramics,” in *Materials Science and Engineering - An Introduction*, 10th ed., Wiley, 2018, pp. 405–441.
- [23] S. M. Ali, “The effect of reinforced SiC on the mechanical properties of the fabricated hypoeutectic Al-Si alloy by centrifugal casting,” *Eng. Sci. Technol. an Int. J.*, vol. 22, no. 4, pp. 1125–1135, 2019, doi: 10.1016/j.jestch.2019.02.009.

- [24] J. J. Sobczak and L. Drenchev, "Metallic Functionally Graded Materials: A Specific Class of Advanced Composites," *J. Mater. Sci. Technol.*, vol. 29, no. 4, pp. 297–316, 2013, doi: 10.1016/j.jmst.2013.02.006.
- [25] B. Saleh, J. Jiang, A. Ma, D. Song, and D. Yang, "Effect of Main Parameters on the Mechanical and Wear Behaviour of Functionally Graded Materials by Centrifugal Casting: A Review," *Met. Mater. Int.*, vol. 25, no. 6, pp. 1395–1409, 2019, doi: 10.1007/s12540-019-00273-8.
- [26] K. Siadkowska and Z. CZYŻ, "CE-2019-301 Selecting a material for an aircraft diesel engine block," *Combust. Engines*, vol. 178, no. 3, pp. 4–8, 2019, doi: 10.19206/CE-2019-301.
- [27] S. N. Yahaya, I. Azmi, C. H. Ng, C. . Lai, M. Y. Hashim, R. Baehr, K. H. Grote, "An Overview on Forming Process and Heat Treatments For Heat Treatable Aluminium Alloy," vol. 1, no. 1, pp. 112–124, 2020.
- [28] R. B. S. Majanasastra, "Pengaruh Variable Waktu (Aging Heat Treatment) Terhadap Peningkatan Kekerasan Permukaan Dan Struktur Mikro," vol. 3, no. 2, pp. 87–101, 2015.
- [29] W. D. Callister Jr and D. G. Rethwisch, "Applications and Processing of Metal Alloys," in *Materials Science and Engineering - An Introduction*, 10th ed., Wiley, 2018, pp. 347–404.
- [30] ASTM International, "Standard Practice for Microetching Metals and Alloys," in *Annual Book ASTM Standard*, 2015, pp. 1–21.
- [31] E. Broitman, "Indentation Hardness Measurements at Macro-, Micro-, and Nanoscale: A Critical Overview," *Tribol. Lett.*, vol. 65, no. 1, 2017, doi: 10.1007/s11249-016-0805-5.
- [32] L. R. Putra, "Pengaruh Kecepatan Putar Mesin Centrifugal Casting pada Proses Pengecoran Aluminium terhadap Kekerasan dan Porositas," *J. Tek. Mesin*, vol. 7, no. 1, pp. 25–34, 2019.
- [33] R. F. Gibson, "Effective Moduli of a Continuous Fiber-Reinforced Lamina," in *Principles of Composite Material Mechanics*, 4th ed., 2016, pp. 95–142.

- [34] ASM International, "Aluminum and Aluminum Alloys," in *ASM Handbook, Volume 15: Casting*, 1988, pp. 1612–1687.
- [35] E. Ringdalen and M. Tangstad, "Softening and melting of SiO₂, an important parameter for reactions with quartz in Si production," *Adv. Molten Slags, Fluxes, Salts Proc. 10th Int. Conf. Molten Slags, Fluxes Salts 2016*, vol. 2016, no. 4, pp. 43–51, 2017, doi: 10.1007/978-3-319-48769-4_4.
- [36] A. R. Kennedy and A. E. Karantzalis, "The incorporation of ceramic particles in molten aluminium and the relationship to contact angle data," *Mater. Sci. Eng. A*, vol. 264, no. 1–2, pp. 122–129, 1999, doi: 10.1016/S0921-5093(98)01102-2.
- [37] E. Ogris, A. Wahlen, H. Lüchinger, and P. J. Uggowitzer, "On the silicon spheroidization in Al-Si alloys," *J. Light Met.*, vol. 2, no. 4, pp. 263–269, 2002, doi: 10.1016/S1471-5317(03)00010-5.
- [38] T. V. Rajan, C. P. Sharma, and A. Sharma, "Heat Treatment of Non-ferrous Metals and Alloys," in *Heat Treatment Principles and Techniques*, 2nd ed., New Delhi: PHI Learning Private Limited, 2011, pp. 277–309.
- [39] W. S. Ebhota, A. S. Karun, and F. L. Inambao, "Improving the surface properties of a Pelton turbine bucket via centrifugal casting technique," *Adv. Mech. Eng.*, vol. 9, no. 10, pp. 1–14, 2017, doi: 10.1177/1687814017729087.
- [40] E. Sjölander and S. Seifeddine, "The heat treatment of Al-Si-Cu-Mg casting alloys," *J. Mater. Process. Technol.*, vol. 210, no. 10, pp. 1249–1259, 2010, doi: 10.1016/j.jmatprotec.2010.03.020.
- [41] S. Khisheh, M. Azadi, V. Z. Hendoabadi, M. S. A. Parast, G. Winter, B. Seisenbacher, F. Gruen, K. Khalili, "Influence of T6 heat-treating and over-ageing on out-of-phase thermo-mechanical fatigue behaviors of Al-Si-Cu alloy," *Mater. Today Commun.*, vol. 33, no. June, p. 104803, 2022, doi: 10.1016/j.mtcomm.2022.104803.
- [42] I. Polmear, D. St. John, J. F. Nie, and M. Qian, "Novel Materials and

Processing Methods,” in *Light Alloys*, 5th ed., Elsevier, 2017, pp. 461–514. doi: 10.1016/B978-0-08-099431-4.00008-7.

- [43] A. M. Omran, H. S. Wasly, and M. M. Kh, “a Review on Advanced Challenges for Improvement the Mechanical Properties of Al-Si Alloy Automotive Parts,” vol. 4, no. 11, p. 415, 2017.
- [44] N. Zhao, H. Ma, Z. Hu, Y. Yan, and T. Chen, “Microstructure and mechanical properties of Al-Mg-Si alloy during solution heat treatment and forging integrated forming process,” *Mater. Charact.*, vol. 185, no. January, p. 111762, 2022, doi: 10.1016/j.matchar.2022.111762.
- [45] H. jung Kang, H. sung Jang, S. hyo Oh, P. hwan Yoon, G. heun Lee, J. young Park, E. soo Kim, Y. suk Choi , “Effects of solution treatment temperature and time on the porosities and mechanical properties of vacuum die-casted and T6 heat-treated Al–Si–Mg alloy,” *Vacuum*, vol. 193, no. May, p. 110536, 2021, doi: 10.1016/j.vacuum.2021.110536.
- [46] A. Niklas, S. Orden, A. Bakedano, M. da Silva, E. Nogués, and A. I. Fernández-Calvo, “Effect of solution heat treatment on gas porosity and mechanical properties in a die cast step test part manufactured with a new AlSi10MnMg(Fe) secondary alloy,” *Mater. Sci. Eng. A*, vol. 667, pp. 376–382, 2016, doi: 10.1016/j.msea.2016.05.024.