

DAFTAR PUSTAKA

- [1] M. Sulaiman and M. H. Rahmat, "Kajian potensi pengembangan material komposit polimer dengan serat alam untuk produk otomotif," *Jurnal Teknik Mesin*, vol. 4, no. 1, pp. 1–7, 2018.
- [2] C. A. Harper, *Modern Plastics Handbook*. 2000.
- [3] A. Shebani, A. Klash, R. Elhabishi, S. Abdsalam, H. ELbreki, and Wael Elhrari, "The influence of LDPE content on the mechanical properties of HDPE/LDPE blends," *Research & Development in Material Science*, pp. 1–7, 2018, doi: 10.31031/rdms.2018.07.000672.
- [4] J. Willey and Sons, *Ethylene Polymers, HDPE*. 2015. doi: 10.1002/0471238961.0809070811091919.a01.pub3.
- [5] I. Qiram, D. Widhiyanuriyawan, and W. Wijayanti, "Pengaruh variasi temperatur terhadap kuantitas char hasil pirolisis serbuk kayu mahoni (*switenia macrophylla*) pada rotary 39 kiln," *Jurnal Rekayasa Mesin*, vol. 6, no. 1, pp. 39–44, 2015, doi: 10.21776/ub.jrm.2015.006.01.6.
- [6] C. S. Verma, N. K. Sharma, V. M. Chariar, S. Maheshwari, and M. K. Hada, "Comparative study of mechanical properties of bamboo laminae and their laminates with woods and wood based composites," *Composites Part B: Engineering*, vol. 60, pp. 523–530, 2014, doi: 10.1016/j.compositesb.2013.12.061.
- [7] M. Fadhil, G. A. R. Thamrin, and W. T. Istikowati, "Studi sifat fisik mekanik dan karakteristik anatomi kayu kacang (*strombosia javanica*) di mandiangin kabupaten banjar kalimantan selatan," *Jurnal Sylva Scientiae*, vol. 3, no. 3, pp. 560–567, 2020, doi: 10.20527/jss.v3i3.2190.
- [8] T. O. Azeez, M. Officha, Okechukwu, Dominic, and Onukwuli, "Effect of rice husk filler on mechanical properties of reinforced matrix," *Natural and Applied Sciences*, vol. 4, no. 4, pp. 282–292, 2013.
- [9] U. H. Hasyim, N. A. Yansah, and M. F. Nuris, "Modifikasi sifat kimia serbuk tempurung kelapa (STK) sebagai matriks komposit serat alam dengan perbandingan alkalisasi NaOH dan KOH," *E - Journal UMJ*, pp. 1–7, 2018.
- [10] B. C. Kandpal, J. Kumar, and H. Singh, "Fabrication and characterisation of Al₂O₃/aluminium alloy 6061 composites fabricated by Stir casting," *Materials Today: Proceedings*, vol. 4, no. 2, pp. 2783–2792, 2017, doi: 10.1016/j.matpr.2017.02.157.
- [11] C. Jin, W. Chunfeng, W. Yongliang, and H. Zhidong, "Distribution of Al₂O₃ in PE/EVA blends and the thermal conductivity of PE/EVA/Al₂O₃ composites," *Japanese Journal of Applied Physics*, vol. 51, pp. 485–488, 2014, doi: 10.7567/jjap.51.09ml01.
- [12] G. Tadayyon, S. M. Zebarjad, and S. A. Sajjadi, "Effect of mechanical milling on the thermal behavior of polyethylene reinforced with nano-sized

- alumina,” *International Polymer Processing*, vol. 26, no. 4, pp. 354–360, 2011, doi: 10.3139/217.2338.
- [13] I. L. M. Costa, N. C. Zanini, and D. R. Mulinari, “Thermal and mechanical properties of HDPE reinforced with Al₂O₃ nanoparticles processed by thermokinetic mixer,” *Journal of Inorganic and Organometallic Polymers and Materials*, pp. 220–228, 2020, doi: 10.1007/s10904-020-01709-0.
- [14] S. Sahebian and M. H. Mosavian, “Thermal stability of CaCO₃/polyethylene (PE) nanocomposites,” *Polymers and Polymer Composites*, vol. 27, no. 7, pp. 371–382, 2019, doi: 10.1177/0967391119845994.
- [15] M. Saleh, Z. Al-Hajri, A. Popelka, and S. J. Zaidi, “Preparation and characterization of alumina HDPE composites,” *Materials*, vol. 13, no. 250, pp. 1–12, 2020, doi: 10.3390/ma13010250.
- [16] A. Dwi Supriono, D. Wicaksono, and Sehonu, “Analisa kekuatan polypropylene dengan campuran HDPE dan serat karbon menggunakan uji impact,” *Teknika STTKD: Jurnal Teknik, Elektronik, Engine*, vol. 8, no. 2, pp. 251–256, 2022, doi: 10.56521/teknika.v8i2.640.
- [17] D. K. Mustofa and Z. Fuad, “Pirolisis sampah plastik hingga suhu 900oC sebagai upaya menghasilkan bahan bakar ramah lingkungan,” *simposium nasional RAPI XIII*, pp. 98–102, 2014.
- [18] C. E. Carraher, *Polymer chemistry sixth edition revised and expanded*. New York, 2003. doi: 10.1016/B978-1-84569-741-9.50002-1.
- [19] A. Peacock, *Handbook of polyethylene structures, properties, and applications*. Baytown, 2000. doi: 10.1016/0167-188X(89)90104-3.
- [20] T. Surdia and S. Saito, *Pengetahuan Bahan Teknik*. PT. Pradya Paramita, 1999.
- [21] Febriandri, “Pengaruh variasi persentase serat alam terhadap stabilitas termal pada komposit bermatriks HDPE (high density polyethylene) berpenguat carbon nanotube dan serat batang pisang dengan proses alkali,” Universitas Negeri Jakarta, 2017.
- [22] A. Nurhidayat, “Pengaruh fraksi volume pada pembuatan komposit HDPE limbah-cantula,” Universitas Sebelas Maret, 2013.
- [23] G. Wypych, *Handbook of polymers 2nd edition*. Toronto, Canada, 2016.
- [24] S. Wang, Z. Shan, and H. Huang, “The Mechanical Properties of Nanowires,” *Advanced Science*, vol. 4, no. 4, pp. 1–24, 2017, doi: 10.1002/advs.201600332.
- [25] H. Krisnawati, M. Kallio, and M. Kanninen, “Swietenia macrophylla king: ecology, silviculture and productivity,” *Center for International Forestry Research*, pp. 1–13, 2011, doi: 10.17528/cifor/003395.
- [26] S. Rulianah, Prayitno, C. Sindhuwati, D. R. A. Ayu, and K. Sa’diyah, “Penurunan kadar lignin pada fermentasi limbah kayu mahoni menggunakan phanerochaete chrysosporium,” *Jurnal Teknik Kimia dan Lingkungan*, vol. 4, no. 1, pp. 81–89, 2020, doi: 10.33795/jtkl.v4i1.139.
- [27] Badan Pusat Statistik, *Statistik prooduksi kehutanan*. 2014.

- [28] H. Rahmawati, "Keefektifkan ekstrak kulit batang mahoni terhadap larva nyamuk aedes aegypti," Universitas Negeri Semarang, 2018.
- [29] A. Maiti, S. Dewanjee, G. Jana, and S. C. Mandal, "Hypoglycemic effect of Swietenia macrophylla seeds against type II diabetes," *International Journal of Green Pharmacy*, vol. 2, no. 4, pp. 224–227, 2008, doi: 10.4103/0973-8258.44738.
- [30] M. R. Yanhar and P. Siagian, "Pengujian Kekuatan Tarik Komposit Serat Kayu Mahoni Tanpa Pengaruh Alkali," *Journal of Mechanical Engineering*, vol. 4, no. 2, pp. 86–90, 2023.
- [31] M. A. Maulana, "Komposit core hybrid berpenguat serbuk kayu jati dan mahoni bermatrik polyester," Universitas Muhammadiyah Surakarta, 2017.
- [32] R. Desiasni, N. Azman, and F. Widyawati, "Sifat fisik dan mekanik komposit papan partikel berdasarakan variasi ukuran serbuk kayu mahoni (swietenia macrophylla) sebagai material alternatif papan komposit," *Jurnal Tamborra*, vol. 7, no. 2, pp. 78–83, 2023.
- [33] F. Gapsari and P. H. Setyarini, "Pengaruh fraksi volume serat terhadap kekuatan tarik dan lentur komposit resin berpenguat serbuk kayu," *Jurnal Rekayasa Mesin*, vol. 1, no. 2, pp. 1–5, 2010.
- [34] R. Waluyo, A. R. Ahmad, G. E. Pramono, and Kurniansyah, "Pengembangan Wood Plastic Composite (Wpc) Melalui Pemanfaatan," *Jurnal Ilmiah Teknik Mesin*, vol. 7, no. November 2020, pp. 1–8, 2021.
- [35] B. Widodo and A. Subardi, "Pengujian sifat mekanik dan struktur mikro aluminium matrix composite (AMC) berpenguat partikel silikon karbida (SiC) dan alumina (Al₂O₃)," *Seminar Nasional Inovasi dan Aplikasi Teknologi di Industri*, pp. 295–303, 2019.
- [36] J. Hashim, L. Looney, and M. S. J. Hasmi, "Metal maxtrix composites: production by stir casting method," *Journal of Materials Processing Technology*, vol. 92, no. 93, pp. 1–7, 1999, doi: 10.1016/j.matpr.2017.02.235.
- [37] A. Johan, "Karakterisasi sifat fisik dan mekanik bahan refraktori α -Al₂O₃ pengaruh penambahan TiO₂," *Jurnal Penelitian Sains*, vol. 12, no. 2, pp. 1–8, 2009.
- [38] G. Wibisono, "Pengaruh penambahan serbuk nano alumina Al₂O₃ terhadap karakterisasi komposit Al/serat kawat baja dengan metode stir casting," Universitas Jember, 2020.
- [39] I. Gst. Ngr. N. Santhiarsa, "I gst Nistya," *Jurnal Ilmiah Teknik Mesin Cakram*, vol. 4, no. 1, pp. 75–82, 2010.
- [40] National Center for Biotechnology Information, "PubChem Compound Summary for CID 14769, Alumina.," PubChem. Accessed: Aug. 17, 2023. [Online]. Available: <https://pubchem.ncbi.nlm.nih.gov/compound/Alumina#section=Structures>
- [41] S. K. Reddy, J. Akhil, G. A. Reddy, and V. H. K. Reddy, "Mechanical properties of bamboo fibre with graphene as a filler material in polyester composite," *International Journal of Pure and Applied Mathematics*, vol. 119, no. 7, pp. 911–916, 2018.

- [42] S. Dabees, A. B. Elshalakany, V. Tirth, and B. M. Kamel, "Synthesis and characterization studies of high-density polyethylene -based nanocomposites with enhanced surface energy, tribological, and electrical properties," *Polymer Testing*, vol. 98, pp. 1–12, 2021, doi: 10.1016/j.polymertesting.2021.107193.
- [43] K. Sumada, P. Erka Tamara, and F. Alqani, "Kajian proses isolasi A-selulosa dari limbah batang tanaman manihot *esculenta crantz* yang efisien," *Jurnal Teknik Kimia*, vol. 5, no. 2, pp. 434–438, 2011.
- [44] Y. Zheng, Z. Pan, and R. Zhang, "Overview of biomass pretreatment for cellulosic ethanol production," *International Journal of Agricultural and Biological Engineering*, vol. 2, no. 3, pp. 51–68, 2009, doi: 10.3965/j.issn.1934-6344.2009.03.051-068.
- [45] D. F. Rochman and M. A. Irfai, "Pengaruh konsentrasi larutan KOH terhadap kekuatan tarik dan struktur mikro komposit hibrid serat rami dan serat bambu," *Jurnal Teknik Mesin*, vol. 8, no. 2, pp. 111–118, 2020.
- [46] K. S. Nisa, E. Melyna, and M. R. M. Samida, "Sintesis biokomposit serat sabut kelapa dan resin poliester dengan alkalisasi KOH menggunakan metode hand lay-up," *Journal of Science and Technology*, vol. 15, no. 3, pp. 354–361, 2022, doi: 10.21107/rekayasa.v15i3.16713.
- [47] Sujita and A. Zainuri, "Karakteristik kekuatan tarik dan morfologi material komposit berpenguat serat pohon pisang saba dengan perlakuan kimia," *Jurnal Mekanik Terapan*, vol. 2, no. 1, pp. 16–25, 2021.
- [48] P. H. Tjahjanti, *Teori dan aplikasi material komposit dan polimer*. 2018. doi: 10.21070/2019/978-602-5914-27-0.
- [49] A. K. Kaw, *Mechanics of composite materials*. 2006. doi: 10.1115/1.3423688.
- [50] S. K. Mazumdar, *Composites manufacturing: materials, product, and process engineering*. Boca Raton: Taylor & Francis Group, 2002.
- [51] L. Diana, A. Ghani Safitra, and M. Nabel Ariansyah, "Analisis kekuatan tarik pada material komposit dengan serat penguat polimer," *Jurnal Engine: Energi, Manufaktur, dan Material*, vol. 4, no. 2, pp. 59–67, 2020.
- [52] Alatuji, "QC-601A," *Manual Thermos Press Forming Machine*, vol. 6777, no. 62, pp. 21–22, 2023.
- [53] Kehinde Adedeji Adekola, "Engineering review food extrusion technology and its applications," *Journal of Food Science and Engineering*, vol. 6, no. 3, pp. 149–168, 2016, doi: 10.17265/2159-5828/2016.03.005.
- [54] F. I. Aryanti and E. C. Pasya, "Purge material berbasis campuran recycled HDPE dan lempung kaolin untuk ekstrusi polipropilena dan masterbatch," *Majalah Kulit, Karet, dan Plastik*, vol. 37, no. 1, pp. 17–26, 2021, doi: 10.20543/mkcp.v37i1.6657.
- [55] M. Sibarani, M. P. Allan, and P. M. Santika, "Perancangan unit ekstruder pada mesin extrusion laminasi fleksible packaging," *Jurnal Teknik Mesin ITI*, vol. 2, no. 2, pp. 42–45, 2018, doi: 10.31543/jtm.v2i2.155.

- [56] C. J. Steel, M. G. Vernaza Leoro, M. Schmiele, R. E. Ferreira, and Y. K. Chang, "Thermoplastic extrusion in food processing," *Thermoplastic Elastomers*, pp. 266–289, 2014, doi: 10.5772/36874.
- [57] M. N. Riaz, *Extruder in food applications*. 2000.
- [58] E. C. Mentari, "Studi sifat thermal produk pencangkakan anhidra differential scanning calorimetry," Universitas Muhammadiyah Sumatera Utara, 2019.
- [59] M. T. H. Mosavian, A. Bakhtiari, and S. Sahebian, "Influence of alumina particles on thermal behavior of high density polyethylene (HDPE)," *Polymer - Plastics Technology and Engineering*, vol. 51, pp. 214–219, 2012, doi: 10.1080/03602559.2011.557820.
- [60] ASTM D638-14, "American society for testing and materials," *Standard Test Method for Tensile Properties of Plastics*, pp. 1–17, 2014, doi: 10.1520/D0638-14.1.
- [61] L. K. Muharrami, "Uji karakterisasi tarik dan termal plastik HDPE dengan filler abu layang dan silane," *Jurnal Rekayasa*, vol. 6, no. 2, pp. 82–88, 2013.
- [62] B. Margono, Haikal, and L. Widodo, "Analisis sifat mekanik material komposit plastik HDPE berpenguat serat ampas tebu ditinjau dari Kekuatan tarik dan bending," *AME (Aplikasi Mekanika dan Energi): Jurnal Ilmiah Teknik Mesin*, vol. 6, no. 2, pp. 56–61, 2020, doi: 10.32832/ame.v6i2.3069.
- [63] H. Shahrajabian and F. Sadeghian, "The investigation of alumina nanoparticles' effects on the mechanical and thermal properties of HDPE/rPET/MAPE blends," *International Nano Letters*, pp. 1–7, 2019, doi: 10.1007/s40089-019-0273-7.
- [64] O. Mysiukiewicz, P. Kosmela, M. Barczewski, and A. Hejna, "Mechanical, thermal and rheological properties of polyethylene-based composites filled with micrometric aluminum powder," *Materials*, vol. 13, no. 1242, pp. 1–17, 2020, doi: 10.3390/ma13051242.
- [65] W. Zhou, "Thermal and dielectric properties of the aluminum particle reinforced linear low-density polyethylene composites," *Polymer Engineering and Science*, pp. 917–924, 2011, doi: 10.1002/pen.