DAFTAR PUSTAKA

[1] E. Mahmuda, S. Savetlana, and D. Sugiyanto, "Pengaruh Panjang Serat Terhadap Kekuatan Tarik Komposit Berpenguat Serat Ijuk dengan Matrik Epoxy," *Jurnal Ilmiah Teknik Mesin*, vol. 1, no. 3, pp. 79–84, 2013.

[2] 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*, vol. 015, no. 3, pp. 1–7, 2018.

[3] E. Melyna, K. S. Nisa, A. Aurel, and L. Fitri, "Pengaruh Penambahan Serbuk Alumina (Al 2 O 3) pada Komposit Serat Kayu Jati Bermatriks Polipropilena The Effect of Alumina (Al 2 O 3) Addition on Teak Powder and Polypropylene Composite Received February 2023 , Revised May 2023 , Accepted for publicat," vol. 29, no. 2, pp. 62–71, 2023.

[4] R. Sadiku *et al.*, *Automotive components composed of polyolefins*. 2017. doi: 10.1016/B978-0-08-101132-4.00015-1.

[5] R. Kartini, D. H, and Sudirman, "Polimer Berpenguat Serat Alam," *Jurnal SainsMateri Indonesia*, vol. 3, no. 3, pp. 30–38, 2002.

[6] N. and R. Vasantha Kumari, "Studies on polypropylene bio composite with sea weeds," *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, vol. 3, no. 3, pp. 1165–1170, 2012.

[7] S. Huda and Y. Yang, "Chemically extracted cornhusk fibers as reinforcement in light-weight poly(propylene) composites," *Macromolecular Materials and Engineering*, vol. 293, no. 3, pp. 235–243, 2008, doi: 10.1002/mame.200700317.

[8] A. M. Youssef, A. El-Gendy, and S. Kamel, "Evaluation of corn husk fibers reinforced recycled low density polyethylene composites," *Materials Chemistry and Physics*, vol. 152, pp. 26–33, 2015, doi: 10.1016/j.matchemphys.2014.12.004.

[9] Y. W. Leong, M. B. A. Bakar, Z. A. M. Ishak, A. Ariffin, and B. Pukanszky, "Leong_et_al-2004-Journal_of_Applied_Polymer_Science," 2003.

[10] A. O. Bouakkaz, A. Albedah, B. B. Bouiadjra, S. M. A. Khan, F. Benyahia, and M. Elmeguenni, "Effect of temperature on the mechanical properties of polypropylene–talc composites," *Journal of Thermoplastic Composite Materials*, vol. 31, no. 7, pp. 896–912, 2017, doi: 10.1177/0892705717729016.

[11] K. Wang *et al.*, "Effect of talc content on the degradation of re-extruded polypropylene/talc composites," *Polymer Degradation and Stability*, vol. 98, no. 7, pp. 1275–1286, 2013, doi: 10.1016/j.polymdegradstab.2013.04.006.

[12] L. Techawinyutham, A. Frick, and S. Siengchin, "Polypropylene/Maleic Anhydride Grafted Polypropylene (MAgPP)/Coconut Fiber Composites," *Advances in*

Mechanical Engineering, vol. 8, no. 5, pp. 1–9, 2016, doi: 10.1177/1687814016645446.

[13] A. Hassan, N. A. Rahman, and R. Yahya, "Extrusion and injection-molding of glass fiber/MAPP/polypropylene: Effect of coupling agent on DSC, DMA, and mechanical properties," *Journal of Reinforced Plastics and Composites*, vol. 30, no. 14, pp. 1223–1232, 2011, doi: 10.1177/0731684411417916.

[14] E. Melyna and A. P. Afridana, "The Effect of Coffee Husk Waste Addition with Alkalisation Treatment on the Mechanical Properties of Polypropylene Composites," *Equilibrium Journal of Chemical Engineering*, vol. 7, no. 1, p. 14, 2023, doi: 10.20961/equilibrium.v7i1.68556.

[15] Irfai, "Pengaruh Konsentrasi Larutan KOH Terhadap Kekuatan Tarik dan Struktur Mikro Komposit Hibrid Serat Rami dan Serat Bambu," no. 1, pp. 1–8, 2020.

[16] H. Al Abdallah, B. Abu-Jdayil, and M. Z. Iqbal, "The Effect of Alkaline Treatment on Poly(Lactic Acid)/Date Palm Wood Green Composites for Thermal Insulation," *Polymers*, vol. 14, no. 6, 2022, doi: 10.3390/polym14061143.

[17] R. Sidik, "Studi Pengaruh Penambahan Polypropylene Dan Low Density Polyethylene Terhadap Sifat Fisik Dan Mekanik Wood Plastic Composite Untuk Aplikasi Genteng Ramah Lingkungan," pp. 1–112, 2018.

[18] Wypych, *Thermoplastic polyurethanes*. 2016.

[19] Yuswanto, "Analisis Sem (Scanning Electron Microscope) Dan Foto Mikro Pada Material Komposit Serat Tangkai Jagung Dengan Matriks Plastik Polipropilen," *Program Studi Teknik Mesin Fakultas Teknik Universitas Muhammadiyah Surakarta*, pp. 1–17, 2019.

[20] F. I. Aryanti, "Pembuatan Komposit Polimer Polipropilena/Talk/Masterbatch Hitam Pada Cover Tail," *Jurnal Teknologi dan Manajemen*, vol. 19, no. 1, pp. 1–6, 2021, doi: 10.52330/jtm.v19i1.8.

[21] Maddah, "Polypropylene as a Promising Plastic: A Review," *American Journal of Polymer Science*, vol. 6, no. 1, pp. 1–11, 2016, doi: 10.5923/j.ajps.20160601.01.

[22] Syahirul Rosadi, "Pengaruh fraksi volume kulit jagung dan temperatur injeksi terhadap kekuatan impak biokomposit matriks polipropilen," 2011.

[23] Mutiah and N. Surdia, "Karakteristik Kekuatan Tarik dan Derajat Kristalinitas Propilenan Teriradiasi," *Jurnal Sains dan Teknologi Nuklir Indonesia*, vol. 11, no. 1. pp. 1–10, 2011.

[24] A. N. Wagiswari and M. B. Prasetyo, "Pabrik Polipropilen Dari Propilen Dan Etilen Dengan Polimerisasi Fase Gas Teknologi Unipol," *Institut Teknologi Sepuluh Nopember*, pp. 1–123, 2016.

[25] Hisham A. Maddah, "Polypropylene as a Promising Plastic: A Review," *American Journal of Polymer Science*, vol. 6, no. 1, pp. 1–11, 2016, doi: 10.5923/j.ajps.20160601.01.

[26] S. Yin, R. Tuladhar, M. Combe, T. Collister, M. V Jacob, and R. A. Shanks, "Mechanical properties of recycled plastic fibres for reinforcing concrete," *Fibre Concrete 2013*, pp. 1–10, 2013.

[27] A. Ginting, "Pemanfaatan Limbah Kulit Jagung untuk Produk Modular dengan Teknik Pilin (Cornhusk Industrial Waste for Modular Product with Twisting Technique)," *Jurnal Dinamika Kerajinan dan Batik*, vol. 32, no. 1, pp. 51–62, 2015.

[28] R. N. Iriany, M. Yasin, and A. Takdir, "Asal, Sejarah, Evolusi, dan Taksonomi Tanaman Jagung," *Teknik Produksi dan Pengembangan*, pp. 1–15, 2008.

[29] T. Bantacut, M. T. Akbar, and Y. R. Firdaus, "Pengembangan Jagung untuk Ketahanan Pangan, Industri dan Ekonomi," *Jurnal Pangan*, vol. 24, no. 2, pp. 135–148, 2015.

[30] R. Abdiana and D. Indria Anggraini, "Rambut Jagung (Zea mays L. Sebagai Alternatif Tabir Surya," *Majority*, vol. 7, no. 1, pp. 31–35, 2017.

[31] N. Ivanova, V. Gugleva, M. Dobreva, I. Pehlivanov, S. Stefanov, and V. Andonova, "We are IntechOpen , the world ' s leading publisher of Open Access books Built by scientists , for scientists TOP 1 %," *Intech*, vol. i, no. tourism, p. 13, 2016.

[32] dan S. Prasetyo, "Pemanfaatan Serat Kulit Jagung Sebagai Bahan Campuran Pembuatan Plafon Eternit," *Rekayasa Teknik Sipil Vol.*, vol. 1, no. 1, pp. 144–155, 2017.

[33] Fikri dan Murni, "Pemanfaatan Kulit Jagung dan Tongkol Jagung (Zea Mays) Sebagai Bahan Dasar Pembuatan Kertas Seni dengan Penambahan Natrium Hidroksida (NaOH)," *Inovasi Proses*, vol. 7, no. 8.5.2017, pp. 2003–2005, 2022.

[34] Food and Agriculture Organization/FAO, "Produksi Jagung Indonesia Capai 22,5 Juta Ton Pada Tahun 2020." Accessed: Apr. 06, 2023. [Online]. Available: https://dataindonesia.id/sektor-riil/detail/produksi-jagung-indonesia-capai-225-juta-ton-pada-2020

[35] M. Kurniati and S. P. , Maddu Akhirudin, "Produksi Film Biomulsa Dari Klobot Jagung - Lldpe Untuk Aplikasi Di Bidang Hortikultura," *Jurnal Teknologi Industri Pertanian*, vol. 29, no. 1, pp. 97–105, 2019, doi: 10.24961/j.tek.ind.pert.2019.29.1.97.

[36] A. O. A. Mohammed, Z. Hasan, "Corn: Its Structure, Polymer, Fiber, Composite, Properties, and Applications," vol. LXX, no. 1, pp. 105–122, 2022.

[37] M. A. Fuqua and C. A. Ulven, "Characterization of polypropylene/corn fiber composites with maleic anhydride grafted polypropylene," *Journal of Biobased Materials and Bioenergy*, vol. 2, no. 3, pp. 258–263, 2008, doi: 10.1166/jbmb.2008.405.

[38] S. Salman, I. M. A. Sayoga, and R. Maulana, "Pengaruh Fraksi Volume Serat Kulit Jagung terhadap Kekuatan Tarik dan Penyerapan Air Komposit Polyurethane," *Jurnal Teknik Mesin*, vol. 7, no. 1, p. 29, 2018, doi: 10.22441/jtm.v7i1.2268.

[39] F. I. Aryanti, “Pembuatan Komposit Polimer Polipropilena/Talk/Masterbatch Hitam Pada Cover Tail,” *Jurnal Teknologi dan Manajemen*, vol. 19, no. 1, pp. 1–6, 2021, doi: 10.52330/jtm.v19i1.8.

[40] Pubchem, “Talc.” Accessed: Aug. 02, 2023. [Online]. Available: https://pubchem.ncbi.nlm.nih.gov/compound/Talc#section=Structures

[41] Y. Jahani, “Comparison of the effect of mica and talc and chemical coupling on the rheology, morphology, and mechanical properties of polypropylene composites,” *Polymers for Advanced Technologies*, vol. 22, no. 6, pp. 942–950, 2011, doi: 10.1002/pat.1600.

[42] Erfina dkk, “Potensi zeolit alam lampung sebagai filler dalam komposit polipropilena untuk bahan baku industri komponen otomotif,” *Jurnal Teknologi dan Manajemen*, vol. 18, no. 2, pp. 7–9, 2020.

[43] Y. Adityawardhana, “Studi Penambahan Coupling Agent Anhidrat Maleat Terhadap Sifat Mekanik Dan Morfologi Komposit Serat Karbon / Epoksi Untuk Lambung Kapal,” *Institut Teknologi Sepuluh Nopember*, 2018.

[44] U. Herrmann and G. Emig, “Liquid Phase Hydrogenation of Maleic Anhydride and Intermediates on Copper-Based and Noble Metal Catalysts,” *Industrial and Engineering Chemistry Research*, vol. 36, no. 8, pp. 2885–2896, 1997, doi: 10.1021/ie960229g.

[45] A. Hassan, N. A. Rahman, and R. Yahya, “Extrusion and injection-molding of glass fiber/MAPP/polypropylene: Effect of coupling agent on DSC, DMA, and mechanical properties,” *Journal of Reinforced Plastics and Composites*, vol. 30, no. 14, pp. 1223–1232, 2011, doi: 10.1177/0731684411417916.

[46] N. S. Othman *et al.*, “Tensile and morphological studies of polypropylene/empty fruit bunch composite: Effect of maleic anhydride-grafted polypropylene,” *IOP Conference Series: Materials Science and Engineering*, vol. 429, no. 1, 2018, doi: 10.1088/1757-899X/429/1/012015.

[47] M. Sanjay and B. Yogesha, “Studies on Natural/Glass Fiber Reinforced Polymer Hybrid Composites: An Evolution,” *Materials Today: Proceedings*, vol. 4, no. 2, pp. 2739–2747, 2017, doi: 10.1016/j.matpr.2017.02.151.

[48] J. X. Sun, X. F. Sun, H. Zhao, and R. C. Sun, “Isolation and characterization of cellulose from sugarcane bagasse,” *Polymer Degradation and Stability*, vol. 84, no. 2, pp. 331–339, 2004, doi: 10.1016/j.polymdegradstab.2004.02.008.

[49] (2011) B. Maryanti, “Pengaruh Alkalisasi Komposit Serat Kelapa-Poliester Terhadap Kekuatan Tarik,” *Rekayasa Mesin*, vol. 2, no. 2, pp. 123–129, 2011.

[50] 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,” *Rekayasa*, vol. 15, no. 3, pp. 354–361, 2022, doi: 10.21107/rekayasa.v15i3.16713.

[51] K. Witono, Y. Surya Irawan, R. Soenoko, and H. Suryanto, “Pengaruh Perlakuan Alkali (NaOH) Terhadap Morfologi dan Kekuatan Tarik Serat Mendong,” *Jurnal Rekayasa Mesin*, vol. 4, no. 3, pp. 227–234, 2013.

[52] T. Ngo, “Composite and Nanocomposite Materials - From Knowledge to Industrial Applications,” *Composite and Nanocomposite Materials - From Knowledge to Industrial Applications*, 2020, doi: 10.5772/intechopen.80186.

[53] B. A. Harsojuwono and I. W. Arnata, “Teknologi Polimer Industri Pertanian,” *Teknologi Polimer*, p. 108, 2015.

[54] K. Goda, M. S. Sreekala, S. K. Malhotra, K. Joseph, and S. Thomas, “Part One Introduction to Polymer Composites,” *Polymer Composites, Biocomposites*, vol. 1, pp. 1–16, 2012.

[55] M. Mardiyati, “Komposit Polimer Sebagai Material Tahan Balistik,” *Jurnal Inovasi Pertahanan dan Keamanan*, vol. 1, no. 1, pp. 20–28, 2018, doi: 10.5614/jipk.2018.1.1.3.

[56] M. Sulaiman and M. H. Rahmat, “Kajian Potensi Pengembangan Material Komposit Polimer Dengan Serat Alam Untuk Produk Otomotif,” *Sistem*, vol. 4, no. 1, pp. 9–15, 2018.

[57] Subyakto and M. Gopar, “Tinjauan penelitian terkini tentang pemanfaatan komposit serat alam untuk komponen otomotif review on current research on utilization of natural fiber composites for automotive components,” *Journal Tropical Wood Science & Technology*, vol. 7, no. 2, pp. 92–97, 2009.

[58] T. G. Chiciudean, *Production methods and characteristics of bacterial-cellulose composites*. 2011.

[59] Harper, *Handbook of Plastics , Elastomers , and Composites*. 2004.

[60] N. H. Sari and S. Sinarep, “Analisa Kekuatan Bending Komposit Epoxy Dengan Penguatan Serat Nilon,” *Dinamika Teknik Mesin*, vol. 1, no. 1, 2011, doi: 10.29303/d.v1i1.130.

[61] F. Y. Utama and H. Zakiyya, “Pengaruh variasi arah serat komposit berpenguat hibrida fiberhybrid terhadap kekuatan tarik dan densitas material dalam aplikasi body part mobil,” *Mekanika*, vol. 15, no. 2, pp. 60–69, 2016.

[62] F. Y. Utama and H. Zakiyya, “Pengaruh variasi arah serat komposit berpenguat hibrida fiberhybrid terhadap kekuatan tarik dan densitas material dalam aplikasi body part mobil,” *Mekanika*, vol. 15, no. 2, pp. 60–69, 2016.

[63] R. D. N. Bifel, E. U. K. Maliwemu, and D. G. H. Adoe, “Pengaruh Perlakuan Alkali Serat Sabut Kelapa Terhadap Kekuatan Tarik Komposit Polyester,” *Lontar*, vol. 02, no. 01, pp. 61–68, 2015.

[64] E. K. Silviya, S. Varma, G. Unnikrishnan, and S. Thomas, “Compounding and mixing of polymers,” *Advances in Polymer Processing: From Macro- To Nano-Scales*, pp. 71–105, 2009, doi: 10.1533/9781845696429.1.71.

[65] S. Supraptiningsih, “Pemanfaatan minarex sebagai secondary plasticizer untuk pembuatan kompon sepatu boot PVC,” *Majalah Kulit, Karet, dan Plastik*, vol. 12, no. 24, p. 65, 1997, doi: 10.20543/mkkp.v12i23.362.

[66] P. P. Polimer, “Praktik pemrosesan polimer,” 2021.

[67] E. K. Silviya, S. Varma, G. Unnikrishnan, and S. Thomas, “Compounding and mixing of polymers,” *Advances in Polymer Processing: From Macro- To Nano-Scales*, pp. 71–105, 2009, doi: 10.1533/9781845696429.1.71.

[68] STMI, “Petunjuk praktik komposit polimer,” 2019.

[69] H. Tjahjanti, *Buku Ajar Mata Kuliah Pengetahuan Bahan Teknik Diterbitkan oleh UMSIDA PRESS*. 2019.

[70] ASTM, “Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials. D790,” *Annual Book of ASTM Standards*, no. January, pp. 1–12, 2002.

[71] ASTM D638-14, “Standard Test Method for Tensile Properties of Plastics,” *ASTM International*, vol. 82, no. C, pp. 1–15, 2014, doi: 10.1520/D0638-14.1.

[72] C. Onuoha, O. O. Onyemaobi, C. N. Anyakwo, and G. C. Onuegbu, “Effect Of Filler Loading And Particle Size On The Mechanical Properties Of Periwinkle Shell-Filled Recycled Polypropylene Composites,” *American Journal of Engineering Research*, vol. 6, no. 4, pp. 72–79, 2017.

[73] C. K. Schoff, “Differential scanning calorimetry,” *CoatingsTech*, vol. 5, no. 7, p. 60, 2008.

[74] M. Thoriq Maulana, M. Hilmi Habibullah, Sunandar, N. Sholihah, M. Ainul Rifqi L. P., and F. Fahrudin, “Laporan Akhir Laporan Akhir,” *Laporan Akhir*, vol. 1, no. 201310200311137, pp. 78–79, 2015.

[75] “Differential Scanning Calorimetry (DSC) | Leibniz Institut.” Accessed: Apr. 04, 2023. [Online]. Available: https://www.ipfdd.de/en/research/institute-of-macromolecular-chemistry/center-macromolecular-structure-analysis/analytical-methods/thermal-analysis/differential-scanning-calorimetry-dsc/

[76] S. Raharjo, “Studi Pengaruh Kadar Komonomer Etilena terhadap Karakteristik Polipropilena (PP) Homopolimer grade Thermoforming,” *Skripsi*, 2009.

[77] N. M. Nurazzi *et al.*, “Thermogravimetric analysis properties of cellulosic natural fiber polymer composites: A review on influence of chemical treatments,” *Polymers*, vol. 13, no. 16, 2021, doi: 10.3390/polym13162710.

[78] J. S. S. Neto, H. F. M. de Queiroz, R. A. A. Aguiar, and M. D. Banea, “A review on the thermal characterisation of natural and hybrid fiber composites,” *Polymers*, vol. 13, no. 24, 2021, doi: 10.3390/polym13244425.