

DAFTAR PUSTAKA

- ACI Committee 226. 1989. *Use of Fly Ash in Concrete*.
- ASTM International. (2003). ASTM C 33. *Standard Specification for Concrete Aggregates*. United States: ASTM Internasional.
- Babak, F. *et al.* (2014) "Preparation and mechanical properties of graphene oxide: Cement nanocomposites," *The Scientific World*, 2014(1), hal. 1–10. Tersedia pada: <https://doi.org/10.1155/2014/276323>.
- Cerro-prada, E., Pacheco-torres, R. dan Varela, F. (2021) "Effect of Multi-Walled Carbon Nanotubes on Strength and Electrical Properties of Cement Mortar," *MDPI*, 14(1), hal. 1–13. Tersedia pada: <https://doi.org/10.3390/ma14010079>.
- Cui, H. *et al.* (2016) "Fabrication of Polycarboxylate/Graphene Oxide Nanosheet Composites by Copolymerization for Reinforcing and Toughening Cement Composites," *Cement and Concrete Composites*, 77(2016), hal. 1–8. Tersedia pada: <https://doi.org/10.1016/j.cemconcomp.2016.12.007>.
- Danial, N.S. *et al.* (2019) "Graphene geopolymer hybrid: A review on mechanical properties and piezoelectric effect," *IOP Conference Series: Materials Science and Engineering*, 572(1), hal. 1–9. Tersedia pada: <https://doi.org/10.1088/1757-899X/572/1/012038>.
- Davidotis, J. (1994) "Properties of Geopolymer Cements," *First International Conference on Alkaline Cements and Concretes.*, (October 1994), hal. 131–149.
- Du, Y. *et al.* (2020) "Hybrid graphene oxide/carbon nanotubes reinforced cement paste: An investigation on hybrid ratio," *Construction and Building Materials*, 261. Tersedia pada: <https://doi.org/10.1016/j.conbuildmat.2020.119815>.
- Dwandaru, W. S. B., Wijaya, R. I. W., & Parwati, L. D. (2019). *Nanomaterial Graphene Oxide Sintesis dan Karakterisasinya*. UNY Press, 1–156.
- Edenia, B., & Nasrani, N. (2021). *Analisis Mikrostruktur Dan Sifat Elastis Beton Dengan Menggunakan Micro- Computed Tomography (micro-CT)*. November.
- Febrianto (2014) "Penelitian Kuat Tekan dan Berat Jenis Mortar Untuk Dinding Panel dengan Membandingkan Penggunaan Pasir Bangka dan Pasir

- Baturata dengan Tambahan Foaming Agent dan Silica Fume,” *Jurnal Teknik Sipil, Universitas Sriwijaya*, 2(2), hal. 287–296.
- Gao, Y. *et al.* (2021) “Studies on combined effects of graphene oxide-fly ash hybrid on the workability, mechanical performance and pore structures of cementitious grouting under high W/C ratio,” *Construction and Building Materials*, 281, hal. 1–11. Tersedia pada: <https://doi.org/10.1016/j.conbuildmat.2021.122578>.
- Guo, J. *et al.* (2022) “Strength Analysis of Cement Mortar with Carbon Nanotube Dispersion Based on Fractal Dimension of Pore Structure,” *Fractal and Fractional*, 6(10), hal. 1–20. Tersedia pada: <https://doi.org/10.3390/fractalfract6100609>.
- Hamzaoui, R. *et al.* (2012) “Optimal Carbon Nanotubes Concentration Incorporated In Mortar and Concrete,” *Advanced Materials Research*, 587, hal. 107–110. Tersedia pada: <https://doi.org/10.4028/www.scientific.net/AMR.587.107>.
- Helwig, N.E., Hong, S. dan Hsiao-wecksler, E.T. (2017) “Nanomaterial,” *Departemen Fisika*, hal. 10.
- (huang & Zhao, n.d.2019) Korelasi kuat Tekan Dengan Penyerapan Air Fly Ash Mortar Semen Diketahui Dalam Air (Naibaho & Rahman, 2020). Efek Penambahan Fly Ash Tipe C Terhadap Kuat Tekan Mortar
- Hu, S. *et al.* (2020) “Modification effects of carbon nanotube dispersion on the mechanical properties, pore structure, and microstructure of cement mortar,” *MDPI*, 13(5), hal. 1–15. Tersedia pada: <https://doi.org/10.3390/ma13051101>.
- Ikhsanto, jurusan teknik mesin L.N. (2020) *Analisis Pengaruh Pemanasan Awal Carbon Nanotube Terhadap Sifat Mekanik dan Keausan Aluminium Komposit Dalam Proses Stir Casting*. Universitas Hasanuddin.
- Jabbar, A. (2012) *Simulasi Dinamika Molekuler Adsorpsi Hidrogen Pada Carbon Nanotube Dengan Variasi Temperatur*. Universitas Indonesia.
- Lee, H.S. *et al.* (2018) “Durability performance of CNT and nanosilica admixed cement mortar,” *Construction and Building Materials*, 159, hal. 463–472.
- Liu, S. *et al.* (2022) “Efficient Use of Graphene Oxide in Layered Cement Mortar,” *MDPI*, 15(6), hal. 1–20. Tersedia pada: <https://doi.org/10.3390/ma15062181>.
- Long, Z. *et al.* (2022) “The Effects of Graphene Oxide-Silica Nano-Hybrid Materials on the Rheological Properties, Mechanical Properties, and

- Microstructure of Cement-Based Materials,” *MDPI*, 15(12), hal. 1–24.
Tersedia pada: <https://doi.org/10.3390/ma15124207>.
- Marthinus, A. P., Sumajouw, M. D. J., & Windah, R. S. (2015). Pengaruh Penambahan Abu Terbang (Fly Ash) Terhadap Kuat Tarik Belah Beton. *Jurnal Sipil Statik*, 3(11), 729–736.
<https://ejournal.unsrat.ac.id/index.php/jss/article/view/10662>
- Naibaho, A. dan Rahman, A. (2020) “Efek Penambahan Fly Ash Tipe C terhadap Kuat Tekan Mortar,” *Reka Buana : Jurnal Ilmiah Teknik Sipil dan Teknik Kimia*,5(1),hal.1–51.Tersediapada:
<https://doi.org/10.33366/rekabuana.v5i1.1612>.
- Nasional, B. S. (1990). SNI 03-1974-1990 Metode Pengujian Kuat Tekan Beton Nasional, Badan Standardisasi, 1990. SNI 03-1968-1990. Metode Pengujian Analisis Saringan Agregat Halus dan Kasar.
- Nasional, Badan Standardisasi, 1990a. SNI 03-1971-1990, Metode Pengujian Kadar Air Agregat. Jkt. Id Bsn.
- Nasional, B.S., 2002c. SNI 03-2847-2002: Tata Cara Perhitungan Struktur Beton Untuk Bangunan Gedung.
- Nasional, B.S., 1998. SNI 03-4804-1998.“. Metode Pengujian Bobot Isi dan Rongga Udara Dalam Agregat.
- Nasional, B.S., 2002a. SNI 03-6820-2002: Spesifikasi Agregat Halus Untuk Pekerjaan Adukan dan Plesteran dengan Bahan Dasar Semen.
- Nasional, Badan Standardisasi. 2000. SNI 03-6433-2000, “Metode Pengujian Kerapatan, Penyerapan dan Rongga Dalam Beton Yang Telah Mengeras”. Standar Nasional Indonesia (SNI).
- Nasional, B.S., 2002d. SNI 03-6825-2002: Metode Pengujian Kekuatan Tekan Mortar Semen Portland untuk Pekerjaan Sipil.
- Nasional, Badan Standardisasi, 2002. SNI 03-6882-2002, Spesifikasi Mortar Untuk Pekerjaan Pasangan, Badan Standardisasi Nasional.
- Nasional, B.S., 2004. SNI 15-2049-2004. Semen Portland.
- Nasional, B.S., 1991. SNI 15-2531-1991 Metode Pengujian Berat Jenis SemenPortland. Jkt. Badan Stand. Nas.
- Nasional, Badan Standardisasi, 2008. SNI 1970: 2008 Tentang Cara Uji Berat JenisDan Penyerapan Air Agregat Halus. Badan Standardisasi Nas. Jkt.

- Nasional, Badan Standardisasi. 2014. “SNI 2460:2014 Spesifikasi Abu Terbang Batubara Dan Pozolan Alam Mentah Atau Yang Telah Dikalsinasi Untuk Digunakan Dalam Beton.” 16.
- Nasional, B.S., 2014. SNI 2461-2014. “. Spesifikasi Agregat Ringan Untuk Beton Strukt. Badan Standarisasi Nas. Jkt. 1–16.
- Nasional, Badan Standarisasi, 2014. SNI 6882-2014, Spesifikasi Mortar Untuk Pekerjaan Pasangan, Badan Standarisasi Nasional.
- Nasional, B.S., 2012. SNI 7656: 2012. Tata Cara Pemilihan Campuran Untuk Beton Norm. Beton Berat Dan Beton Massa.
- Oner, A., Akyuz, S. dan Yildiz, R. (2005) “An experimental study on strength development of concrete containing fly ash and optimum usage of fly ash in concrete,” *Cement and Concrete Research*, 35(6), hal. 1165–1171. Tersedia pada: <https://doi.org/10.1016/j.cemconres.2004.09.031>.
- Penelitian, A., Meng, S., Ouyang, X., Fu, J., & Niu, Y. (2021). *Peran graphene / graphene oksida dalam hidrasi semen*. 768–778.
- Pesaralanka, V. dan Khed, V.C. (2020) “Materials Today : Proceedings Flowability and compressive strength test on self compacting mortar using graphene oxide,” *Materials Today: Proceedings*, 33, hal. 491–495. Tersedia pada: <https://doi.org/10.1016/j.matpr.2020.05.067>.
- Pradana, T., Monita, O., & Sitompul, I. R. (2016). 185066-ID-kuat-tekan-dan-porositas-beton-semen-opc. *Jom FTEKNIK*, Vol 3, 1–10.
- Rafitasari, Y. *et al.* (2016) “Sintesis Graphene Oxide Dan Reduced Graphene Oxide,” *Prosiding Seminar Nasional Fisika (E-Journal) SNF2016*, 5, hal. 1–5. Tersedia pada: <https://doi.org/10.21009/0305020218>.
- Rahman, A. (2014) *Pengaruh Penambahan Serat Roving Pada Mortar Semen*. Universitas Semarang.
- Rangan, P.R. *et al.* (2020) “Mortar Geopolimer Abu Sekam Padi Berbahan Dasar Limbah Abu Batu Bara Hasil Pembakaran Asphalt Mixing Plant,” *Journal Dynamic Saint*, 5(1), hal. 927–938. Tersedia pada: <https://doi.org/10.47178/dynamicsaint.v5i1.961>.
- Rozi, M.F., Johannes Tarigan dan Ahmad Perwira (2020) “Analisis Sifat Mekanik Beton Geopolymer Berbahan Dasar Fly Ash PLTU Pangkalan Susu,” *Jurnal HealthSains*, 1(5), hal. 567–579. Tersedia pada: <https://doi.org/10.46799/jsa.v1i5.82>.
- Rozi, M.F. dan Tarigan, J. (2020) “Analisis Sifat Mekanik Beton Geopolymer

- Berbahan dasar Fly Ash PLTU Pangkalan Susu,” 1(5), hal. 567–579. Tersedia pada: <https://doi.org/10.46799/jsa.v1i5.82>
- Sihombing, A. P., Afrizal, Y., & Gunawan, A. (2019). Pengaruh Penambahan Arang Batok Kelapa Terhadap Kuat Tekan Mortar. *Inersia, Jurnal Teknik Sipil*, 10(1), 31–38. <https://doi.org/10.33369/ijts.10.1.31-38>
- Syarif, H. A. (2023). *Analisis Gugus Fungsi Pada Senyawa Mikrostruktur Mortar Geopolimer Abu Sawit Dengan Penambahan Portland Composite Cement (PCC)*. 15(2), 104–110.
- Senff, L. *et al.* (2012) “Effect of nano-SiO₂ and nano-TiO₂ addition on the rheological behavior and the hardened properties of cement mortars,” *Materials Science and Engineering: A*, 532, hal. 354–361.
- Solikin, M. (2007) “Upaya Meningkatkan Performa High Volume Fly Ash Concrete Sebagai Bahan Konstruksi Ramah Lingkungan : Sebuah Kajian Literatur,” *Simposium Nasional RAPI XI FT UMS*, hal. 132–138.
- Son, D.H. *et al.* (2023) “Mechanical properties of mortar and concrete incorporated with concentrated graphene oxide, functionalized carbon nanotube, nano silica hybrid aqueous solution,” *Case Studies in Construction Materials*, 18, hal. 1–14. Tersedia pada: <https://doi.org/10.1016/j.cscm.2022.e01603>.
- Syuryadi, P.A. (2011) *Kuat Tekan , Density , Absorpsi Dan Modulus Elastisitas Mortar Campuran Semen , Abu Sekam Padi Dan Precious Slag Ball Dengan Compressive Strength , Density , Absorption and Modulus of Elasticity Mortar Mixed Cement , Rise Husk Ash an.* Universitas Indonesia.
- Wang, Y., Yang, J. dan Ouyang, D. (2019) “Effect of graphene oxide on mechanical properties of cement mortar and its strengthening mechanism,” *Materials*, 12(22), hal. 1–18. Tersedia pada: <https://doi.org/10.3390/ma12223753>.
- Widjojoko Lilies (2010) “Pengaruh Sifat Kimia Semen Terhadap Unjuk Kerja Mortar Portland,” 1(1), hal. 52–59. Tersedia pada: <https://doi.org/10.36448/jts.v1i1.255>.
- Wenno, R., Wallah, S. E., & Pandaleke, R. (2014). Kuat Tekan Mortar Dengan Menggunakan Abu Terbang (Fly Ash) Asal Pltu Amurang Sebagai Substitusi Parsial Semen. *Jurnal Sipil Statik*, 2(5), 252–259
- Zuraidah, S. dan Hastono, B. (2018) “Pengaruh Variasi Komposisi Campuran Mortar Terhadap Kuat Tekan,” *Ge-STRAM: Jurnal Perencanaan dan Rekayasa Sipil*, 1(1), hal. 8–13. Tersedia pada: <https://doi.org/10.25139/jprs.v1i1.801>.