

## DAFTAR PUSTAKA

- ACI 232.2R-96. (1996). *Use of Fly Ash in Concrete*.
- Ahmad, I. A., Pertiwi, N., & Taufiq, N. A. S. (2017). *Beton Ramah Lingkungan*. CV. Agus Corp.
- Alterary, S. S., & Marei, N. H. (2021). Fly ash properties, characterization, and applications: A review. In *Journal of King Saud University - Science* (Vol. 33, Issue 6). Elsevier B.V. <https://doi.org/10.1016/j.jksus.2021.101536>
- American Concrete Institute. (2019). ACI 318-19. *Building Code Requirements for Structural Concrete* . <https://doi.org/10.14359/51716937>
- American Standard Testing and Material. (n.d.-a). ASTM C88. *Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate*.
- American Standard Testing and Material. (n.d.-b). ASTM C618-22. *Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete*.
- American Standard Testing and Material. (1986). ASTM-C33-86. *Standard Specification for Concrete Aggregates*.
- American Standard Testing and Methode. (1995). ASTM C 125. *Standard Definition of Terminology Relating to Concrete and Concrete Aggregates*.
- American Standard Testing and Methode. (2017). ASTM C494. *Standard Specification for Chemical Admixtures for Concrete*.
- Anwar, M., & Makhlof, A. A. (2021). *PERFORMANCE OF FLY ASH CONCRETE AGAINST SULFATE ATTACK* (Vol. 49, Issue 2).
- ASTM C 593-82. (n.d.). Standard Specification for Fly Ash and Other Pozzolans for Use with Lime for Soil Stabilization,. In *Annual Books of ASTM Standards*.
- ASTM C150-07. (n.d.). *Standard Specification for Portland Cement*. [www.astm.org](http://www.astm.org),
- Badan Standardisasi Nasional. (1989). SK SNI S-04-1989-F. *Spesifikasi Bahan Bangunan Bagian A (Bahan Bangunan Bukan Logam)*.

- Badan Standardisasi Nasional. (1991). SK SNI T-15-1991-03. *Tata Cara Perhitungan Struktur Beton Untuk Bangunan Gedung*.
- Badan Standardisasi Nasional. (2002a). SNI 03-2847-2002. *Tata Cara Perhitungan Struktur Beton Untuk Bangunan Gedung*.
- Badan Standardisasi Nasional. (2002b). SNI 03-6820-2002. *Spesifikasi Agregat Halus Untuk Pekerjaan Adukan Dan Plesteran Dengan Bahan Dasar Semen*.
- Badan Standardisasi Nasional. (2008). SNI 3407-2008. *Cara Uji Sifat Kekakalan Agregat Dengan Cara Perendaman Menggunakan Larutan Natrium Sulfat Atau Magnesium Sulfat*.
- Badan Standardisasi Nasional. (2011a). SNI 1974:2011. *Cara Uji Kuat Tekan Beton Dengan Benda Uji Silinder*. www.bsn.go.id
- Badan Standardisasi Nasional. (2011b). SNI 2493:2011. *Tata Cara Pembuatan Dan Perawatan Benda Uji Beton Di Laboratorium*. www.bsn.go.id
- Badan Standardisasi Nasional. (2015). SNI 2049:2015. *Semen Portland*.
- Becerra-Duitama, J. A., & Rojas-Avellaneda, D. (2022). Pozzolans: A review. *Engineering and Applied Science Research*, 49(4), 495–504. <https://doi.org/10.14456/easr.2022>
- Best, J. F., & Lane, R. O. (1980). Testing for Optimum Pumpability of Concrete. *Concrete International: Design & Construction*, 2(10), 9–17.
- British Standard. (1997). BS 5328. *Guide to Specifying Concrete*.
- Chowdary, N. B., Mahajan, A., & Jaggi, S. (2023). Investigating the effect of Manufactured sand and Silica Fume on the properties of Concrete. *IOP Conference Series: Materials Science and Engineering*, 1291(1), 012027. <https://doi.org/10.1088/1757-899x/1291/1/012027>
- Darwis, F., & Banggu, I. (2018). *The Effects of Volcanic Ash on The Strength and Permeability Mortar*.
- Esquinas, A. R., Álvarez, J. I., Jiménez, J. R., & Fernández, J. M. (2018). Durability of self-compacting concrete made from non-conforming fly ash from coal-fired power plants. *Constr. Build. Mater*, 9931006.
- Fatika, R. D., Mahardana, Z. B., Lailiya, H., Nisa', K., Fahmi, M. I. F., Ardianto, R. P., & Widyakrama, O. T. (2023). Meningkatkan Kapasitas Kuat Tekan

- Beton dengan Kendala Kadar Lumpur Agregat Halus. *CIVED*, 10(1), 190. <https://doi.org/10.24036/cived.v10i1.121338>
- Ghazali, N., Muthusamy, K., Embong, R., Rahim, I. S. A., Muhamad Razali, N. F., Yahaya, F. M., Ariffin, N. F., & Wan Ahmad, S. (2021). Effect of Fly Ash as Partial Cement Replacement on Workability and Compressive Strength of Palm Oil Clinker Lightweight Concrete. *IOP Conference Series: Earth and Environmental Science*, 682(1). <https://doi.org/10.1088/1755-1315/682/1/012038>
- Guo, J. J., Liu, P. Q., Wu, C. L., & Wang, K. (2021). Effect of dry–wet cycle periods on properties of concrete under sulfate attack. *Applied Sciences (Switzerland)*, 11(2), 1–17. <https://doi.org/10.3390/app11020888>
- Hendrawati, N., Dwi Rahmayanti, E., & Dyah Priapnasar, E. (2018). Studi Pembuatan Durable Cement dengan Penambahan Pozzolan Silica Fume. *Jl. Soekarno-Hatta*, 2(1), 27. [www.jtkl.polinema.ac.id](http://www.jtkl.polinema.ac.id)
- Indriyanto, L. A., Saputra, A., & Sulistyono, D. D. (2020). PENGARUH AIR LAUT PADA MASA PERAWATAN TERHADAP INFILTRASI ION KLORIDA PADA BETON DENGAN PENAMBAHAN FLY ASH 12,5%. *Jurnal Riset Rekayasa Sipil Universitas Sebelas Maret*, 3(2), 61–67.
- Jaworska-Wędzińska, M., & Jasińska, I. (2022). Durability of mortars with fly ash subject to freezing and thawing cycles and sulfate attack. *Materials*, 15(1). <https://doi.org/10.3390/ma15010220>
- Kushartomo, W., Makarim, C. A., F.X. Supartono, & Sugandar Sumawiganda. (2013). Pengaruh Penambahan Quartz Powder pada Reactive Powder Concrete terhadap Terbentuknya Kalsium-Silikat-Hidrat. *Desember*, 20(3).
- Kushartomo, W., & Prabowo, A. (2019). The Application of Sodium Acetate as Concrete Permeability-Reducing Admixtures. *IOP Conference Series: Materials Science and Engineering*, 508(1). <https://doi.org/10.1088/1757-899X/508/1/012009>
- Lewis, R. (2017). The role of microsilica in sustainable concrete. *MATEC Web of Conferences*, 1–18. <https://doi.org/10.1051/matecconf/20171200> ASCMCES-17 2011

- Li, Z. (2011). *Advanced Concrete Technology*. John Wiley & Sons, Inc.
- Lilies Widodojoko. (2010). Pengaruh Sifat Kimia Terhadap Unjuk Kerja Mortar. *Jurnal Teknik Sipil UBL*, 1(1), 52–59.
- Liu, J., Li, A., Yang, Y., Wang, X., & Yang, F. (2022). Dry–Wet Cyclic Sulfate Attack Mechanism of High-Volume Fly Ash Self-Compacting Concrete. *Sustainability (Switzerland)*, 14(20). <https://doi.org/10.3390/su142013052>
- Marceau, M. L., Gajda, J., & VanGeem, M. G. (2002). Use of Fly Ash in Concrete: Normal and HighVolume Ranges. *PCA R&D Serial No. 2604*.
- Mehta, K. P., & Monteiro Paulo J.M. (2006). *Concrete Microstructur, Properties, and Materials* (3rd ed.). The McGraw-Hill Companies.
- Merida, A., & Kharchi, F. (2017). EFFECT OF NATURAL POZZOLAN ON CONCRETE DURABILITY. *2nd World Conference on Technology, Innovation and Entrepreneurship* , 5, 449–452. <https://doi.org/10.17261/Pressacademia.2017>
- Mulyono, T. (2005). *Teknologi Beton* (2nd ed.). C.V Andi Offset.
- Neville, A. M., & Brooks, J. J. (2006). *Concrete Technology* (2nd ed.). Pearson Education.
- Noaman, M. A., Karim, M. R., Islam, M. N., & Mia, M. S. (2022). Strength and Durability Parameters of Brick Aggregate Concrete Incorporating Rice Husk Ash as a Partial Replacement of Cement. *Advances in Materials Science and Engineering*, 2022. <https://doi.org/10.1155/2022/8541276>
- Pane, F. P., Tanudjaja, H., & Windah, R. S. (2015). Pengujian kuat tarik lentur beton dengan variasi kuat tekan beton. *Jurnal Sipil Statik*, 3(5), 313–321.
- Raviteja, D., & Lakshmi Kumar, M. M. (2017). *A STUDY ON MECHANICAL AND DURABILITY PROPERTIES OF CONCRETE USING FLY ASH AS APARTIAL REPLACEMENT OF CEMENT UNDER MAGNESIUM ACID ENVIRONMENT* (Vol. 3). [www.ijariie.com](http://www.ijariie.com)
- Samekto, W. (2001). *Teknologi Beton*. Kanisius.
- S-ay, M., MSh, S., & AKh, A. (2018). *Multicomponent Binders with Organic Mineral Additive Based on Volcanic Ash*.

- Setiawati, M. (2018). *FLY ASH SEBAGAI BAHAN PENGGANTI SEMEN PADA BETON* (Vol. 17).
- Setyowati, E. W., & Wibowo, A. (2020). *Teknologi Beton I* (1st ed.). Media Nusa Creative.
- Sidney Mindess, J. Young Francis, & David Darwin. (2002). *Concrete 2nd Edition* (2 nd). Prentice Hall.
- Suhana, N., & Mualifah, A. (2017). Pengaruh Rendamana Air Asam Sulfat Pasca Curing Terhadap Kuat Tekan Beton. *Gema Wiralodra*, 8(1), 42–51.
- Sujatmiko, B. (2019). *TEKNOLOGI BETON DAN BAHAN BANGUNAN*. Media Sahabat Cendekia.
- Suleiman, A. R. (2014). *Physical Sulphate Attack on Concrete*.  
<https://ir.lib.uwo.ca/etdhttps://ir.lib.uwo.ca/etd/2058>
- Thomas, M. (2007). *Optimizing the Use of Fly Ash in Concrete*.
- Tjokrodinuljo, K. (2007). *Teknologi Beton*. Biro Penerbit: Yogyakarta.
- Torres, S. M. (2004). *THE INFLUENCE OF CHLORIDE ON THE THAUMASITE FORM OF SULFATE ATTACK IN MORTARS CONTAINING CALCIUM CARBONATE*.
- Umboh, A. H., Sumajouw, M. D. J., & Windah, R. S. (2014). Pengaruh Pemanfaatan Abu Terbang (Fly Ash) Dari PLTU II Sulawesi Utara Sebagai Substitusi Parsial Semen Terhadap Kuat Tekan Beton. *Jurnal Sipil Statik*, 2(7), 352–358.
- Walker, R., & Pavia, S. (2011). Physical properties and reactivity of pozzolans, and their influence on the properties of lime-pozzolan pastes. *Materials and Structures/Materiaux et Constructions*, 44(6), 1139–1150.  
<https://doi.org/10.1617/s11527-010-9689-2>
- Wei, Y., Chai, J., Qin, Y., Li, Y., Xu, Z., & Ma, Y. (2021). Effect of fly ash on mechanical properties and microstructure of cellulose fiber-reinforced concrete under sulfate dry–wet cycle attack. *Construction and Building Materials*, 302.
- Widodo Kushartomo, F.X. Supartono, & Octavivia. (2014). Influence Of Sulfate Attack To Reactive Powder Concrete. *The International Conference on*

- Environmentally Friendly Civil Engineering Construction and Materials*, 177–183. <http://repository.untar.ac.id/id/eprint/182>
- Yu, C. W., & Bull, J. W. (2006). *Durability of materials and structures in building and civil engineering*. Dunbeath: Whittles Publishing.
- Yunaefi. (1996). *Petunjuk Praktikum Bahan Bangunan 1*.
- Zulkarnain, F. (2021). *TEKNOLOGI BETON* (I. Sulasmi & M. Arifin, Eds.). UMSU Press. <http://umsupress.umsu.ac.id>
- Zulkarnain, F., & Kamil, B. (2021). Perbandingan Kuat Tekan Beton Menggunakan Pasir Sungai sebagai Agregat Halus Dengan Variasi Bahan Tambah Sica Fume Pada Perendaman Air Laut. *Seminar Nasional Penelitian LPPM UMJ*, 1–10. <http://jurnal.umj.ac.id/index.php/semnaslit>