

DAFTAR PUSTAKA

- Abdullah, dkk, 2017, *Bata ringan Sebagai Bahan Panel Beton Pracetak untuk Menunjang Industri Kosntruksi*, Banda Aceh: Riset Pengembangan Ilmu Pengetahuan dan Teknologi, Universitas Syiah Kuala
- Abdullah, M. M. A., Hussin, K., Bnhussain, M., Ismail, K. N., Ibrahim, W. M. W., 2011, *Review Paper: Mechanism and Chemical Reaction of Fly Ash Geopolymer Cemen*, International Journal of Pure and Applied Sciences and Technology, Vol. 6, Hal. 35-44
- Adam, A. A. 2009. “*Strength and durability properties of alkali activated slag and fly ash- based geopolymer concrete*”. *PhD Thesis of Civil, Environmental and Chemical Engineering. Melbourne: RMIT University.*
- Amri, Sjafei, 2005, *Teknologi Beton A-Z*, UI-Press.
- Anggarini, Ufafa, dkk, 2017, *A comparative study of the utilization of synthetic foaming agent and aluminum powder as pore-forming agents in lightweight geopolymer synthesis*, Gresik: Universitas Internasional Semen Indonesia.
- Antoni dan Paul Nugraha., 2007. *Teknologi Beton*. Penerbit C.V Andi Offset, Yogyakarta.
- ASTM C 618-93. “Standard Test Method for Fly Ash and Row or calcined Natural Pozzolan for Use as a mineral Admixture in Portlan Cement Concrete,” American S”ociety for Testing of Concrete’s,1991
- Badan Standarisasi Nasional, 1989. *SK SNI S-04-1989-F: Spesifikasi Bahan Bangunan Bagian A, Bahan Bangunan Bukan Logam*. Jakarta: BSN
- Badan Standarisasi Nasional, 2002. *SNI 02-6820-2002: Spesifikasi Agregat Halus*
- Callister Jr, W.D. 2003. “*Material Science and Engineering: An Introduction*”. New York: John Wiley&Sons.
- Caturo, Michelina dkk. 2015. *Geopolymer/PEG Hybrid Materials Synthesis and Investigation of the Polymer Influence on Microstructure and Mechanical Behavior*. Itali: Department of Industrial and Information Engineering, Second University of Naples

- Cembureau, 1999, *Best Available Techniques for The Cement Industry*, European Cement Association
- Chandra SBL. 2002. *Lightweight aggregate concrete: science, technology and application*. Norwich, New York, USA: William Andrew Publishing.
- Chanh, N.V., Trung, B.D., Tuan, D.V. (2008) "Recent research geopolymer concrete" The 3rd ACF International Conference – ACF/VCA.
- Davidovits, J. 1991. *Geopolymer : Inorganic Polymeric New Materials*. France : Geopolymer Institute
- Diaz, E. I., Allouche, E. N., & Eklund, S. (2010). *Factors Affecting the Suitability of Fly Ash as Source Material for Geopolymers*. *Fuel*, 89(5), 992–996. doi:10.1016/j.fuel.2009.09.012
- Dobrowolski. A. and Joseph. 1998. *Concrete Construction Hand Book*, The McGraw- Hill Companies, Inc., New York.
- Ekaputri, J.J dan Triwulan (2011). *Beton Geopolimer Berbahan Dasar Fly Ash, Trass dan Lumpur Sidoarjo*. *Journal of Civil Engineering* vol.31 no.2. Institut Teknologi Sepuluh Nopember, Surabaya
- Guo, X.; Shi, H.; Dick, W.A. 2010. *Compressive strength and microstructural characteristic of class c fly ash geopolymer*. *Cem. Concr. Compos.* Vol. 32, pp. 142–147.
- Hadi, S. 2000. "Pengaruh Ukuran Butir dan Komposisi Abu Terbang PLTU sebagai Pengisi dan Pozolan." Surabaya.
- Hamidi, Rashidah Mohamed, Man, Zakaria, Azizli, Khairun Azizi. 2016. *Concentration of NaOH and the effect of the properties of fly ash based geopolymer*, *Procedia Engineering*, Vol. 148, pp. 189-193
- Hardjito, D., & Rangan, B. V. (2005). *Development and Properties of Low-Calcium Fly Ash-Based Geopolymer Concrete*. *Research Report GC*, 94.
- Hardjito, Djwantoro, 2001, *Abu Terbang Solusi Pencemaran Semen*, ReasearcgGate : Petra Christian University
- Himawan. A., & Darma. D.S., "Penelitian Awal Mengenai Self Compacting Concrete", 2000. Juerusan Teknik Sipil Universitas Kristen Petra Surabaya

- Hunggurami, E. Dkk. (2014), “Studi Eksperimental Kuat Tekan dan Serapan Air Bata Ringan Cellular Lightweight Concrete dengan Tanah Putih sebagai Agregat”, *Jurnal Teknik Sipil*, Vol. 03, No. 02.
- Ibrahim, W.M.W. Dkk. (2015), “Development of Fly Ash-Based Geopolymer Lightweight Bricks Using Foaming Agent - A Review”, *Journal Key Engineering Materials*, Vol. 660, Hal. 09-16.
- Imran, Iswandi, 2006, “Catatan Kuliah Pengenalan Rekayasa & Bahan Konstruksi”, Departemen Teknik Sipil ITB.
- Jamkar, S.S, Ghugal, Y.M, & Patankar, S.V. (2013). *Effect of Fineness of Fly Ash on Flow and Compressive Strength of Geopolymer Concrete. India*, (November 2015).
- Khan, M. Irfan, dkk. 2016. *A Short Review of the Infra Red Spectroscopic Studies of Geopolymers*. Switzerland : Trans Tech Publication ISSN: 1662-8985, Vol. 1133, pp 231-235.
- Khifdhillah, M.I. (2017), *Pemanfaatan Limbah Phosphogypsum PT Petrokimia Gresik sebagai Bahan Pembuatan Bata ringan N-AAC (Non-Autoclaved Aerated Concrete)*, Skripsi S.T., Universitas Internasional Semen Indonesai, Gresik.
- Kitti, Sura. 2010. *Kimia 2*. Jakarta: Graha Cipta Karya
- Klug, H.P. dan Alexander. L.E. 1974. *X-Ray Diffractometry Procedures for Polycrystalline and Amorphous Materials*. NewYork: John Willeys and Sons Inc.
- Kristanti, N., Tansajaya, A. (2008). *Studi Pembuatan Cellular Lightweight Concrete (CLC) dengan Menggunakan Beberapa Foaming Agent*. Tugas Akhir No. 11011592/SIP/2008. Unpublished Undergraduate Thesis. Universitas Kristen Petra. Surabaya
- Lloyd, N. A, & Rangan, B. V. (2010). *Geopolymer Concrete with Fly Ash. Second International Conference on Sustainable Construction Materials and Technologies, 3*, 1493–1504.

- Malhotra VM. 2002. *Introduction: sustainable development and concrete technology*. *Concr Int*;24:22
- Manuahe Riger, 2014. *Kuat tekan beton geopolimer berbahan dasar abu terbang (fly ash)*. Skripsi Program S1 Teknik Sipil Universitas Sam Ratulangi, Manado.
- Manuahe, R., Sumajow, M. D., & Windah, R. S., 2014, *Kuat Tekan bata Geopolimer Berbahan Dasar Abu Terbang (Fly Ash)*.
- Masi, G. Dkk. (2014), "A Comparison Between Different Foaming Methods for the Synthesis of Light Weight Geopolymers", *Journal Ceramic International*.
- Melati, S.M. 2017, *Pemanfaatan Limbah Pasir Silika Hasil Sandblasting PT Swadaya Graha sebagai Bahan Alternatif Pembuatan Bata ringan*, Skripsi S.T., Universitas Internasional Semen Indonesia, Gresik.
- Muharom & Siswadi, 2015. *Desain Eksperimen Taguchi Untuk Meningkatkan Kualitas Batubata Berbahan Baku Tanah Liat*. *Jemis*, III, pp.43-46.
- Murali, B., Ramnath, B.V., and Chandramohan, D., 2017. *Crash Test Analysis on Natural Fiber Composite Materials for Head Gear*.
- Murdock, L.J dan Brook, K.M., 1999, *Bahan dan Praktek Beton*, Edisi keempat, Erlangga, Jakarta
- Nadim Hassoum M., 2002, *Structural concrete, theory and design. Upper Sandle River*, New Jersey: Prentice-Hall Inc.
- Naik., & Singh, S. S. (1993). *Fly Ash Generation and Utilization - An Overview. Recent Trend in Fly Ash Utilization*, (June).
- Narayan, N. dan Ramamurthy, K. (2000), "Structure and Properties of Aerated Concrete: A Review", *Jurnal Cement & Composite*, Vol. 22, Hal. 321-329.
- Nematollahi, behzad; Sanjayan, Jay. 2014. *Effect of Superplasticizers on Workability*
- Neville, A.M., and Brook, J.J., 1993, *Concrete Technology*, Longman, London.
- Nurlina, S. 2008. *Teknologi Bahan*. Malang: BARGIE Media.

of Fly Ash Based Geopolymer. Australia: Faculty of Engineering and Industrial Sciences, Swinburne University of Technology

Olivia, M. 2011. “Durability related properties of low calcium fly ash based geopolymer concrete”. *Tesis Sarjana School of Civil and Mechanical Engineering Department of Civil Engineering. Perth : Curtin University of Technology.*

Pratama P, W.A. Dkk., 2015, “Perbandingan Kuat Tekan dan Tegangan-Regangan Bata Bata ringan dengan Penambahan Mineral Alami Zeolit Alam Tertahan Saringan No.80 (0,180mm) dan Tertahan Saringan No.200 (0,075mm)”, *Jurnal Rekayasa Sipil*, Vol. 09, No. 03.

Putra, A.A.F. (2015), *Karakteristik Bata ringan dengan Bahan Pengisi Styrofoam*, Skripsi S.T., Universitas Hassanuddin, Makassar.

Retnowati, Priscilla. 2007. Kimia. Jakarta: Erlangga.

Sanjayan, Jay G, Nazari, Ali, Chen, Lei, Nguyen, 2015. “Physical and mechanical properties of lightweight aerated geopolymer”. *Construction and Building Materials* 79 (2015) 236–244

Satyarno, I., 2004, Penggunaan Semen Putih untuk Beton Styrofoam Ringan (Batafoam), Laboratorium Bahan Konstruksi Jurusan Teknik Sipil, Fakultas Teknik, Universitas Gadjah Mada, Yogyakarta.

Sebayang, Surya. 2000. Diktat Bahan Bangunan Volume I-Teknologi Beton. Jurusan Teknik Sipil Fakultas Teknik Universitas Lampung. Bandar Lampung.

Skoog, Douglas A. dan Donald M. West. 1980. *Principal Instrumental Analysis 2nd. Edition*. Philadelphia, Saunders College

SNI 03-2847-2002. Perhitungan Struktur Beton untuk Bangunan Gedung. Badan Standarisasi Nasional.

SNI 06-6867-2002. Persyaratan Mutu Abu Layang. Badan Standarisasi Nasional.

Sonora, 2003, ”Light Concrete LLC, High-Strength Structural Lightweight Concrete”, first ed., California

- Sumajouw, M. D., Dapar, S. O., & Windah, R. S. (2014). Pengujian Kuat Tekan Beton Mutu Tinggi.
- Sumajouw, M.D.J., and Rangan, B.V. 2006. *Low - Calcium Fly Ash – Based Geopolimer Concrete: Reinforced Beams And Columns*, Research Report GC3 Faculty of Engineering Curtin University Of Technology Perth, Australia.
- Suseno, Hendro, 2010. *Bahan Bangunan*. Malang: BARGIE Media.
- Swanepoel, J.C., Strydom, C.A. 2002. *Utilisation of fly ash in a geopolimeric material*, Application Geochemistry 17, page 1143-1148
- Thermo Nicolet Corporation. 2001. Introduction to Fourier Transform Infrared Spectroscopy. http://www.mmrc.caltech.edu/FTIR/FT_IRintro.pdf. (Diakses 1 November 2019).
- Tjokrodimuljo, K., 2007, *Teknologi Beton*, Nafiri: Yogyakarta.
Untuk Pekerjaan Adukan dan Plesteran dengan Bahan Dasar Semen. Jakarta: BSN
- Van Jaarsveld, J.G.S. dan Van Deventer, J.S.J. 1996. *The Potential Use of Geopolymeric Materials to Immobilize Toxic Metals : Part 1 Theory and Applications*. Minerals Engineering, Vol.10, No.7, Hal. 659-669.
- Wahjudi, Didik, 2014, *Rekayasa Mutu Besi bata dengan Metode Taguchi*, Universitas Kristen Petra : Jurnal Teknik Mesik Vol. 2 No. 2.
- Wancik, Akhmad, dkk, 2008, Batako styrofoam komposit mortar semen, Jurnal Forum Teknik Sipil No. XVIII/2-Mei 2008
- Wijaya, S. W. (2015). *Faktor yang Mempengaruhi Setting Time Geopolimer Berbahan Dasar Fly Ash*. Skripsi No: 01000202/MTS/2015. Universitas Kristen Petra, Surabaya.
- Wuryandari, T. Dkk. (2009), *Metode Taguchi untuk Optimalisasi Produk pada Rancangan Faktorial*, Jurnal Media Statistika, Vol. 02, No. 02, Hal. 81-92.
- Wuryandari, T. Dkk. 2009, “Metode Taguchi untuk Optimalisasi Produk pada Rancangan Faktorial”, *Jurnal Media Statistika*, Vol. 02, No. 02, Hal. 81-92.

Xu, H. Dan Van Deventer, J.S.J. 2000. *The Geopolymerisation of Alumino-silicate Minerals*. International Journal of Minerals Processing, Vol. 59, Hal. 247-266

Yunsheng, Z., Wei, S., Qianli, C. and Lin, C., 2007. "Synthesis and heavy metal immobilization behaviors of slag based geopolymer. Journal of hazardous materials", 143(1-2), pp.206-213.

Zayendra, S. Dkk. 2016, "Penerapan Metode Taguchi untuk Optimalisasi Hasil Produksi Roti di Usaha Roti Meyza Bakery, Padang Sumatera Barat", *Jurnal Matematika UNAND*, Vol. 08, No. 03, Hal. 122-130.

Zhang, Z. dan Wang, H. 2016, "The Pore Characteristics of Geopolymer Foam Concrete and Their Impact on the Compressive Strength and Modulus", *Journal Frontiers in Materials*, Vol. 03, No. 38.

