DAFTAR PUSTAKA

Aboutaleb, D. *et al.* (2017) 'Use of refractory bricks as sand replacement in self-compacting mortar', *Cogent Engineering*, 4(1). Available at: https://doi.org/10.1080/23311916.2017.1360235.

Amorim, J. *et al.* (2014) 'Compressive stress – strain behavior of steel fiber reinforced-recycled aggregate concrete', *Cement and Concrete Composites*, 46, pp. 65–72. Available at: https://doi.org/10.1016/j.cemconcomp.2013.11.006.

ASTM designation: C 33 03 (2003) *Standard specification for concrete aggregates*. United States: American Society for Testing and Materials International. Available at: www.astm.org.

ASTM Designation: C469/C469M-14 (2014) *Standard test method for static modulus of elasticity and poisson's ratio of concrete in compression*. United States: American Society for Testing and Materials International. Available at: www.astm.org.

Baradaran-Nasiri, A. and Nematzadeh, M. (2017) 'The effect of elevated temperatures on the mechanical properties of concrete with fine recycled refractory brick aggregate and aluminate cement', *Construction and Building Materials*, 147, pp. 865–875. Available at: https://doi.org/10.1016/j.conbuildmat.2017.04.138.

Cachim, P.B. (2009) 'Mechanical properties of brick aggregate concrete', *Construction and Building Materials*, 23(3), pp. 1292–1297. Available at: https://doi.org/10.1016/j.conbuildmat.2008.07.023.

Caronge, M.A. *et al.* (2017) 'Effect of water curing duration on strength behaviour of portland composite cement (PCC) mortar', in *IOP Conference Series: Materials Science and Engineering*. Institute of Physics Publishing. Available at: https://doi.org/10.1088/1757-899X/271/1/012018.

Caronge, M.A. *et al.* (2022) 'Feasibility study on the use of processed waste tea ash as cement replacement for sustainable concrete production', *Journal of Building Engineering*, 52. Available at: https://doi.org/10.1016/j.jobe.2022.104458.

Carreira, D.J. and Kuang-Han Chu (1985) 'Stress-strain relatonship for reinforced concrete in compression', *ACI Structural Journal*, (November-December), pp. 797–804.

Debieb, F. and Kenai, S. (2008) 'The use of coarse and fine crushed bricks as aggregate in concrete', *Construction and Building Materials*, 22(5), pp. 886–893. Available at: https://doi.org/10.1016/j.conbuildmat.2006.12.013.

Fang, H., Smith, J.D. and Peaslee, K.D. (1999) 'Study of spent refractory waste recycling from metal manufacturers in Missouri', *Resources, Conservation and Recycling*, 25(2), pp. 111–124. Available at:

https://doi.org/10.1016/S0921-3449(98)00059-7.

Ghosh, S. and Samanta, A.K. (2023) 'Utilization of recycled refractory brick as fine aggregate on various properties of sustainable concrete', *Materials Today: Proceedings* [Preprint]. Available at: https://doi.org/10.1016/j.matpr.2023.03.712.

González, J.S. *et al.* (2017) 'Influence of recycled brick aggregates on properties of structural concrete for manufacturing precast prestressed beams', *Construction and Building Materials*, 149, pp. 507–514. Available at: https://doi.org/10.1016/j.conbuildmat.2017.05.147.

Hachemi, S., Khattab, M. and Benzetta, H. (2022) 'The effects of recycled brick and water/cement ratios on the physical and mechanical performance of recycled aggregates concrete', *Innovative Infrastructure Solutions*, 7(4). Available at: https://doi.org/10.1007/s41062-022-00868-y.

Horckmans, L. *et al.* (2019) 'Recycling of refractory bricks used in basic steelmaking: A review', *Resources, Conservation and Recycling*. Elsevier B.V., pp. 297–304. Available at: https://doi.org/10.1016/j.resconrec.2018.09.025.

Irmawaty, R. *et al.* (2023) 'Compressive strength and corrosion behavior of steel bars embedded in concrete produced with ferronickel slag aggregate and fly ash: an experimental study', *Innovative Infrastructure Solutions*, 8(7). Available at: https://doi.org/10.1007/s41062-023-01162-1.

Ji, Y. and Wang, D. (2023) 'Materials Constitutive model of waste brick concrete based on Weibull strength theory', *Case Studies in Construction Materials*, 18(August 2022), p. e01738. Available at: https://doi.org/10.1016/j.cscm.2022.e01738.

Kaarthik, M. and Maruthachalam, D. (2020) 'A sustainable approach of characteristic strength of concrete using recycled fine aggregate', *Materials Today: Proceedings*, 45, pp. 6377–6380. Available at: https://doi.org/10.1016/j.matpr.2020.11.058.

Kavas, T., Karasu, B. and Arslan, O. (2006) 'Utilization of refractory brick wastes in concrete production as aggregates', *2006 TMS Fall Extraction and Processing Division: Sohn International Symposium*, 5(January 2006), pp. 479–483.

Khattab, M. *et al.* (2021) 'The use of recycled aggregate from waste refractory brick for the future of sustainable concrete', *International Congress on the Phenomenological Aspects of Civil Engineering* [Preprint].

Khattab, M. and Hachemi, S. (2020) 'Performance of concrete made with recycled coarse aggregate from waste refractory brick', *Algerian Journal of Engineering Architecture and Urbanism*, 4.

Khattab, M., Hachemi, S. and Al Ajlouni, M.F. (2021) 'Evaluating the physical

and mechanical properties of concrete prepared with recycled refractory brick aggregates after elevated temperatures' exposure', *Construction and Building Materials*, 311. Available at: https://doi.org/10.1016/j.conbuildmat.2021.125351.

Khattab, Mohammed, Hachemi, S. and Al Ajlouni, M.F. (2021) 'Recycled refractory brick as aggregate for eco-friendly concrete production', *Journal of Advanced Sciences and Engineering Technologies*, 4(1), pp. 32–49. Available at: https://doi.org/10.32441/jaset.04.01.04.

Li, W. *et al.* (2012) 'Failure processes of modeled recycled aggregate concrete under uniaxial compression', *Cement and Concrete Composites*, 34(10), pp. 1149–1158. Available at: https://doi.org/10.1016/j.cemconcomp.2012.06.017.

Li, X. (2008) 'Recycling and reuse of waste concrete in China Part I . Material behaviour of recycled aggregate concrete', *Resources , Conservation and Recycling*, 53, pp. 36–44. Available at: https://doi.org/10.1016/j.resconrec.2008.09.006.

Liu, X. *et al.* (2021) 'Effect of brick waste content on mechanical properties of mixed recycled concrete', *Construction and Building Materials*, 292. Available at: https://doi.org/10.1016/j.conbuildmat.2021.123320.

Mansyur *et al.* (2022) 'Early age of volume weight, indirect tensile strength and tensile elastic modulus of foam concrete containing blended cement', in *IOP Conference Series: Earth and Environmental Science*. Institute of Physics Publishing. Available at: https://doi.org/10.1088/1755-1315/1117/1/012025.

Meddah, M.S., Zitouni, S. and Belâabes, S. (2010) 'Effect of content and particle size distribution of coarse aggregate on the compressive strength of concrete', *Construction and Building Materials*, 24(4), pp. 505–512. Available at: https://doi.org/10.1016/j.conbuildmat.2009.10.009.

Mohammed, T.U. *et al.* (2015) 'Recycling of brick aggregate concrete as coarse aggregate', *Journal of Materials in Civil Engineering*, 27(7). Available at: https://doi.org/10.1061/(asce)mt.1943-5533.0001043.

Munir, M.J. *et al.* (2020) 'Stress strain performance of steel spiral confined recycled aggregate concrete', *Cement and Concrete Composites*, 108. Available at: https://doi.org/10.1016/j.cemconcomp.2020.103535.

Nawy, E.G. (1998) *Beton bertulang: suatu pendekatan mendasar*. Bandung: PT. Refika Aditama.

Nematzadeh, M. and Baradaran-Nasiri, A. (2018) 'Residual properties of concrete containing recycled refractory brick aggregate at elevated temperatures', *Journal of Materials in Civil Engineering*, 30(1). Available at: https://doi.org/10.1061/(asce)mt.1943-5533.0002125.

Nepomuceno, M.C.S., Isidoro, R.A.S. and Catarino, J.P.G. (2018) 'Mechanical

performance evaluation of concrete made with recycled ceramic coarse aggregates from industrial brick waste', *Construction and Building Materials*, 165, pp. 284–294. Available at: https://doi.org/10.1016/j.conbuildmat.2018.01.052.

Popovics, S. (1973) 'A numerical approach to the complete stress-strain curve of concrete', *Cement and Concrete Research*, 3(5), pp. 583–599. Available at: https://doi.org/https://doi.org/10.1016/0008-8846(73)90096-3.

Qi, A. *et al.* (2020) 'Mechanical properties of the concrete containing ferronickel slag and blast furnace slag powder', *Construction and Building Materials*, 231. Available at: https://doi.org/10.1016/j.conbuildmat.2019.117120.

Saidi, M. *et al.* (2015) 'Improved behaviour of mortars at a high temperature by using refractory brick wastes', *International Journal of Microstructure and Materials Properties*, 10(5–6), pp. 366–380. Available at: https://doi.org/10.1504/IJMMP.2015.074992.

Sheen, Y.N. *et al.* (2013) 'Assessment on the engineering properties of ready-mixed concrete using recycled aggregates', *Construction and Building Materials*, 45, pp. 298–305. Available at: https://doi.org/10.1016/j.conbuildmat.2013.03.072.

SNI 03-1968 (1990) *Metode pengujian tentang analisis saringan agregat halus dan kasar*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 03-2834 (2000) *Tata cara pembuatan rencana campuran beton normal*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1969 (2016a) *Metode uji berat jenis dan penyerapan air agregat kasar*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1969 (2016b) *Metode uji berat jenis dan penyerapan air agregat kasar*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1970 (2008) *Cara uji berat jenis dan penyerapan air agregat halus*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1971 (2011) *Cara uji kadar air total agregat dengan pengeringan*. jA: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1972 (2008) *Cara uji slump beton*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 1974 (2011) *Cara uji kuat tekan beton dengan benda uji silinder*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at:

www.bsn.go.id.

SNI 2049 (2015) *Semen portland*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 2417 (2008) *Cara uji keausan agregat dengan mesin abrasi Los Angeles*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 2847 (2019) *Persyaratan beton struktural untuk bangunan gedung dan penjelasan*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

SNI 7064 (2014) *Semen portland komposit*. Jakarta: Badan Standarisasi Nasional Republik Indonesia. Available at: www.bsn.go.id.

Tutluoğlu, L., Öge, İ.F. and Karpuz, C. (2015) 'Relationship between pre-failure and post-failure mechanical properties of rock material of different origin', *Rock Mechanics and Rock Engineering*, 48(1), pp. 121–141. Available at: https://doi.org/10.1007/s00603-014-0549-1.

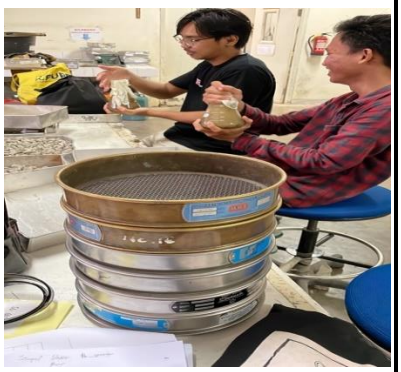
Wang, C.-K. and Salmon, C.G. (1993) *Reinforced Concrete Design, Fourth Edition*. University of Wisconsin - Madison: Harper and Row.

Yan, P. *et al.* (2022) 'Uniaxial compressive stress–strain relationship of mixed recycled aggregate concrete', *Construction and Building Materials*, 350(May), p. 128663. Available at: https://doi.org/10.1016/j.conbuildmat.2022.128663.

Zeghad, M. *et al.* (2017) 'Reuse of refractory brick wastes (RBW) as a supplementary cementitious material in a concrete', *Periodica Polytechnica Civil Engineering*, 61(1), pp. 75–80. Available at: https://doi.org/10.3311/PPci.8194.

LAMPIRAN

	Universitas Hasanuddin	**Nama : Ummulchair Jureje**
	Program Studi Magister Teknik Sipil	**NIM : D012221019**
LAMPIRAN		**Tgl Percobaan : September 2023**

Persiapan material	   
Pengujian karakteristik material	     

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Pengujian karakteristik material	  
Penimbangan material yang akan digunakan (Air, semen, agregat kasar (batu pecah dan limbah batu bata tahan api), agregat halus)	
Pencampuran material menggunakan *mixer* berkapasitas 75 liter. 1. Pertama, agregat limbah batu bata tahan api, batu pecah, pasir dan semen dimasukkan ke dalam mixer dan dicampur selama 60 detik.	

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2. Selanjutnya, air ditambahkan secara bertahap ke dalam mixer, dan pencampuran dilanjutkan selama 120 detik. 3. Kemudian, campuran beton diaduk secara manual agar bahan – bahan yang menempel pada bagian bawah dan dinding mixer tercampur rata. 4. Pencampuran menggunakan mixer dilanjutkan selama 60 detik hingga diperoleh kombinasi campuran beton segar yang merata.	 
Pengujian slump beton dengan target nilai desain slump yaitu 20±2 cm	
Memasukkan campuran ke ke dalam cetakan silinder besi berdiameter 100 mm dan tinggi 200 mm, lalu dipadatkan selama 60 detik menggunakan mesin vibrator.	 

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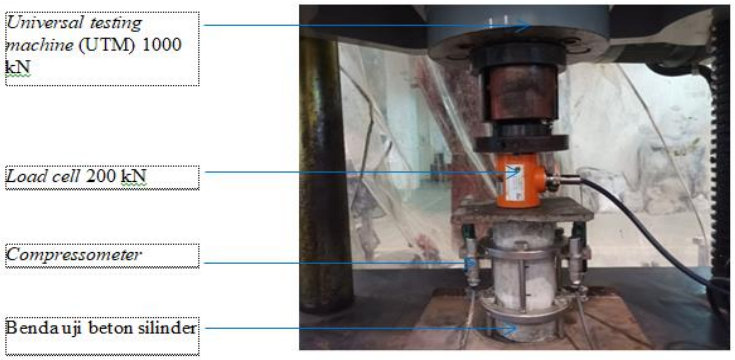
Selanjutnya, campuran beton didiamkan selama 24 jam sebelum cetakan dibuka.	
Proses perawatan (*curing*) benda uji beton semua variasi di *curing* menggunakan air pada suhu 20^{o}C selama 7 dan 28 hari.	
Pengujian kuat tekan beton	
Pengujian modulus elastisitas	

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Hasil beton yang telah diuji