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# DAFTAR PUSTAKA

Asjodi, A.H., Saeidi, S., Dolatshahi, K.M., dan Burton, H.V., 2024. Quantifying hybrid failure modes of unreinforced masonry walls through experimental data analysis. *Journal of Structural Engineering*, 150(11), 04024155. https://doi.org/10.1061/JSENDH.STENG-13028

Aster Co., Ltd., n.d. *Aster Power Coating®: Protecting Lives from Earthquakes*. Aster Co., Ltd., Shizuoka. https://www.dis-aster.com, diakses 7 Juli 2026.

ASTM International, 2010. *ASTM E519/E519M-10 Standard Test Method for Diagonal Tension (Shear) in Masonry Assemblages*. ASTM International, West Conshohocken. https://doi.org/10.1520/E0519_E0519M-10

Badan Standardisasi Nasional, 2014. *SNI 6882:2014 Spesifikasi Mortar untuk Pekerjaan Unit Pasangan*. Badan Standardisasi Nasional, Jakarta.

Badan Standardisasi Nasional, 2021. *SNI 2156:2021 Spesifikasi Beton Aerasi Autoklaf*. Badan Standardisasi Nasional, Jakarta.

Bhat, Z.M., Singh, Y., dan Agarwal, P., 2023. Characterization of mechanical behavior of different types of masonry with a detailed investigation of full-field strain using digital image correlation. *Construction and Building Materials*, 407, 133502. https://doi.org/10.1016/j.conbuildmat.2023.133502

Binici, B., Canbay, E., Aldemir, A., Demirel, I.O., Uzgan, U., Eryurtlu, Z., Bulbul, K., dan Yakut, A., 2019. Seismic behavior and improvement of autoclaved aerated concrete infill walls. *Engineering Structures*, 193, 68–81. https://doi.org/10.1016/j.engstruct.2019.05.032

Boen, T., 2006. *Yogya Earthquake 27 May 2006: Structural Damage Report*. Earthquake Engineering Research Institute, Oakland. https://www.eeri.org/lfe/pdf/indonesia_yogya_structural_damage.pdf

Bustos-García, A., Moreno-Fernández, E., Zavalis, R., dan Valivonis, J., 2019. Diagonal compression tests on masonry wallets coated with mortars reinforced with glass fibers. *Materials and Structures*, 52, 60. https://doi.org/10.1617/s11527-019-1360-y

Del Zoppo, M., Di Ludovico, M., Balsamo, A., dan Prota, A., 2020. Diagonal compression testing of masonry panels with irregular texture strengthened with inorganic composites. *Materials and Structures*, 53, 107. https://doi.org/10.1617/s11527-020-01539-z

European Committee for Standardization, 2002. *EN 1052-3 Methods of Test for Masonry - Part 3: Determination of Initial Shear Strength*. European Committee for Standardization, Brussels.

Grzyb, K., dan Jasiński, R., 2022. Research on the behavior of stiffening walls in single-storey buildings made of autoclaved aerated concrete (AAC) masonry units. *Materials*, 15, 7404. https://doi.org/10.3390/ma15207404

Gupta, A., Meena, G.K., dan Singhal, V., 2023. Strengthening of autoclaved aerated concrete (AAC) masonry wallettes with fabric reinforced cementitious matrix for in-plane shear and out-of-plane loads. *Structures*, 51, 1869–1880. https://doi.org/10.1016/j.istruc.2023.03.099

Htet, P.M., Ejaz, A., Gadagamma, C.K., Hussain, Q., Saingam, P., Khaliq, W., Sua-iam, G., Chatveera, B., dan Suparp, S., 2025. Seismic strengthening of heritage masonry buildings

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using fiber-reinforced paint: Numerical validation and shake table testing for enhanced energy dissipation and safety. *Journal of Building Engineering*, 101, 111824. https://doi.org/10.1016/j.jobe.2025.111824

Info Gempa Dunia, 2026. Kerusakan dan keruntuhan lokal dinding pasangan bangunan sederhana akibat gempa. *Instagram*, https://www.instagram.com/p/DW5WJnfkTVR/?img_index=3, diakses 7 Juli 2026.

Japanese Standards Association, 2021. *JIS A 6909:2021 Coating Materials for Textured Finishes of Buildings*. Japanese Standards Association, Tokyo.

Jasiński, R., dan Drobiec, Ł., 2016. Comparison research of bed joints construction and bed joints reinforcement on shear parameters of AAC masonry walls. *Journal of Civil Engineering and Architecture*, 10, 1329–1343. https://doi.org/10.17265/1934-7359/2016.12.004

Jasiński, R., dan Gąsiorowski, T., 2023. Comparative studies of the confined effect of shear masonry walls made of autoclaved aerated concrete masonry units. *Materials*, 16, 5885. https://doi.org/10.3390/ma16175885

Karnaji, K., Susanti, E., Ariadi, S., dan Saud, M., 2024. Social impacts and post-disaster management in disaster-prone areas of East Java, Indonesia. *Jàmbá: Journal of Disaster Risk Studies*, 16(1), a1747. https://doi.org/10.4102/jamba.v16i1.1747

Kałuża, M., 2023. Efficiency evaluation of a commercial superficial strengthening system applied to AAC-block walls under diagonal compression. *Cement Wapno Beton*, 28(3), 134–145. https://doi.org/10.32047/CWB.2023.28.3.1

Kristiawan, S.A., Safarizki, H.A., Purwanto, E., Sangadji, S., Trisnawan, A.D., dan Nugroho, T.S., 2024. Damage state of non-engineered residential buildings owing to earthquakes: A case study in Pacitan Regency, Indonesia. *Civil and Environmental Engineering*, 20(1), 426–439. https://doi.org/10.2478/cee-2024-0033

Li, T., Deng, M., Qiu, Z., Wang, X., dan Yang, S., 2025. In-plane shear behavior of masonry walls strengthened with HDC repointing in bed joints and HDC layer under diagonal compression loads. *Structures*, 77, 109088. https://doi.org/10.1016/j.istruc.2025.109088

Lucchini, S.S., Facconi, L., Minelli, F., dan Plizzari, G., 2020. Retrofitting unreinforced masonry by steel fiber reinforced mortar coating: uniaxial and diagonal compression tests. *Materials and Structures*, 53, 144. https://doi.org/10.1617/s11527-020-01574-w

Mann, W., dan Müller, H., 1982. Failure of shear-stressed masonry - an enlarged theory, tests and application to shear walls. *Proceedings British Ceramic Society*, 30, 223–235.

Meilano, I., Salman, R., Susilo, S., Shiddiqi, H.A., Supendi, P., Lythgoe, K., Tay, C., Bradley, K., Rahmadani, S., Kristyawan, S., dan Yun, S.-H., 2023. The 2021 MW 6.2 Mamuju, West Sulawesi, Indonesia earthquake: partial rupture of the Makassar Strait thrust. *Geophysical Journal International*, 233(3), 1694–1707. https://doi.org/10.1093/gji/ggac512

Miccoli, L., Ferretti, D., Michelini, E., dan Loderer, F., 2023. Determination of the initial shear strength of AAC masonry with and without pre-compression according to EN 1052-3. *ce/papers*, 6, 191–197. https://doi.org/10.1002/cepa.2220

Michelini, E., Ferretti, D., Miccoli, L., dan Parisi, F., 2023a. Autoclaved aerated concrete masonry for energy efficient buildings: State of the art and future developments.

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*Construction and Building Materials*, 402, 132996. https://doi.org/10.1016/j.conbuildmat.2023.132996

Michelini, E., Ferretti, D., dan Pizzati, M., 2023b. The influence of density on the fracture energy of AAC: From experimental investigation to the calibration of a cohesive law. *Construction and Building Materials*, 400, 132547. https://doi.org/10.1016/j.conbuildmat.2023.132547

Multazam, Z., Yamamoto, K., Timsina, K., Gadagamma, C.K., dan Meguro, K., 2024. Shaking table tests of a one-quarter scale model of concrete hollow block masonry houses retrofitted with fiber-reinforced paint. *Scientific Reports*, 14, 8041. https://doi.org/10.1038/s41598-024-58365-4

Petry, S., dan Beyer, K., 2014. Influence of boundary conditions and size effect on the drift capacity of URM walls. *Engineering Structures*, 65, 76–88. https://doi.org/10.1016/j.engstruct.2014.04.048

PT Sinar Indogreen Kencana, 2019a. *Safety Data Sheet Autoclaved Aerated Concrete (AAC) Block*. PT Sinar Indogreen Kencana, Sidoarjo.

PT Sinar Indogreen Kencana, 2019b. *Safety Data Sheet Mortar GE-100 Premium Thin Bed*. PT Sinar Indogreen Kencana, Sidoarjo.

PT Sinar Indogreen Kencana, 2019c. *Safety Data Sheet Mortar GE-300 Skim Coat*. PT Sinar Indogreen Kencana, Sidoarjo.

PT Sinar Indogreen Kencana, 2023. *Lembar Data Keselamatan Mortar GE 200 Plester Premium*. PT Sinar Indogreen Kencana, Sidoarjo.

Sabahoğlu, N., Erdem, M.M., Emsen, E., dan Bikçe, M., 2025. Importance of specimen size effect for AAC infill walls in ASTM E519 diagonal shear test. *Structures*, 80, 109902. https://doi.org/10.1016/j.istruc.2025.109902

Segura, J., Pelà, L., Saloustros, S., dan Roca, P., 2021. Experimental and numerical insights on the diagonal compression test for the shear characterisation of masonry. *Construction and Building Materials*, 287, 122964. https://doi.org/10.1016/j.conbuildmat.2021.122964

Supendi, P., Winder, T., Rawlinson, N., Bacon, C.A., Palgunadi, K.H., Simanjuntak, A., Kurniawan, A., Widiyantoro, S., Nugraha, A.D., Shiddiqi, H.A., Ardianto, Daryono, Adi, S.P., Karnawati, D., Priyobudi, Marliyani, G.I., Imran, I., dan Jatnika, J., 2023. A conjugate fault revealed by the destructive Mw 5.6 (November 21, 2022) Cianjur earthquake, West Java, Indonesia. *Journal of Asian Earth Sciences*, 257, 105830. https://doi.org/10.1016/j.jseaes.2023.105830

Tomaževič, M., 1999. *Earthquake-Resistant Design of Masonry Buildings*. Imperial College Press, London.

Weber, R., Cummins, P., dan Edwards, M., 2024. Fragility of Indonesian houses: scenario damage analysis of the 2006 Yogyakarta and 2009 Padang earthquakes. *Bulletin of Earthquake Engineering*, 22, 4705–4743. https://doi.org/10.1007/s10518-024-01930-z

Wen, T.-H., Yuen, T.Y.P., dan Zhou, X., 2026. Enhancing out-of-plane seismic resistance of masonry walls with fiber-reinforced overlays: tests, modeling, and fragility analysis. *Structures*, 84, 111119. https://doi.org/10.1016/j.istruc.2026.111119