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ANALISIS KARAKTERISTIK MARSHALL PADA AC-WC DENGAN SUBSTITUSI 50% MATERIAL RECLAIMED ASPHALT PAVEMENT
DAN PENAMBAHAN PEREMAJA ITERLENE
Muhammad Zidni Firdaus, Ir. Latif Budi Suparma, M.Sc., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Aeron, P., Saboo, N., and Aggarwal, P. (2023). Effect of optimum rejuvenator dosage on the performance of 100% recycled asphalt binder. *Mechanics of Time-Dependent Materials*, *28*(4), 2451–2470. https://doi.org/10.1007/s11043-023-09638-4

Alemayehu A. Endale, Gurmel S. Ghataora, and Michael P. N. Burrow. (2022). Asphalt Pavement Cold Recycling and Basic Characteristics of RAP Materials and Their Application. *Journal of Civil Engineering and Architecture*, *16*(1), 38–51. https://doi.org/10.17265/1934-7359/2022.01.004

Al-Mamun, A., Wahhab, H. I. A.-A., and Dalhat, M. A. (2020). Comparative Evaluation of Waste Cooking Oil and Waste Engine Oil Rejuvenated Asphalt Concrete Mixtures. *Arabian Journal for Science and Engineering*, *45*(10), 7987–7997. https://doi.org/10.1007/s13369-020-04523-5

Al-Saffar, Z. H., Yaacob, H., Satar, M. K. I. M., Saleem, M. K., Jaya, R. P., Basar, N., Radeef, H. R., and Hassan, N. A. (2021). Effects of maltene on the attributes of reclaimed asphalt pavement: Performance optimisation. *Construction and Building Materials*, *302*, 1–14. https://doi.org/10.1016/j.conbuildmat.2021.124210

Asphalt Institute. (2014). *Asphalt Mix Design Methods* (7th edition). Asphalt Institute.

Correa, B. M., Specht, L. P., Schuster, S. L., Almeida Júnior, P. O. B., Faccin, C., Boeira, F. D., Silva Pereira, D., Nascimento, L. A. H., and Brito, L. A. T. (2023). Fatigue Performance of Recycled Asphalt Mixtures: Viscoelastic Continuum Damage Approach and Cost Analysis. *Sustainability (Switzerland)*, *15*(11), 1–20. https://doi.org/10.3390/su15118794

Direktorat Jenderal Bina Marga. (2019). Spesifikasi Khusus Interim: Campuran beraspal panas daur ulang pencampuran di unit produksi campuran aspal *(SKh-1.6.27)*. Kementerian Pekerjaan Umum dan Perumahan Rakyat.

Direktorat Jenderal Bina Marga. (2020). Spesifikasi umum 2018 untuk pekerjaan konstruksi jalan dan jembatan (Revisi 2) (Surat Edaran Direktur Jenderal Bina Marga Nomor 16.1/SE/Db/2020). Kementerian Pekerjaan Umum dan Perumahan Rakyat.

Gul, W. A., Mohd Hasan, M. R., Jameel, M., Kamal, K., Mohd Ghazali, M. F. H., Zakaria, Z., and Yang, X. (2025). Waste cooking oil potential as a green rejuvenator to restore the aged binder properties in reclaimed asphalt pavement: A state-of-the-art review. Dalam *Journal of Traffic and Transportation Engineering (English Edition)* (Vol. 12, Nomor 5, hlm. 1125–1149). KeAi Communications Co. https://doi.org/10.1016/j.jtte.2025.03.002

Linek, M., Bacharz, M., and Piotrowska, P. (2023). Surface Cement Concrete with Reclaimed Asphalt. *Materials*, *16*(7). https://doi.org/10.3390/ma16072791

Mazzoni, G., Bocci, E., and Canestrari, F. (2018). Influence of rejuvenators on bitumen ageing in hot recycled asphalt mixtures. *Journal of Traffic and Transportation Engineering (English Edition)*, *5*(3), 156–168. https://doi.org/10.1016/j.jtte.2018.01.001

Nono. (2016). Pengaruh Bahan Peremaja Terhadap Kinerja Campuran Beraspal Panas Bergradasi Menerus Menggunakan Daur Ulang Perkerasan Beraspal. *Jurnal Jalan-Jembatan*, *33*(1), 27–42.

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Noviarti, T., Putra, S., dan Herianto, D. (2019). Potensi Fungsi RAP (Reclaimed Asphalt Pavement) sebagai Bahan Lapis Pondasi (Base). *Jurnal Rekayasa Sipil dan Desain*, *7*(2), 463–474.

Sabaei, M., Hosseini, S. A., Salami, B., and Shirinabadi, R. (2025). Performance evaluation of rejuvenators in recycled asphalt mixtures based on mechanical and rheological properties. *Scientific Reports*, *15*(1). https://doi.org/10.1038/s41598-025-21557-7

Saltan, M., and Khaliqi, M. H. (2024). Effects of utilization of rejuvenator in asphalt mixtures containing recycled asphalt pavement at high ratios. *Case Studies in Construction Materials*, *20*, 1–14. https://doi.org/10.1016/j.cscm.2024.e03095

Sepriyanna, I., Putranto, L. S., Subagio, B. S., and Najid. (2025). Mechanistic Performance Enhancement of Rap Mixtures Using Treated WCO Rejuvenator Stability and Wheel Tracking Assessment. *Journal of Cultural Analysis and Social Change*, *10*(3), 3189–3197. https://doi.org/10.64753/jcasc.v10i3.3757

Sepriyanna, I., Putranto, L. S., dan Sugeng Subagio, B. (2025). Analisis Sifat Fisik dan Mekanik Aspal RAP dengan Bahan Peremaja Waste Cooking Oil (WCO). *Jurnal Deformasi*, *10*(1), 12–17.

Shao, H., Sun, L., Liu, L., You, Z., and Yang, X. (2017). A novel double-drum mixing technique for plant hot mix asphalt recycling with high reclaimed asphalt pavement content and rejuvenator. *Construction and Building Materials*, *134*, 236–244. https://doi.org/10.1016/j.conbuildmat.2016.12.077

Sihombing, A. V. R. (2023). Fatigue performance of recycled asphalt pavement rejuvenated with bio- rejuvenator from coconut shell. Dalam *Jurnal Jalan-Jembatan* (Vol. 40, Nomor 2).

Sorociak, W., Grzesik, B., Bzówka, J., and Mieczkowski, P. (2020). Asphalt concrete produced from rejuvenated reclaimed asphalt pavement (RAP). *Archives of Civil Engineering*, *66*(2), 321–337. https://doi.org/10.24425/ace.2020.131812

Supranowo, Setiadji, B. H., dan Wardani, S. (2021). Kinerja Hotmix Daur Ulang AC-WC Pencampuran Di Unit Produksi Pencampur Aspal. *Jurnal Teknik Sipil*, *28*(2), 197–206. https://doi.org/10.5614/jts.2021.28.2.9

Suwarto, F., dan Sudibyo, T. (2024). Analisis Siklus Hidup pada Campuran Aspal dengan Reclaimed Asphalt Pavement Dengan Metode Life Cycle Asessment. *Jurnal Teknik Sipil dan Lingkungan*, *9*(2), 315–326. https://doi.org/10.29244/jsil.9.2.315-326

Widayanti, A., Soemitro, R. A. A., Ekaputri, J. J., & Suprayitno, H. (2020). Analisis Pemanfaatan Zat Aditif pada Reclaimed Asphalt Pavement untuk Lapisan Beton Aspal. *Jurnal Manajemen Aset Infrastruktur & Fasilitas*, *4*(1), 23–32.