# ABSTRAK

**DENDY RESKY HANDIYONO. 2022.** *Pengaruh Penambahan Bahan Aditif Terhadap Kuat Tekan Paving Block Dengan Bahan Pasir Wilayah Kabupaten Sumenap.* **SKRIPSI, PRODI TEKNIK SIPIL, FAKULTAS TEKNIK, UNIVERSITAS WIRARAJA MADURA.** (Pembimbing : **Dwi Deshariyanto, ST., MT.** dan **Darma Jasuli, ST., MT.**).

Paving block juga dapat berwarna seperti warna aslinya atau diberi zat warna pada komposisi dan digunakan untuk lantai baik didalam maupun diluar bangunandan Paving Blockdengan kualitas baik yaitu Paving blockyang mempunyai nilai kuat tekan tinggi (satuan Mpa), serta nilai presentase serapan air *(absorpsi)* yang rendah (%). Semakin tinggi nilai kuat tekan maka *Paving block*semakin bagus. Sedangkan untuk persentase serapan air (*absorbsi*), semakin rendah nilai *absorbsi*nya, produk Paving blocksemakin kuat.

Penelitian ini dilakukan dengan sebuah eksperimen (percobaan)paving block dengan bahan agregat pasir wilayah kabupaten sumenep yang lolos saringan No.4 penelitian ini menggunakan semen type 1 karena mampu digunakan pada keadaan normal dan tidak memerlukan persyaratan khusus. Karena keterbatasan waktu, tenaga dan biaya maka peneliti mengambil 5 sampel dimana setiap satu sampel 3 buah benda uji dengan menggunakan perbandingan campuran 1 Pc : 3 Ps dengan faktor air semen 0,40. Dengan menggunakan cetakan ukuran paving block 10 cm x 20 cm dengan tebal 6 cm, Sampel yang digunakan pada penelitian ini digunakan komposisiyang terdiri dari semen portland, pasir hitam 30% pasir batu pecah (sirtu) 70% dan air sebagai pereaksi serta bahan aditif yaitu 0%, 1,5%, 3%, 4,5% dan 6% sebagai bahan tambah.dimana pada penelitian ini ingin mengetahui pengaruh penambahan bahan aditif terhadap kuat tekan paving block dengan bahan pasir wilayah kabupaten sumenep.

Penambahan bahan aditif dari 0%, 1,5%, 3%, 4,5%, 6% tidak ada pengaruh yang signifikan terhadap kuat tekan paving block. Artinya variasi campuran bahan aditif yang digunakan tidak mempunyai pengaruh yang simultan terhadap kuat tekan paving block. Hal tersebut dapat dilihat pada hasil analisis dengan menggunakan program SPSS 24 for windows yang menunjukkan bahwa nilai thitung = 1,916< ttabel = 2,306, sehingga dapat diambil keputusan bahwa tidak terdapat pengaruh yang signifakan antara penambahan variasi campuran bahan aditif terhadap nilai kuat tekan paving block.

**Kata Kunci** : Paving block, kuat tekan.

# ABSTRACT

**DENDY RESKY HANDIYONO. 2022**. *The Influence of Sand Material in Sumenep Regency on Specifications and Cost of Lightweight Brick Method CLC*. **UNDERGRADUATE THESIS, CIVIL ENGINEERING STUDY, FACULTY OF ENGINEERING, MADURA WIRARAJA UNIVERSITY**. (Thesis Supervisors : **Dwi Deshariyanto, ST., MT**. and **Darma Jasuli, ST., MT**.)

*Paving blocks can also be colored like the original color or given a dye in the composition and used for floors both inside and outside the building and Paving Blocks with good quality, namely Paving blocks which have high compressive strength values (Mpa units), as well as the percentage value of water absorption (absorption). ) The low one (%). The higher the compressive strength value, the better the Paving block. As for the percentage of water absorption (absorption), the lower the absorption value, the stronger the Paving block product.*

*This research was conducted with an experiment (experimental) paving blocks with sand aggregate in the Sumenep Regency area which passed the No. 4 filter. This study uses type 1 cement because it can be used under normal conditions and does not require special requirements. Due to time, effort and cost limitations, the researcher took 5 samples where each sample had 3 specimens using a mixture ratio of 1 Pc: 3 Ps with a water cement factor of 0.40. By using a paving block size of 10 cm x 20 cm with a thickness of 6 cm, the sample used in this study used a composition consisting of portland cement, 30% black sand, 70% crushed stone (sirtu) and water as a reagent and additives, namely 0%, 1.5%, 3%, 4.5% and 6% as additives. In this study, we wanted to know the effect of adding additives to the compressive strength of paving blocks with sand in the Sumenep district.*

*The addition of additives from 0%, 1.5%, 3%, 4.5%, 6% had no significant effect on the compressive strength of paving blocks. This means that the variation of the mixture of additives used does not have a simultaneous effect on the compressive strength of paving blocks. This can be seen in the results of the analysis using the SPSS 24 for windows program which shows that the value of tcount = 1,916 < ttable = 2,306, so it can be taken a decision that there is no significant effect between the addition of variations in the mixture of additives to the compressive strength of paving blocks.*

***Keywords*** : *Paving block, compressive strength.*

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