



3 Method

Experimental

Research sample are 10 paving blocks consisting of 5 samples of the experimental paving block (Bale Tani) and 5 conventional paving block samples.

This sample is made by dissolving the raw materials of the paving block and printing it later in the puzzle using a hydraulic press machine. The modern method using this machine can produce a good quality paving block.



1 Introduction

Bale Tani paving block is the result of applying the floor model of the traditional house of bale tani in Sade Village, Central Lombok in Indonesia. The characteristic of this paving block is a mixture of rice husk ash and cow dung as and additional alternative material in this manufacture.



Variable Independent



(Cow dung : 15 %)



(Rice husk ash : 8 %)

Variable Dependent



(Paving Block Quality)

Variable Control



(Water)



(Sand)



(Cement)

Paving block is an alternative building for ground cover. The increasing need for paving block has resulted in a reduced and expensive supply of raw materials for paving blocks and the decreasing quality problem of paving blocks.

The floor of Bale Tani traditional house, which remain solid even though it has been shaken by the earthquake since a long time ago, has caused the Bale Tani traditional house to be called an earthquake-proof house.

The floor of the bale tani traditional house is made of a mixture of rice husk ash, cow dung and clay. This culture can be applied into paving blocks so that they can answer the problem of material supply and the quality of the paving blocks.

2 Purposes

Efforts to improve the quality of paving blocks.

Efforts to solve the problem of paving block raw materials.

As scientific information about rice husk ash and cow dung as a mixture of paving blocks.

Efforts to preserve the floor model of the house of Sasak peasants.

6 Recommendation

It is recommended to do more research on the effect of adding cow dung and rice husk ash on paving blocks to the wear and tear of paving blocks and strong water absorption on paving blocks.

5 Conclusion

The test results are that the mixture of rice husk ash as much as 8% and cow dung as much as 15% obtained from the application of the Bale Tani floor can improve the quality of paving block to be more sturdy.

7 Reference

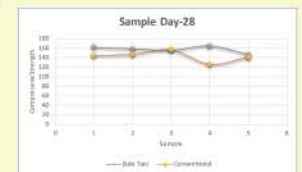
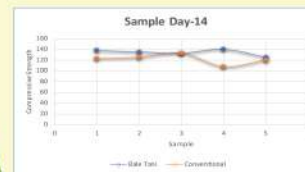
- Amir Y., Basry W. 2019. Pemanfaatan Kotoran Sapi dan Abu Sekam Padi sebagai Pengganti Sebagian Tanah Liat untuk Meningkatkan Kualitas Batu Bata. Siimo Engineering: Jurnal Teknik Sipil. Vol: 3 No. 1. 2019.
- Bakhtiar A. 2009. Studi Peningkatan Mutu Paving-Block Dengan Penambahan Abu Sekam Padi. Jurnal Portal: Jurnal Teknik Sipil. Vol: 1 No: 2. ISSN: 2085-7454. 2009.10.
- Nugroho M.D., Annur M.D.R. 2014. Pemanfaatan Kotoran Sapi untuk Material Konstruksi dalam Upaya Pemecahan Masalah Sosial Serta Peningkatan Tarif Ekonomi Masyarakat. Jurnal Sosioteknologi ITB. Vol: 13 No 2.
- Triastuti, Nugroho A. 2017. Pengaruh Penggunaan Abu Sekam Padi terhadap Sifat Mekanik Beton Busa Rangan. Jurnal Teknik Sipil: Jurnal Teoritis d an Terapan Bidang Rekayasa Sipil. Vol: 24 No. 2. ISSN: 0853-2982. 2017.8.2. Hal: 139-144.



4 Result and Discussion

No.	Test Object Code	Mass g	P. Maximal		Compressive Strength On Test Age (kg/cm ²)	28-Day Compressive Strength Forecast (kg/cm ²)
			KN	kg		
1	Sample 1	3400	240	24473	122.4	144.0
	Sample 2	3300	245	24983	124.9	147.0
3	Sample 3	3400	260	26512	132.6	156.0
4	Sample 4	3400	210	21414	107.1	126.0
5	Sample 5	3300	235	23963	119.8	141.0
Strong Average Press					121.3	142.8

No.	Test Object Code	Mass g	P. Maximal		Compressive Strength On Test Age (kg/cm ²)	28-Day Compressive Strength Forecast (kg/cm ²)
			KN	kg		
1	Sample 1	2500	270	27532	137.7	162.0
	Sample 2	2700	265	27022	135.1	159.0
3	Sample 3	2500	260	26512	132.6	156.0
4	Sample 4	2700	275	28042	140.2	165.0
5	Sample 5	2600	245	24983	124.9	147.0
Strong Average Press					134.1	157.8



The test result illustrates that the quality of experimental paving blocks is better than conventional paving blocks. So that experimental paving blocks are recommendation to replace conventional paving blocks. This means that the floor model of the traditional house of the Bale Tani of the Sasak tribe can be preserved in the form of sturdy paving blocks.

