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STUDI PEMANFAATAN LIMBAH KARBIT SEBAGAI BAHAN PENGGANTI SEBAGIAN SEMEN TERHADAP KUAT TEKAN BETON

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ABSTRACT

Muhammad Reza Anugrah Saputra. ***A Study The Use Of Carbide Waste As A Partially Replacing Cement To Concrete Compressive Strength***. *Thesis, Jakarta: Civil Engineering, Faculty of Engineering, State University of Jakarta, January 2017.*

The purpose of this research is to determine the carbide waste can partially replace cement in compressive strength test in an effort to determine the maximum compressive strength of the concrete.

This research was partially replacing cement with carbide waste with a variety of percentages 0%, 20%, 30%, and 40% of the total weight of cement. Concrete design f'c 20 MPa, W/C 0,55, 12±2 cm slump, amount of sample was 24 (3 samples for each variation for concrete life of 14 and 28 days).

The results showed that 20% variation of carbide waste reached the average concrete compressive strength is 15,94 MPa; 30% variation of carbide waste is 13,58 MPa and 40% variation of carbide waste is 11,6 MPa. The maximum concrete compressive strength contained in 20% variation of carbide waste but not more stronger than the control concrete with average concrete compressive strength is 19,81 MPa.

Keywords: *Carbide Waste, Concrete, Compressive Strength.*