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ANALYSIS OF CONCRETE PRESSURE STRENGTH USING RESISTANT CONCRETE PUBLIC MATERIALS

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ABSTRACT

In general, concrete is the main material that is often used among construction such as the construction of structures and infrastructure. As you know, the main ingredients used to make a concrete are water, cement, coarse aggregates, and fine aggregates. Concrete has several advantages, such as basic materials that are easy to find, weather resistant, easy maintenance, and easy to implement stages. The use of increased concrete can trigger new innovations in the design of making mixtures in concrete.

By triggering new innovations on this occasion, the authors conducted a mixed research on concrete, using concrete debris. The author plans the mix design with the quality of K-250, the test object used for this study with a cube measuring 15cm x 15cm x 15cm as many as 20 pieces. The proportion of the addition of concrete debris mixture is as much as 0% (normal concrete), 5%, 10%, 15%, 20%, concrete which will be tested at 7, 14, 21 and 28 days.

The results of this study indicate that the use of concrete debris can increase concrete compressive strength. Compressive strength of concrete with a percentage of 5% increased by 5.9% compared to normal concrete. For mixtures with a percentage of 10% increasing by 2.2% in normal concrete but, decreasing by 3.7% compared to concrete with a percentage of 5%. While concrete with a 15% presentation mixture increased by 7.2% compared to normal concrete. Concrete with a mixture of 20% increases by 7.9% compared to normal concrete,

Keywords: Concrete, concrete debris, slump test, concrete compressive strength