

# Utilization The Use Of Flour Of Shell And Crumb Rubber On Normal Concrete Mixture With K-225 Quality

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## ABSTRACT

Using crumb rubber from the waste of these tires can cause damage to the environment. From these problems will be conducted research on the utilization of eggshell flour and crumb rubber. Concrete test specimens made 15 x 30 cm in size and planned in accordance with SNI 03-2847-2013, FAS value 0.54, slump 80-130 mm, Proportion of mixture there are 4 variations that is, a mixture of normal concrete, mixed tires with variation 7.5%, 10%, 12.5% of the weight of the *sand*, and the addition of egg shell powder at 10 %, 15%, 20% by weight of cement. Parameters of the test is *the slump test*, the porosity of the concrete, the concrete compressive strength and tensile strength divided. The use of eggshells and used crumb rubber was able to increase the compressive strength and tensile strength of concrete. Highest compressive strength and tensile strength are concrete with variation of 3 waste 12.5% scrap tires and 20% eggshell ie 19.806 N/mm<sup>2</sup> dan 2,146 N/mm<sup>2</sup>. Where as normal concrete compressive strength and tensile strength of concrete sides value of 17, 919 N/mm<sup>2</sup> and 2,004 N/mm<sup>2</sup>

**Keywords:** *Egg Shells, Crumb Rubber, Concrete Compressive Strength and Strong Pull Shopping.*