

ABSTRACT

The demand for construction work in Indonesia continues to increase along with the growth of the construction industry, which triggers a higher need for quality construction materials. Innovation in concrete work is crucial as concrete is the main component in almost all construction projects. Quality concrete must have the flexibility and durability to withstand loads and have a long service life, which is highly dependent on the selection of raw materials and mix proportions. This study aims to design a concrete mix using sikagrout 215 new additive to improve the quality of concrete as per the planned specifications. sikagrout 215 new offers advantages such as fast early strength, resistance to impact and vibration, resistance to shrinkage, and high compressive strength without the risk of corrosion and toxic substances. The research method used was experimental by making concrete test beams using a variety of sikagrout 215 new admixtures at proportions of 0%, 0.4%, 0.8%, and 1.2%, compared to normal concrete. Tests were conducted at 7, 14, and 28 days of concrete age. The results showed that the most optimal flexural strength was achieved with the addition of sikagrout 215 new at 0.4%, which was 4.84 MPa at 28 days of age.

KEY WORDS: *Concrete f'_c 20 MPa, Flexural Strength, Sikagrout 215 New*