INFLUENCE OF CEMENT WATER FACTORS ON USE OF POLYNEVA HE ADDITIVES

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ABSTRACT

Polyneva HE is an additive to reduce the use of water in the concrete mixture, so that the mixture remains easy to work with or the mixture becomes plastic (does not change shape). In addition, the addition of Polyneva HE percentage can also accelerate the hardening of the concrete. The results of this test show that the use of Polyneva HE, as an additive in the concrete mixture has a good compressive strength value. After testing, it can be seen that this system can be used and provides a better value with a total compressive strength value of 30 Mpa. The concrete mixing method using Polyneva HE additives uses the SNI 03 - 2834 - 2000 job mix design, additives in the concrete mixture with variations of -5%, -10%, -15%, + 5%, + 10%, and Normal Concrete + Normal. Concrete that is cured for 3 days, 7 days, 28 days is then tested to obtain the slump value, compressive strength value, and unit weight of the concrete. From the results of this test, the highest compressive strength value was obtained in the variation of 15% Water Reduction + 0.8% Polyneva HE. Polyneva HE also increases the concrete unit weight with a weight between 12000-13000. The highest slump value was obtained at 10% Water Addition + 0.8% Polyneva HE of 14.8.

Keywords: *Concrete Compressive Strength, Polyneva HE, Polyneva HE Dosage Variation, Job Mix*