

**EFFECT OF NEXPLAST HE ADDITION ON CONCRETE
COMPRESSIVE STRENGTH AND SPLIT TENSILE
STRENGTH OF K-250 (DOSAGE 1,0% AND 1,1%)
(RESEARCH STUDY)**

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ABSTRACT

Nexplast HE is an additive in accordance with A.S.T.M.C 494 type F and based on Naphthalene Sulfonate. Nexplast HE functions as water reducer and H-SP (high-superplasticizer) to accelerate the hardening of concrete with high strength range. Nexplast HE is recommended as a concrete mix where laying conditions require high quality concrete. The results of this test show that the utilization of Nexplast HE as an additive to the concrete mix has a good compressive strength value. After testing, it can be seen that this system can be used and provides better value with a total compressive strength value of 22.8 MPa.

The method used in this test is to make a concrete mixture using SNI 03-2834-2000 with Nexplast HE as an additive to the concrete mixture at 1.0% and 1.1%. Concrete treated for 3 days, 14 days, and 28 days was then tested to obtain the compressive strength, split tensile strength and content weight of the concrete.

From the test results it was found that the concrete tested for compressive strength and split tensile strength by adding Nexplast He at a dose of 1.0% increased while the concrete added to Nexplast He using a dose of 1.1% decreased. This decrease occurs because no water reduction is made so that the concrete mixture becomes liquid or dilute, resulting in a decrease in the compressive strength value and a decrease in the tensile strength value of the concrete.

Keywords: *Compressive Strength of Concrete, Tensile Strength of Concrete, Nexplast HE, Variation of Nexplast HE Dosage, Job Mix*