

**ANALYSIS OF CORROSION RESISTANCE AND BEHAVIOR  
OF 25 Mpa Fc CONCRETE WITH THE ADDITION OF GROLEN  
HP 19 R AND SIKA PLASTOCRETE TR-6 PLUS**

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**Abstract**

*Concrete corrosion is a process in which chemicals or certain elements cause damage or degradation of concrete structures. Although concrete is generally considered a durable building material, corrosion can occur due to several factors, corrosive environmental influences, such as sea water. or high salt levels can cause corrosion. In this research, the planning quality, namely 25 Mpa, used the concrete mix planning method in accordance with the SNI-03-2834-2000 standard. One of the research objectives was to use concrete mix planning using the SNI-03-2834-2000 standard to produce concrete that is easy to work with and in accordance with existing workmanship standards in Indonesia. The degree of viscosity and ease of workmanship can be seen during slump testing. The greatest compressive strength of the mixture of Sika Plastocrete Rt -6 Plus 0,3% and Grolen Hp 19 R 0,6% of the cement weight compared to normal concrete (27,08 Mpa). Porosity testing carried out with good mixing was obtained on variations of Sika Plastocrete Rt -6 Plus 0,3% and Grolen Hp 19 R 0,6% which had low absorption. The porosity was also low compared to normal concrete and variations in the percentage of other additives mixed. Concrete shrinkage shrinkage during H1-H7, and H28 does not change with a fixed distance of 20 cm. Corrosion of steel: This variation of substance for normal concrete corrodes more quickly than when using a mixture of other additives.*

**Keywords :** *Corrosion, Shrinkage, Substance Additive*