

Pengaruh Penggunaan Calciumstearate Terhadap nilai Absorpsi Dan Arus Macrocel Pada Beton Bertulang

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Abstract	<p>Bridge structure in the USA amounted to 577,000 units and as many as 134,000 units (23% of the total bridge) against damage caused by corrosion. This damage requires repairs at a cost not less than U.S.\$ 90.9 billion. This damage is similar to the events in Indonesia. This research was performed by use of the calcium Stearate to neutralize reinforcement corrosion in reinforced concrete. Calcium Stearate will react with the cement hydration reaction during the process underway. The result of this reaction is physically looks like a candle. This compound would cover and fill the capillaries when water evaporates in the fresh concrete. This layer does not absorb and impermeable to water and corrosive compounds. So that these compounds caused corrosion of the reinforcement can not penetrate reinforced concrete. The ultimate goal of using calcium Stearate is to increase the service life of aging structures in corrosive areas such as building docks, bridges and rigid layer on the highway. The results showed that the use of calcium Stearate concrete with fly ash at 0% have a tendency of lowering the rate of corrosion of reinforcement and inhibit corrosion. Calcium Stearate with a dose of 2 kg per m³ of concrete can decrease makrocell value amounting to 67%. While on the concrete with fly ash 40%, the addition of 2 kg of calcium Stearate cause makrocell value decreased by 85%.</p>
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