Pengaruh Penggunaan Calciumstearate Terhadapnilai Absorbsi Dan Arus Macrocel Pada Beton Bertulang

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