

Mechanical Study Material on Low Environmental Impact

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Abstract : Our study focuses on two important aspects, environmental by using a sub industrial product (FAD), by economic incorporation as an addition to Portland cement, thus improving resistance to compression and bending with different proportions ADF % up to 40 additions. We studied the effect of different substitutions 0%, 10%, 20%, and 40% of additions to the mechanical effect of the mortar. We obtained a compressive strength of 61 MPa at 90 days for the cement mixture porthland FAD-40% against a resistance of 58MPa for porthland cement without addition. The flexural strength also showed a marked increase in the cement substitution. We also monitored the behavior of the mixed ash-cement by XRD analysis and scanning electron microscopy (SEM).

Keywords : FAD, porthland, flexural strength, compressive strength, DRX

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