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Strength and Corrosion Investigation of Concrete Elements using Sisal Fibres and Aloe Perfoliata Gel

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Abstract : Artificial fibres and natural fibres is an alternative for reinforcement of steel rod or rebar due to fast growing construction industry and reduce the cost of the construction. Now days recently developed the flexural strength using natural fibres such as sisal fibres, coconut fibres, banana fibres, Juet fibres etc. In this paper reported that using the sisal fibre and Aloe Perfoliata gel for development of flexural strength and corrosion resistance in concrete elements. Sisal fibres and aloe perfoliata gel various percentage of adding in concrete and found which type of percentage has given higher strength. Various percentage such as 1% , 1.5 % , 2%, 2.5% 3% etc and using M20 grade of concrete and 0.45 water cement ratio. The high tensile strength, flexural strength and durability is achieved by 1 % of Aloe Perfoliata Gel + 2.5% of Sisal fibres.

Kew words : Sisal fibres, Aloe Perfoliata Gel, M – Sand, compressive strength, tensile strength, flexural durability, corrosion.

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