

**EFFECT OF DOSAGE OF SUPERPLASTICIZERS ON CONCRETE
MICROSTRUCTURE AND STRENGTH**

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ABSTRACT

This work was conducted to evaluate the amount of superplasticizer on concrete microstructure and compressive strength. A melamine-based superplasticizer was used for this investigation. Four dosages of the superplasticizers were used. When the normal dosage of the superplasticizer was used, concrete strength improved considerably. However, when superplasticizer dose was increased beyond normal dose, concrete performance deteriorated. This was attributed to the fact that at high dosages of the superplasticizer substantial segregation in the concrete mixture was observed. This resulted in the poor microstructure which adversely affected concrete strength.