

MATE

**HIGHER TECHNICAL INSTITUTE  
CIVIL ENGINEERING COURSE**

**CONCRETE ADMIXTURES  
AND THEIR EFFECT ON  
CONCRETE PROPERTIES**

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## SUMMARY

This study examines the usefulness of admixtures and their influence on the fresh and hardened state characteristics of mortar and concrete.

It is mainly divided into two parts.

The first part deals with an extended literature survey on the chemical admixtures in concrete, including their chemical action with cement and their influence on concrete properties.

The second part of this study is an experimental program. The main parameters studied in this program are the workability of concrete, volume deformations and 28 day compressive strength. The criterion for comparison being the control mixes with no admixture mixed and cured under the same conditions exactly as the mix under test.

The general conclusion arising from this study is that admixtures are useful materials, which give solutions to many problems arising in concrete production, as long as they are carefully and correctly used. Any material used must conform to the standards accepted in industry all over the world.

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