

17. Building Research
24 B 23 and
Training Centre

Concrete Mixes
of
Pyramidal Gravel
and sand

مركز البحوث
والتقنية
والتقنية

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المركز القومي لبحوث الإسكان والبناء
Housing & Building National Research Center

Since 1954

1. Introduction
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The Reinforced steel Committee of the Building Research Centre has ⁱⁿ recommended in its report, to carry a research work on the concrete made with gravel and sand from different sources in order to determine its properties such that economy can be attained in reinforced steel upon the determination of the concrete quality.

Since cairo zone consumes ~~about~~ 40% of the concrete materials used in Egypt in its ^{re}pro~~g~~ressing amount of constructions, therefore the investigation of concrete made ^{from} local ^xcairo zone materials seems to be of essential importance. Therefore the Building Research Centre started with this study concerning the properties of concrete made from pyramid gravel & sand and Tourah cement in the ratio :

Cement	Sand	Gravel
X Kgs	0.4 Cu. m	0.8 Cu. m

Where as X is the cement content varying from 200 to 500 kgs. and with water / cement ratio varies from 0.3 to 0.9 to give dry, plastic and wet concretes. Such proportions are chosen to represent concrete mixes commonly used in practice.

The study carried out in this paper deals with the determination of physical and chemical properties of pyramid aggregates and Tourah cement, also the properties of fresh and hardened concrete.