

شبكة المعلومات الجامعية







شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار في درجة حرارة من ١٥-٥٠ مئوية ورطوبة نسبية من ٢٠-٠٠% To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%



بعض الوثائـــق الإصليــة تالفــة



بالرسالة صفحات لم ترد بالإصل

AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING

BOND STRENGTH AND FLEXURAL BEHAVIOR OF R.C. BEAMS REINFORCED BY FUSION BONDED EPOXY-COATED BARS

B\$655

by

Magdy Nabil Rizk B.Sc (Honors) 1990 Structural dept.

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN STRUCTURAL ENGINEERING

1997

SUPERVISED BY:

Prof. Dr. Abd Elwahab Aboul-Enain

Professor of Reinforced concrete, Structural dept., Ain Shams University

Prof. Dr. Omar El-Nawawy

Professor of Reinforced concrete, Structural dept., Ain Shams University.

Dr. Samir A. Hekal

Assoc. professor, Structural dept., Ain Shams University.





TO MY FAMILY



AIN SHAMS UNIVERSITY FACULTY OF ENGINEERING

APPROVAL SHEET

BOND STRENGTH AND FLEXURAL BEHAVIOR OF R.C. BEAMS REINFORCED BY FUSION BONDED EPOXY-COATED BARS

by

Magdy Nabil Rizk B.Sc (Honors) 1990 Structural dept.

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN STRUCTURAL ENGINEERING

1997

APPROVED BY:

Prof. Dr. Ali Abdel Rahaman

Professor of Reinforced concrete,

Structural dept., Cairo University

Prof. Dr. Shaker El-Behairy

Professor of Reinforced concrete,

Structural dept., Ain Shams University

Prof. Dr. Abd Elwahab Aboul-Enain

Professor of Reinforced concrete,

Structural dept., Ain Shams University

Prof. Dr. Omar El-Nawawy

Professor of Reinforced concrete,

Structural dept., Ain Shams University.

COMMITTEE IN CHARGE

DATE



AKNOWLEDGMENTS

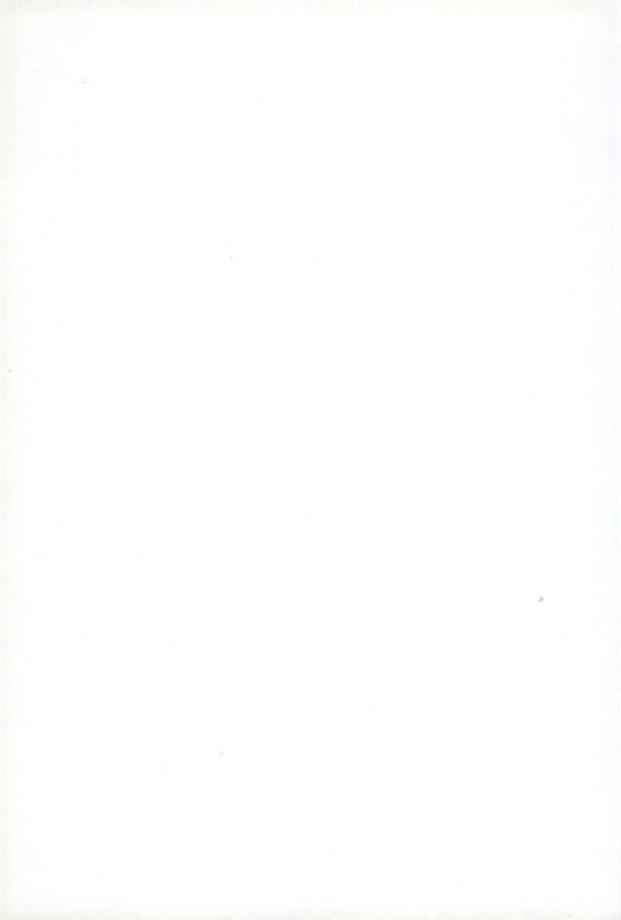
The auther wishes to express his sincere appreciation to **Prof. Dr. Abd Elwahab Aboul-Enain** Professor of Reinforced concrete, Structural dept., Ain Shams University for his kind supervision, guidance, constructive criticism and generous support during this research work.

The author is deeply indebted to **Prof. Dr. Omar Ali El-Nawawy** Professor of Reinforced concrete, Structural dept., Ain Shams University for his constant supervision, planning, guidance, valuable suggestions, generous support, and constant encouragement during all phases of this research work.

The author also wishes to extend his sincere thanks to **Dr. Samir A. Hekal** Assoc. professor, Structural dept., Ain Shams University for his continuous encouragement and generous help which have contributed to the achievement of the theoretical study.

The author is also grateful to all members of the staff of the reinforced concrete laboratory, faculty of engineering, Ain Shams University for their cooperation during the experimental phase of this research work.

Finally, the author dedicates this thesis to his family, for their continuous encouragement, sacrifice, and fruitful care.



STATEMENT

This thesis is submitted to AIN SHAMS University for the degree of master of science in the Structural Engineering. No part of this thesis has been previously submitted for obtaining a degree or a qualification before.

Name: Magdy Nabil Rizk

Date : 19941 Y/7

Signature (ylus

