

FERROCEMENT AND LAMINATED CEMENTITIOUS COMPOSITES

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APPENDIX B: UNIT CONVERSIONS

APPENDIX C: REFERENCES

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APPENDIX D: STANDARD MESHES, WIRES AND BARS

APPENDIX E: COMMON FORMULAS FOR BEAMS

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REVIEWS:

"I have read almost everything written about ferrocement in the English language and can truthfully say: this book is the most comprehensive and authoritative treatment of ferrocement in existence."

Martin E. Iorns, *Industrial Engineer, Member Editorial Board of the Journal of Ferrocement.*

"Ferrocement and Laminated Cementitious Composites is a comprehensive source of information. The author has used his considerable expertise in giving a modern treatment to ferrocement. His emphasis on understanding the relationship between behavior, analysis and design is unique....The book offers perspectives and insights unparalleled in the existing literature on thin reinforced concrete products, and is an invaluable addition to the library of any professional involved in structural concrete."

Surendra P. Shah, *Water P. Murphy Professor of Civil Engineering, Northwestern University, and Director NSF Center for Advanced Cement Based Materials.*

"Indispensable book for engineers, architects, researchers, students and contractors interested in ferrocement and thin reinforced concrete products. The author has provided a much needed single source textbook that consolidates a broad coverage of information, whether on state-of-the-art, design, construction, cost, applications or future potential of ferrocement and hybrid composites."

Gordon B. Batson, *Emeritus Professor of Civil Engineering, Clarkson University, former Chairman ACI Committee on Ferrocement.*

"A unique and comprehensive treatise of laminated cement composites covering materials, fabrication techniques, analysis and design of structural components and systems, and including the

latest developments on high performance composites."

P.N. Balaguru, *Professor of Civil Engineering, Rutgers University, Former Chairman of ACI Committee 549 on Ferrocement.*

"It must certainly be the most comprehensive work in its field. Even sculptors, who may not understand the mathematics, can derive sculptural applications from the many excellent illustrations and verbal explanations and can learn the basics about how and where to place the steel."

Lynn Olson, *Sculptor, Clausen Lane, Valparaiso, Indiana.*

"This detailed and comprehensive book enables an appreciation to be made of ferrocement from theoretical and practical considerations. The many good examples of ferrocement are brought together indicating the undoubted range and breadth of the material and its potential uses which good design and implementation can bring about. It is an indispensable ferrocement companion."

Patrick J. Jennings, *Director of Engineering, NCL Stewart Scott Ltd., London, U.K.*

"This book is indeed the finest and most comprehensive book on the subject that I know of. Professor Naaman has pulled together his 25+ years of experience and research in the ferrocement field and come up with a textbook of ferrocement. This book will most likely become the standard textbook for the teaching field when it comes to ferrocement.

Paul Sarnstrom, *Host, www.ferrocement.net, Montrose, Colorado.*

"I have been collecting books on ferrocement for five years. I recently read 'Ferrocement and Laminated Cementitious Composites'. I'm certain it will lead to the design of many new products and structures. In my opinion, it is definitely the 'ferrocement bible'."

David B. Smith, *Spartanburg, S.C.*

"This book is the first to bring together the wealth of information currently available on ferrocement and presents it in a digestible format. Written in an extremely readable style, it takes the reader through the historical and early technical background to a modern method with abundant worked examples. More practical information on design and construction is then presented with further detail on the specific aspects of cost and housing. A final section on advanced materials and construction offers a sneak preview into a possible future.

Paul Nedwell, *University of Manchester Institute of Science and Technology, Manchester, U.K.*

The engineered cementitious composites are an improved category of concrete that consists of composites and is highly crack resistant. It has a high toughness characteristic due to which it can resist fractures, and after the creation of a crack, unlike normal concrete, it hardens. The material ingredients of engineered cementitious composite are similar to that of fiber reinforced concrete, including cement, sand, water, fiber, and a few chemical additives. Unlike the fiber reinforced concrete, the engineered cementitious composites do not include large volume of fiber. The mixing procedure of engineered cementitious composites is similar to that employed for the normal concrete.

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