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# Astm C 1074

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Concrete Durability

Concrete Mix Design, Quality Control and Specification

Guidelines for Early-opening-to-traffic Portland Cement Concrete for Pavement Rehabilitation

Abstract

Significance of Tests and Properties of Concrete and Concrete-making Materials

Computational Mechanics

Proceedings of the First International Conference on Construction Materials and Structures

An Evaluation of the Maturity Method (ASTM C 1074) for Use in Mass Concrete

Thermo-Hydromechanical and Chemical Coupling in Geomaterials and Applications

An Introduction to Concrete Quality Verification and Testing

State-of-the-art Report (special Project 201).

Relationship Between Computed Rate Constants and the Variability in Maturity-Based Strength Predictions

Field Reference Manual

The Combined Effects of Temperature and Time on Early-age Strength Development

Proceedings of the 5th International Conference on Sustainable Civil Engineering Structures and Construction Materials

Establishing the technology. Phase I

WCCM 2019

Extending the Season for Concrete Construction and Repair

Proceedings of the 3rd International Symposium GeoProc'2008

PRO 40: International RILEM Conference on the Use of Recycled Materials in Buildings and Structures (Volume 2)

10th PhD Symposium in Quebec Canada

Concrete Mix Design, Quality Control and Specification, (with CD ROM), Second Edition

Standard Specifications for Highway and Structure Construction

Compressive Strength of Concrete

The Civil Engineering Handbook

Structural Health Monitoring (SHM) of Civil Structures

Advances in Condition Monitoring and Structural Health Monitoring

An Introduction to Concrete Construction

Advances in Sustainable Construction Materials

Building Code Requirements for Structural Concrete (ACI 318-05) and Commentary (ACI 318R-05)

Structural Engineering, Mechanics and Computation

A Maturity Approach

SEMC 2001 (2 Volume Set)

An Introduction to Engineering Concrete Structures

Specifications for Structural Concrete, ACI 301-05, with Selected ACI References

Report 31: Advanced Testing of Cement-Based Materials during Setting and Hardening - Report of RILEM Technical Committee 185-ATC

Electromagnetic Aquametry

Concrete Maturity

**KHAN MARSH****Concrete Durability** Guyer Partners

This book presents select proceedings of the National Conference on Advances in Sustainable Construction Materials (ASCM 2019) held at the National Institute of Technology, Warangal, India. The book includes contributions from academics and practitioners on low-energy cement technologies, innovative materials and structural technologies towards cost-effective, environment friendly, durable, energy-efficient, and sustainable construction. The topics covered emphasize on cutting-edge, economically viable, and sustainable solutions with an aim to increase profitability, and decrease construction time and overall impact on the built environment. The book will be useful for researchers and practitioners interested in sustainable construction and allied fields.

**Concrete Mix Design, Quality Control and Specification** Elsevier

This report represents nearly 6 years of collaboration among Federal Highway Administration (FHWA), State, and American Concrete Pavement Association (ACPA) engineers on the subject of Fastrack Concrete Paving. As an outgrowth of activities begun in 1986 in Storm Lake, Iowa, a Technical Working Group (TWG) assembled under the auspices of the FHWA's Special Project 201. Since the first meeting in Alexandria, Virginia, in 1988, the TWG has cooperated to construct pilot projects, test concrete material with the FHWA's mobile laboratory, sponsor workshops and conferences nationwide, simulate exercises on urban project designs, complete ACPA's Technical Bulletin on Fastrack, and support follow-on research. This report formally completes activities carried out under SP-201. It presents key information on opening-to-traffic criteria and pavement slab temperature management. It includes a summary of key projects built around the country in the last 6 years. It also includes a copy of ACPA's new bulletin and closes with reprints of several technical reports that may be of interest to the reader.

**Guidelines for Early-opening-to-traffic Portland Cement Concrete for Pavement****Rehabilitation** MDPI

An Evaluation of the Maturity Method (ASTM C 1074) for Use in Mass Concrete Washington, DC : U.S. Army Corps of Engineers Concrete Maturity The Combined Effects of Temperature and Time on Early-age Strength Development Handbook on Nondestructive Testing of Concrete CRC Press

**Abstract** American Concrete Institute

This book contains the proceedings of the fib Symposium "High Tech Concrete: Where Technology and Engineering Meet", that was held in Maastricht, The Netherlands, in June 2017. This annual symposium was organised by the Dutch Concrete Association and the Belgian Concrete Association. Topics addressed include: materials technology, modelling, testing and design, special loadings, safety, reliability and codes, existing concrete structures, durability and life time, sustainability, innovative building concepts, challenging projects and historic concrete, amongst others. The fib (International Federation for Structural Concrete) is a not-for-profit association committed to advancing the technical, economic, aesthetic and environmental performance of concrete structures worldwide.

**Significance of Tests and Properties of Concrete and Concrete-making Materials** CRC Press

This book provides practicing engineers with a step by step approach for making durable concrete with optimum use of the local materials available within the various regions of the United States. It further includes actual concrete mixture proportions for high performance concrete for strength and durability under various aggressive environments based on the author's experience in the field, and support this with illustrative case studies. Examples for concrete mixture proportions, based on the current industry practice and standards, are highlighted to assist engineers in meeting the intended performance requirements (for specific environment conditions) for durable concrete. Covering an important topic for the construction and building materials industries, this book delivers the most up-to-date industry practices and advances in concrete construction from the perspective of a practicing engineer with over 40 year experience. Maximizes practicing engineers' understanding of best design and construction practices in fabricating, delivery, and installation of concrete, consistent with current knowledge on concrete durability Discusses quality control and testing requirements during design and construction, including mixing, production, and placement of concrete and tolerances for slump and air content Emphasizes real-world examples of optimal concrete mixtures, suitable for selected service conditions and applications, based on prior successful records of projects within the US Addresses the role of innovative admixtures in concrete placement in cold weather conditions below 32F and meeting the strength and durability requirements Serves as a valuable resource for students in graduate programs

**Computational Mechanics** Springer

Pavement Engineering will cover the entire range of pavement construction, from soil preparation to structural design and life-cycle costing and analysis. It will link the concepts of mix and structural design, while also placing emphasis on pavement evaluation and rehabilitation techniques. State-of-the-art content will introduce the latest concepts and techniques, including ground-penetrating radar and seismic testing. This new edition will be fully updated, and add a new chapter on systems approaches to pavement engineering, with an emphasis on sustainability, as well as all new downloadable models and simulations.

**Proceedings of the First International Conference on Construction Materials and Structures** CRC Press

Introductory technical guidance for civil engineers, structural engineers and construction managers interested in engineering design and construction of concrete structures. Here is what is discussed: 1. CONSTRUCTION PLANNING 2. CONSTRUCTION METHODS 3. MATERIALS SELECTION 4. MIXTURE PROPORTIONING 5. ARCHITECTURAL CONCRETE 6. SHOTCRETE 7. VERIFICATION AND TESTING 8. CONCRETE PAVEMENTS 9. SLABS ON GRADE 10. SPECIAL CONCRETES 11. ALKALI/SILICATE AGGREGATE REACTIONS 12. EVALUATION OF CONCRETE STRUCTURES 13. CONCRETE STRUCTURES REPAIR 14. REINFORCED CONCRETE HYDRAULIC STRUCTURES

**An Evaluation of the Maturity Method (ASTM C 1074) for Use in Mass Concrete** Springer Nature

The first edition of this comprehensive work quickly filled the need for an in-depth handbook on concrete construction engineering and technology. Living up to the standard set by its bestselling predecessor, this second edition of the Concrete Construction Engineering Handbook covers the entire range of issues pertaining to the construction

**Thermo-Hydronechanical and Chemical Coupling in Geomaterials and Applications** RILEM Publications

This book describes the newest developments in the creation of concrete using smart additives and supplementary cementitious materials as well as methods, technology and novel admixtures to monitor, evaluate and control steel corrosion in reinforced concrete. Industry experts and research specialists explain the structural, physical, and chemical properties of various types of concrete and its applications. They detail the characteristics preferred for manufacturing specific types of concrete. The book chapters also focus on the electrochemical state of the steel reinforcement in view of steel corrosion and corrosion control.

An Introduction to Concrete Quality Verification and Testing FIB - Féd. Int. du Béton

This book covers all aspects of Electromagnetic Aquametry. It summarizes the wide area of metrology and its applications in electromagnetic sensing of moist materials. The physical properties of water in various degrees of binding interacting with electromagnetic fields is presented by model systems. The book describes measurement methods and sensors in the frequency domain, TDR-techniques for environmental problems, methods and sensors for quality assessment of biological substances, and nuclear magnetic resonance techniques. Environmental sciences, as well as civil and geoen지니어ing, fossil fuels, food and pharmaceutical science are the main fields of application. A very wide frequency spectrum is used for dielectric measurement methods, but the microwave range is clearly dominant. Multiparameter methods as well as methods of principal components and artificial neural networks for density independent measurements are described.

State-of-the-art Report (special Project 201). Springer Nature

The two volumes of these Proceedings contain about 200 conference papers and 10 keynote papers presented at the First International Conference on Construction Materials and Structures, held in Johannesburg, South Africa from 24 to 26 November 2014. It includes sections on Materials and characterization; Durability of construction materials; Structural implications, performance, service life; Sustainability, waste utilization, the environment; and Building science and construction.

*Relationship Between Computed Rate Constants and the Variability in Maturity-Based Strength Predictions* IOS Press

Introductory technical guidance for civil and structural engineers and construction managers interested in concrete construction for buildings and infrastructure. Here is what is discussed: 1. CONSTRUCTION PLANNING 2. CONSTRUCTION METHODS 3. MATERIALS SELECTION 4. MIXTURE PROPORTIONING 5. ARCHITECTURAL CONCRETE 6. SHOTCRETE 7. VERIFICATION AND TESTING 8. CONCRETE PAVEMENTS 9. SLABS ON GRADE 10. SPECIAL CONCRETES 11. ALKALI/SILICATE AGGREGATE REACTIONS 12. EVALUATION OF CONCRETE STRUCTURES 13. CONCRETE STRUCTURES REPAIR 14. REINFORCED CONCRETE HYDRAULIC STRUCTURES.

*Field Reference Manual* RILEM Publications

Concrete made using mineral cements, the raw materials which on earth are practically endless, is known as one of the oldest building materials and during the last decades of the twentieth century has become a dominant building material for general use. At the same time, the requirements of the quality of concrete and its performance properties, in particular compressive strength, durability, economical efficiency, and low negative impact of its manufacture on the environment have not yet

been completely met. Bearing these requirements in mind, researchers and engineers worldwide are working on how to satisfy these requirements. This book has been written by researchers and experts in the field and provides the state of the art on recent progress achieved on the properties of concrete, including concrete in which industrial by-products are utilized. The book is dedicated to graduate students, researchers, and practicing engineers in related fields.

*The Combined Effects of Temperature and Time on Early-age Strength Development* ASTM International

GeoProc2008 collects the proceedings of the International Conference on Coupled T-H-M-C (thermal, hydraulic, mechanical, chemical) Processes in Geosystems.

*Proceedings of the 5th International Conference on Sustainable Civil Engineering Structures and Construction Materials* Guyer Partners

This book comprises the selected contributions from the 2nd World Congress on Condition Monitoring (WCCM 2019), held in Singapore in December 2019. The contents focus on digitalisation for condition monitoring with the emergence of the fourth industrial revolution (Industry 4.0) and the Industrial Internet-of-Things (IIoT). The book covers latest research findings in the areas of condition monitoring, structural health monitoring, and non-destructive testing which are relevant for many sectors including aerospace, automotive, civil, oil and gas, marine, and manufacturing industries. Different monitoring systems and non-destructive testing methods are discussed to avoid failures, increase lifespans, and reduce maintenance costs of equipment and machinery. The broad scope of the contents will make this book interesting for academics and professionals working in the areas of non-destructive evaluation and condition monitoring.

Establishing the technology. Phase I An Evaluation of the Maturity Method (ASTM C 1074) for Use in Mass Concrete

The nature of concrete is rapidly changing, and with it, there are rising concerns. Thoroughly revised and updated, this fourth edition of Concrete Mix Design, Quality Control and Specification addresses current industry practices that provide inadequate durability and fail to eliminate problems with underperforming new concrete and defective tests.

*WCCM 2019* Washington, DC : U.S. Army Corps of Engineers

First published in 1995, the award-winning Civil Engineering Handbook soon became known as the field's definitive reference. To retain its standing as a complete, authoritative resource, the editors have incorporated into this edition the many changes in techniques, tools, and materials that over the last seven years have found their way into civil engineering research and practice. The Civil Engineering Handbook, Second Edition is more comprehensive than ever. You'll find new, updated, and expanded coverage in every section. In fact, more than 1/3 of the handbook is new or substantially revised. In particular you'll find increased focus on computing reflecting the rapid advances in computer technology that has revolutionized many aspects of civil engineering. You'll use it as a survey of the field, you'll use it to explore a particular subject, but most of all you'll use The Civil Engineering Handbook to answer the problems, questions, and conundrums you encounter in practice.

**Extending the Season for Concrete Construction and Repair** CRC Press

The latest edition of this established book has been brought completely up-to-date with recent

advances in concrete technology. A practical reference, it illustrates how computers and high-tech testing equipment can save time and money in controlling concrete. The philosophies and methods can be applied to a full range of types of concrete and on straight forward to advance construction projects. On the CD ROM the author gives live colour displays with spoken commentaries of all Conad products and their origins and provides free working mix design and QC programs.

*Proceedings of the 3rd International Symposium GeoProc'2008* CRC Press

Written by international experts in the field, this new edition provides the most comprehensive, up-to-date information available on nondestructive testing (NDT) methods used to evaluate concrete structures. Sixteen chapters give you a comprehensive understanding of the tools and techniques

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- Algebra With Pizzazz Answer Key Page 14 : [click here](#)

used to estimate the in-place strength of concrete and permeation properties that relate to potential durability, and describe methods used to assess the internal condition of concrete and corrosion activity of steel reinforcement.

Springer

A maturity function based on the Arrhenius equation of the rate of chemical reactions was investigated with apparent activation energies for cement hydration being estimated at different stages of cement hydration. Equivalent ages at the times of initial and final set, and during compressive strength and modulus of elasticity gain were calculated.