Specification for Carbon and Glass Fiber-Reinforced Polymer Bar Materials for Concrete Reinforcement

An ACI Standard

Reported by ACI Committee 440



American Concrete Institute[®]

This is a preview. Click here to purchase the full publication.



American Concrete Institute[®] Advancing concrete knowledge

Specification for Carbon and Glass Fiber-Reinforced Polymer Bar Materials for Concrete Reinforcement

Copyright by the American Concrete Institute, Farmington Hills, MI. All rights reserved. This material may not be reproduced or copied, in whole or part, in any printed, mechanical, electronic, film, or other distribution and storage media, without the written consent of ACI.

The technical committees responsible for ACI committee reports and standards strive to avoid ambiguities, omissions, and errors in these documents. In spite of these efforts, the users of ACI documents occasionally find information or requirements that may be subject to more than one interpretation or may be incomplete or incorrect. Users who have suggestions for the improvement of ACI documents are requested to contact ACI. Proper use of this document includes periodically checking for errata at **www.concrete.org/committees/errata.asp** for the most up-to-date revisions.

ACI committee documents are intended for the use of individuals who are competent to evaluate the significance and limitations of its content and recommendations and who will accept responsibility for the application of the material it contains. Individuals who use this publication in any way assume all risk and accept total responsibility for the application and use of this information.

All information in this publication is provided "as is" without warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose or non-infringement.

ACI and its members disclaim liability for damages of any kind, including any special, indirect, incidental, or consequential damages, including without limitation, lost revenues or lost profits, which may result from the use of this publication.

It is the responsibility of the user of this document to establish health and safety practices appropriate to the specific circumstances involved with its use. ACI does not make any representations with regard to health and safety issues and the use of this document. The user must determine the applicability of all regulatory limitations before applying the document and must comply with all applicable laws and regulations, including but not limited to, United States Occupational Safety and Health Administration (OSHA) health and safety standards.

Order information: ACI documents are available in print, by download, on CD-ROM, through electronic subscription, or reprint and may be obtained by contacting ACI.

Most ACI standards and committee reports are gathered together in the annually revised ACI Manual of Concrete Practice (MCP).

American Concrete Institute 38800 Country Club Drive Farmington Hills, MI 48331 U.S.A. Phone: 248-848-3700 Fax: 248-848-3701

www.concrete.org

This is a preview. Click here to purchase the full publication.

Specification for Carbon and Glass Fiber-Reinforced Polymer Bar Materials for Concrete Reinforcement

An ACI Standard

Reported by ACI Committee 440

	John P. Busel Chair	Carol K. Shield [*] Secretary	
Tarek Alkhrdaji	Russell Gentry	James G. Korff	Andrea Prota
Charles E. Bakis	Janos Gergely	Michael W. Lee	Hayder A. Rasheed
Lawrence C. Bank [*]	William J. Gold	Maria Lopez de Murphy	Sami H. Rizkalla
Abdeldjelil Belarbi	Nabil F. Grace	Ibrahim M. Mahfouz	Morris Schupack
Brahim Benmokrane	Mark F. Green	Orange S. Marshall	Rajan Sen
Luke A. Bisby	Zareh B. Gregorian	Amir Mirmiran	Khaled A. Soudki
Gregg J. Blaszak	Doug D. Gremel [*]	Ayman S. Mosallam	Samuel A. Steere III [*]
Timothy E. Bradberry [*]	Shawn P. Gross	John J. Myers	Gamil S. Tadros
Gordon L. Brown Jr.	H. R. (Trey) Hamilton III	Antonio Nanni [†]	Jay A. Thomas
Vicki L. Brown	Issam E. Harik	Kenneth Neale	Houssam A. Toutanji
Raafat El-Hacha	Kent A. Harries	John P. Newhook	J. Gustavo Tumialan
Garth J. Fallis [*]	Mark P. Henderson [*]	Ayman M. Okeil	Milan Vatovec
Amir Z. Fam	Bohdan N. Horeczko	Carlos E. Ospina [*]	Stephanie L. Walkup
Edward R. Fyfe	Vistasp M. Karbhari	Max L. Porter	David White

*Contributing authors. [†]Task group Chair.

The committee also thanks Nick Carino, Bernard Drouin, Jack Lesko, and Renato Parretti for their contributions.

This Material Specification covers provisions governing testing, evaluation, and acceptance of carbon and glass fiber-reinforced polymer (FRP) bars used as reinforcement for concrete.

Keywords: carbon fiber; concrete; concrete construction; FRP reinforced concrete; fiber-reinforced polymer reinforcement; glass fiber; specification.

CONTENTS Section 1—Scope, p. 440.6-2

Section 2—Referenced documents, p. 440.6-2

Section 3—Terminology, p. 440.6-2

- Section 4—Classification, p. 440.6-2
- Section 5—Ordering information, p. 440.6-3
- Section 6—Materials and manufacture, p. 440.6-3

Sections 7—Physical properties, p. 440.6-3

Section 8—Mechanical properties, p. 440.6-4

Section 9—Durability properties, p. 440.6-4

Section 10—Other requirements, p. 440.6-5

Section 11—Sampling, p. 440.6-5

Section 12—Rejection, p. 440.6-5

Section 13—Product certification, p. 440.6-5

Section 14—Markings, p. 440.6-6

This is a preview. Click here to purchase the full publication.

ACI 440.6-08 was adopted April 30, 2008, and published June 2008. Copyright © 2008, American Concrete Institute.

All rights reserved including rights of reproduction and use in any form or by any means, including the making of copies by any photo process, or by electronic or mechanical device, printed, written, or oral, or recording for sound or visual reproduction or for use in any knowledge or retrieval system or device, unless permission in writing is obtained from the copyright proprietors.