

ACI 546.4R-20

IN-LB

Inch-Pound Units

SI

International System of Units

# Guide for Jobsite Quality Control and Quality Assurance of Cementitious Packaged Materials

Reported by ACI Committee 546



American Concrete Institute  
*Always advancing*

This is a preview. [Click here to purchase the full publication.](#)



## **Guide for Jobsite Quality Control and Quality Assurance of Cementitious Packaged Materials**

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 via the errata website at <http://concrete.org/Publications/DocumentErrata.aspx>. Proper use of this document includes periodically checking for errata 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.

Participation by governmental representatives in the work of the American Concrete Institute and in the development of Institute standards does not constitute governmental endorsement of ACI or the standards that it develops.

Order information: ACI documents are available in print, by download, 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 the ACI Collection of Concrete Codes, Specifications, and Practices.

**American Concrete Institute**  
**38800 Country Club Drive**  
**Farmington Hills, MI 48331**  
**Phone: +1.248.848.3700**  
**Fax: +1.248.848.3701**

[www.concrete.org](http://www.concrete.org)

# Guide for Jobsite Quality Control and Quality Assurance of Cementitious Packaged Materials

Reported by ACI Committee 546

Peter Barlow, Chair

Chris White, Secretary

Michael M. Chehab  
Kevin Conroy  
Marwan A. Daye  
John D. Fauth  
Michael J. Garlich  
Paul E. Gaudette

Timothy R. W. Gillespie  
Matthew R. Hansen  
Susan Isble  
Lawrence F. Kahn  
Brian F. Keane  
Kenneth M. Lozen

John S. Lund  
James E. McDonald  
Jay H. Paul  
Johan L. Silfwerbrand  
Michael M. Sprinkel\*  
Aamer H. Syed

George I. Taylor  
Joseph E. Tomes  
David A. VanOcker  
Kurt Wagner  
David W. Whitmore

## Consulting Members

Peter Emmons  
Fred R. Goodwin  
Harald G. Greve

Noel P. Mailvaganam  
Kevin A. Michols  
Richard Montani

Don T. Pyle  
Nicholas R. Triandafilou  
Patrick M. Watson

\*Subcommittee Chair.

*This guide provides recommended practices for jobsite quality control and quality assurance for use of cementitious packaged materials.*

**Keywords:** cementitious packaged materials; quality assurance; quality control.

## CONTENTS

### CHAPTER 1—INTRODUCTION AND SCOPE, p. 2

- 1.1—Introduction, p. 2
- 1.2—Scope, p. 2

ACI Committee Reports, Guides, and Commentaries are intended for guidance in planning, designing, executing, and inspecting construction. This document is 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. The American Concrete Institute disclaims any and all responsibility for the stated principles. The Institute shall not be liable for any loss or damage arising therefrom.

Reference to this document shall not be made in contract documents. If items found in this document are desired by the Architect/Engineer to be a part of the contract documents, they shall be restated in mandatory language for incorporation by the Architect/Engineer.

### CHAPTER 2—DEFINITIONS, p. 2

### CHAPTER 3—PACKAGED MATERIALS, p. 2

- 3.1—Selecting packaged materials, p. 2
- 3.2—Addition of liquid, admixtures, and aggregates, p. 3
- 3.3—Technical data sheets, p. 3

### CHAPTER 4—CONSTRUCTION WITH PACKAGED MATERIALS, p. 3

- 4.1—General, p. 3
- 4.2—Delivery of packaged materials to site, p. 3
- 4.3—Storage at site, p. 3
- 4.4—Handling of materials, p. 3
- 4.5—Surface condition and preparation, p. 3
- 4.6—Batching and mixing materials, p. 3
- 4.7—Mixed material testing, p. 4
- 4.8—Placing and curing materials, p. 4

### CHAPTER 5—JOBSITE QUALITY CONTROL AND QUALITY ASSURANCE, p. 7

- 5.1—Quality control and quality assurance, p. 7
- 5.2—Verification of material properties, p. 7

ACI 546.4R-20 was adopted and published May 2020.

Copyright © 2020, 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 granted by the American Concrete Institute.