



PROCESS  
INDUSTRY  
PRACTICES

December 2021

**Structural**

**PIP STS03600M**  
**Application of ACI 351.4M-14,**  
***Specification for Installation of Cementitious Grouting***  
***between Foundations and Equipment Bases (Metric)***

---

## PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

© Process Industry Practices (PIP), Construction Industry Institute, The University of Texas at Austin, 3925 West Braker Lane (R4500), Austin, Texas 78759. PIP Member Companies and Subscribers may copy this Practice for their internal use. Changes or modifications of any kind are not permitted within any PIP Practice without the express written authorization of PIP. Authorized Users may attach addenda or overlays to clearly indicate modifications or exceptions to specific sections of PIP Practices. Authorized Users may provide their clients, suppliers and contractors with copies of the Practice solely for Authorized Users' purposes. These purposes include but are not limited to the procurement process (e.g., as attachments to requests for quotation/ purchase orders or requests for proposals/contracts) and preparation and issue of design engineering deliverables for use on a specific project by Authorized User's client. PIP's copyright notices must be clearly indicated and unequivocally incorporated in documents where an Authorized User desires to provide any third party with copies of the Practice.

### **PUBLISHING HISTORY**

*December 2021 Issued*

Not printed with State funds



**PIP STS03600M**  
**Application of ACI 351.4M-14,**  
***Specification for Installation of Cementitious Grouting***  
***between Foundations and Equipment Bases (Metric)***

---

**Table of Contents**

**Scope .....2**

**References .....2**  
Industry Codes and Standards.....2

**Definitions.....2**

**Requirements .....3**  
General.....3  
Revisions to ACI 351.4M-14 .....3

## Scope

---

This Practice supplements *ACI 351.4M-14, Specification for Installation of Cementitious Grouting between Foundations and Equipment Bases (Metric)*. Together, this Practice and *ACI 351.4M-14* provide requirements for supplying, testing and installing nonshrink cementitious grout materials. This Practice is applicable for nonshrink cementitious grout materials installed between foundations and equipment and machinery bases as well as nonshrink cementitious grout materials installed between foundations and structural steel column bases.

The requirements of *ACI 351.4M-14*, as modified and supplemented by this Practice, are adopted by this Practice for supplying, testing and installing nonshrink cementitious grout materials.

## References

---

Applicable requirements of the following industry standard shall be considered an integral part of this Practice. Short title is used herein where appropriate.

### Industry Codes and Standards

- American Concrete Institute (ACI)
  - *ACI 351.4M-14 - Specification for Installation of Cementitious Grouting between Foundations and Equipment Bases (Metric)*

## Definitions

---

Terminology used in the additions and modifications to the requirements of *ACI 351.4M-14* presented in the Requirements section of this Practice is the same as terminology used in *ACI 351.4M-14* with the exception of the PIP terms “purchaser” and “owner” which are presented in one term in *ACI 351.4M-14* as “Owner.” PIP terminology and definitions that are considered equivalent to terminology used in *ACI 351.4M-14* are provided for reference below:

*constructor*: Party responsible for supplying materials, equipment, tools, supervision, and labor for installation of nonshrink cementitious grout in accordance with contract documents. The term constructor applies also to constructor’s subcontractor(s) and vendor(s). Referred to as “Contractor” in *ACI 351.4M-14*.

*contract documents*: Any and all documents, including codes, studies, design drawings/documents, specifications, sketches, practices, and data sheets, that purchaser has transmitted or otherwise communicated, either by incorporation or reference, and made part of the legal contract agreement or purchase order between purchaser and constructor. Referred to as “Contract Documents” in *ACI 351.4M-14*.

*inspector*: Party responsible for verifying quality of all materials, installations, and workmanship furnished by constructor. Inspector is qualified by training and experience and holds certifications or documentation of their qualifications. Unless otherwise specified in contract documents, inspector is an independent party retained by purchaser. Referred to as “Owner’s Testing agency” in *ACI 351.4M-14*.

*nonshrink cementitious grout manufacturer*: Party who produces and warrants the performance of nonshrink cementitious grout materials provided in accordance with contract documents. Nonshrink cementitious grout materials are manufactured in a controlled process using standard codes, specifications, tests and possibly include shop drawings to assist in proper application, installation and/or