

Release date: November 2017

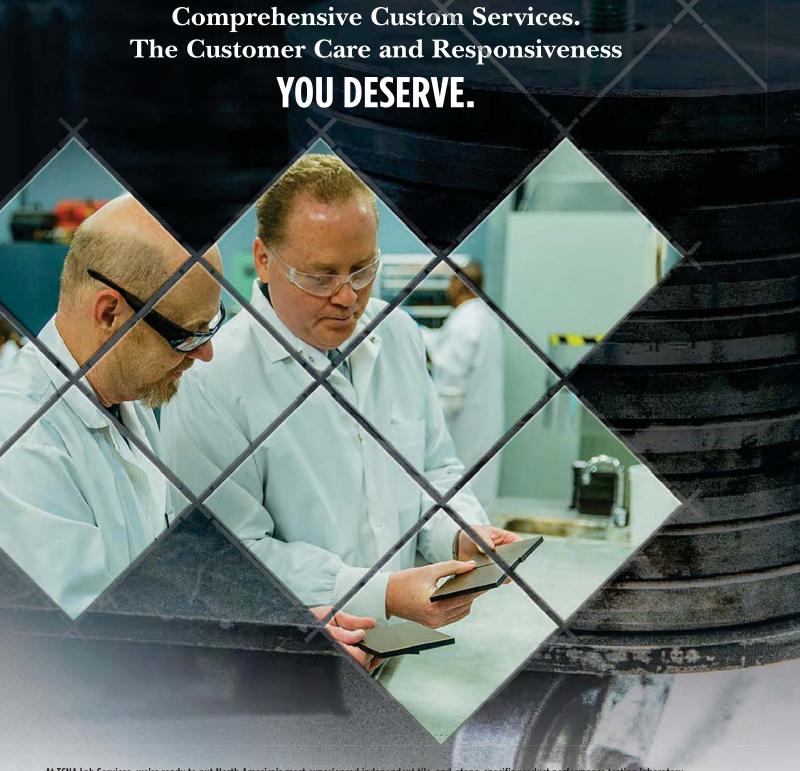
For updates: www.TCNAtile.com

American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs

Material and Installation Standards







At TCNA Lab Services, we're ready to put North America's most experienced independent tile-and-stone-specific product performance testing laboratory to work for you in assessing the characteristics of your ceramic tiles, glass tiles, dimension stone, and installation materials. You'll have access to an incomparable catalog of services: no other lab offers the experience and the comprehensive testing menu we provide. We offer more than 70 ASTM, ANSI and ISO standard tests—including 45 test methods accredited under ISO17025—as well as an extensive range of custom services: targeted research, product development, testing developed for future standards, and testing to explore or show specific attributes.

We're always ready to supply the analytics you need along the journey to innovation.





American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs

Material and Installation Standards

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

ANOIATOLO ZOTI ANA ATOOLIO ZOTI

Release date: November 2017 For updates: www.TCNAtile.com

American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs

Material and Installation Standards

Secretariat

Tile Council of North America, Inc.

Approved

American National Standards Institute, Inc. (ANSI)

Abstract

This publication is a compilation of the voluntary standards for gauged porcelain tiles and gauged porcelain tile panels/slabs. American National Standard A137.3 describes the minimum physical properties and grading procedures for gauged porcelain tiles and gauged porcelain tile panels/slabs manufactured to specific nominal thicknesses. This standard provides quality criteria for buyers, specifiers, installers, manufacturers, and the public in general. American National Standard A108.19 provides interior installation procedures and requirements for installing gauged porcelain tiles and gauged porcelain tile panels/slabs. These standards are intended to be referenced or included in the gauged tiles and gauged tile panels/slabs sections of project specifications and contracts. Other American National Standards referenced within these standards are published separately.

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

American National Standards

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity.

Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he or she has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretation should be addressed to the secretariat or sponsor whose name appears on the title page of these standards.

CAUTION NOTICE: These American National Standards may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw these standards. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute. For information regarding the latest version of these standards, including any updates since the last printing, refer to www.TCNAtile.com.

TCNA Production Staff

Eric Astrachan, Executive Director

Bill Griese, Director of Standards Development and Sustainability Initiatives

Stephanie Samulski, Installation Specialist

Katelyn Simpson, Laboratory Manager

Ryan Marino, Standards Development and Laboratory Engineer

Lynn M. Zott, Project Manager

Kathy Meyer, Marketing Director



www.TCNAtile.com

100 Clemson Research Blvd. Anderson, SC 29625 USA

(864) 646-8453

Ave. Batallón de San Patricio #109-627. Colonia Valle Oriente, San Pedro Garza García Nuevo León, México. CP 66269

52 (81) 8625-3306

COPYRIGHT © 2017 Tile Council of North America

Printed in the United States of America.

ISBN: 978-0-9977681-3-8

Library of Congress Control Number: 2017956644

ALL RIGHTS RESERVED. No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means (graphic, electronic, or mechanical, including photocopying, recording, taping, internet distribution or information storage and retrieval systems) without the written permission of the publisher.

Published by Tile Council of North America.

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

roreword

This foreword is not part of American National Standards A137.3 or A108.19.

American National Standard A137.3 describes the minimum physical properties and grading procedures for gauged porcelain tiles and gauged porcelain tile panels/slabs manufactured to specific nominal thicknesses. American National Standard A108.19 provides interior installation procedures and requirements for installing gauged porcelain tiles and gauged porcelain tile panels/slabs. These standards are intended to serve as a guide to the general public, manufacturers, distributors, specifiers, architects, tile contractors, testing laboratories, and other businesses and professionals in the tile industry.

While the existence of these standards does not in any respect preclude anyone, including those who have accepted them, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to these standards, producers of gauged porcelain tile and gauged porcelain tile panels/slabs made in conformance with A137.3 are encouraged individually to indicate such conformance in advertising, promotion, and labeling.

FOREWORD vii

ASC A100 Committee Members

These standards were processed and approved for submittal to ANSI by the Accredited Standards Committee (ASC) on Ceramic Tile A108. Committee approval of a standard does not necessarily imply that all committee members voted for its approval.

The ASC A108 Committee had the following members at the time of publication:

ChairmanChris WalkerVice ChairmanNyle WadfordSecretaryKatelyn SimpsonCo-SecretaryEric Astrachan

Organization	Representative
American Wonder Porcelain	James Neel
APA The Engineered Wood Association	BJ Yeh
Arcom, Inc.	Ronald Ray
Ardex Americas	Mark Pennine
Artcraft Granite Marble and Tile	James Woelfel
Arto Brick California Pavers	William Love
Atlas Minerals and Chemicals	Steve Abernathy
Bostik, Inc.	Chad Bulen
Ceramic Tile and Stone Association of Arizona	Sam Hibbs
Ceramic Tile and Stone Consultants	Donato Pompo
Ceramic Tile Distributors Association	Sam Widener
Ceramic Tile Education Foundation	Scott Carothers
Ceramic Tile Institute of America, Inc.	Gray LaFortune
Chicago Tile Institute	Scott Conwell
Construction Specifications Institute	Randall Chapple
Cox Tile, Inc.	John Cox
Crossville, Inc.	Noah Chitty
Custom Building Products	Steve Taylor
Dal-Tile International	Terry Adams
David Allen Company	Martin Howard
Detroit Ceramic Tile Contractors Association	Kurt Von Koss
Florida Tile, Inc.	Armando Bergamini
Forensic Tile Consultants	Greg Mowat
Fortifiber Building Systems Group	Roger Barker
Glass Tile Consultants	Scott Fleming
Great Lakes Ceramic Tile Council	Gerald Chioini
Gypsum Association	Michael Schmeida

institute of inspection, Cleaning, and Kestoration Certification Kobert Dameis

Interceramic

International Union of Bricklavers and Allied Craftworkers Mike Hawthorne

Eduardo Rios

International Union of Bricklayers and Allied Craftworkers Mike Hawthorne

ISO TC-189 Committee Svend Hovmand

James Hardie Building Products

Chad Diercks

Laticrete International, Inc.

Steve Fine

Malibu Art Tile & Stone Lindell Lummer

Mapei Corporation Dan Marvin

Marble Institute of America Chuck Muehlbauer

Materials and Methods Standards Association Aiping Lu

Metropolitan Ceramics/Ironrock, Inc. Guy Renkert

Moore Engineering Services Scott D. Moore

National Association of Home Builders

Gary Ehrlich

National Gypsum Company

Tony Fuller

National Terrazzo & Mosaic Association Gary French

National Tile Contractors Association Chris Walker

Neuse Tile Service, Inc.

Nyle Wadford

Noble Company Jim Wadaga

Oceanside Glasstile Company Brian Fitzgerald

Portland Cement Association Jamie Farny

Professional Consultants International, LLC Richard Goldberg

Radiant Panel Association Tracy Hall

Schluter Systems Sean Gerolimatos

Siena/Omega Tom Domenici
Steel Framing Industry Association Patrick W. Ford

StonePeak Ceramics, Inc. Federica Minozzi

Summitville Tiles, Inc. Joe Dutt

TCA Team, LLC Stephanie Samulski

TCNA Underlayment Committee Mike Micalizzi

Terrazzo, Tile, and Marble Association of Canada Dale Kempster

Tile and Stone Council of Northern California Rich Galliani

Tile Contractors Association of America John Trendell

Tile Council of North America, Inc.

Bill Griese

UL Environment Josh Jacobs

United Brotherhood of Carpenters Eric Kastner

United States Gypsum Corporation Yanfei Peng

US TAG to ISO TC-189 WG3 Greg Schad

COMMITTEE MEMBERS ix

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

NOTICE OF DISCLAUVIER AND LIMITATION OF LIABILITY

THIS PUBLICATION AND ALL OF THE INFORMATION IT CONTAINS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, WHETHER EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANT-ABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT, ARE HEREBY EXPRESSLY DISCLAIMED.

PUBLISHER HAS NOT PERFORMED ANY INDEPENDENT ANALYSIS IN CONNECTION WITH ANY OF THE INFORMATION CONTAINED HEREIN, AND EXPRESSLY DISCLAIMS ANY OBLIGATION TO OBTAIN AND INCLUDE INFORMATION OTHER THAN THAT PRESENTED HEREIN RESULTING FROM THE AMERICAN NATIONAL STANDARDS INSTITUTE ACCREDITED STANDARDS COMMITTEE A108 CONSENSUS PROCESS.

THIS INFORMATION DOES NOT PURPORT TO ADDRESS SAFETY ISSUES OR APPLICABLE REGULATORY REQUIREMENTS ASSOCIATED WITH ITS USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO REVIEW ANY APPLICABLE CODES AND OTHER REGULATIONS AND ANY SITE SPECIFIC CONDITIONS IN CONNECTION WITH THE USE OF THIS INFORMATION. PUBLISHER EXPRESSLY MAKES NO REPRESENTATIONS OR WARRANTIES REGARDING USE OF THIS INFORMATION AND COMPLIANCE WITH ANY APPLICABLE STATUTE, RULE OR REGULATION.

THE READER IS EXPRESSLY WARNED TO CONSIDER AND ADOPT ALL SAFETY PRECAUTIONS APPROPRIATE FOR THE ACTIVITIES HEREIN AND TO AVOID ALL POTENTIAL HAZARDS. SUCH PRECAUTIONS ARE GENERALLY NOT LISTED HEREIN AND ARE OUTSIDE THE SCOPE OF THIS DOCUMENT.

UNDER NO CIRCUMSTANCES WILL PUBLISHER BE LIABLE TO ANY PERSON OR BUSINESS ENTITY FOR ANY DAMAGES, INCLUDING WITHOUT LIMITATION ANY AND ALL DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES, RESULTING, IN WHOLE OR IN PART, FROM ANY USE OF, REFERENCE TO, OR RELIANCE UPON THIS PUBLICATION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING LIMITATION OF LIABILITY IS A FUNDAMENTAL ELEMENT OF THE USE OF THIS INFORMATION AND THE INFORMATION WOULD NOT BE OFFERED BY THE PUBLISHER WITHOUT SUCH LIMITATION.

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

Contents

A137.3 — MATERIAL STANDARD

ANSI A137.3	American National Standard Specifications for Gauged Porcelain Tiles and
	Gauged Porcelain Tile Panels/Slabs—2017

1.0	Purpose	1
2.0	Scope	1
3.0	Definition of Terms	1
4.0	Acceptable Properties for Gauged Porcelain Tiles and Tile Panels/Slabs	5
5.0	Specialty Tiles or Tile Panels/Slabs	10
6.0	Grade Marking and Certification	11
7.0	Applicable Evaluation Procedures	12
	Figures—A137.3	17

A108.19 — INSTALLATION STANDARD

ANSI A108.19 American National Standard Specifications for Interior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs by the Thin-Bed Method Bonded with Modified Dry-Set Cement Mortar or Improved Modified Dry-Set Cement Mortar—2017

	Introduction	25
	Scope	25
1.0	Wall and Ceiling Substrates	25
2.0	Floor Substrates	26
3.0	Existing Surfaces/Substrates	27
4.0	Related Work Specified in Other Sections	27
5.0	Substrate Flatness	28
6.0	General Substrate Requirements	28
7.0	Jobsite Requirements	28
8.0	Material Handling Requirements	29
9.0	Tile Specifications and Ordering	30
10.0	Installing Contractor	30
11.0	General Requirements for Installation	31
12.0	Mortar and Mortar Mixing	31
13.0	Application of Bonding Mortar	31
14.0	Embedding the Tile	32
15.0	Required Mortar Coverage	35
16.0	Grouting of Tile	36
17.0	Workmanship, Lippage, and Grout Joint Size	36
18.0	Movement Joints	36
19.0	Damage to Tile Work	37
20.0	Maintenance	37

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

ANSI
Anerican National Standard Specifications
for Gauged Porcelain Tiles and Gauged
Porcelain Tile Panels/Slabo 2017

This is a preview of "ANSI A137.3/A108.19:". Click here to purchase the full version from the ANSI store.

ANSI A IOLIO

American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs—2017

1.0 Purpose

These specifications serve as a reference standard for buyers, specifiers, installers, building owners, and users of gauged porcelain tiles and gauged porcelain tile panels/slabs (hereafter referred to as "tiles" and "tile panels/slabs"). These specifications are also a reference standard for producers in the manufacture of such products.

2.0 Scope

These specifications describe the minimum physical properties of gauged porcelain tiles and gauged porcelain tile panels/slabs and back-layered gauged porcelain tiles and gauged porcelain tile panels/slabs manufactured to a specific nominal thickness. Standard Grade, Second Grade, and Specialty products are specified herein, including their basis for acceptance and methods of testing before and after installation; their marking and certification of same; and the definitions of terms relating to these products.

In this Standard, American and SI measurement units are provided. The value not in parenthesis shall be considered the normative reference, and the value in parenthesis is included for informative reference only.

This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

3.0 Definition of Terms

Definitions from A137.1 for the following apply equally to A137.3, replacing "tile" in A137.1 with "tile or tile panel/slab":

Dynamic Coefficient of Friction (DCOF)

Facial Defect

Floor Tile

Nominal Size

Porcelain Tile

Sampling

Shade or Shade Value

Specialty Tile

Standard Shade Tile

Structural Defects

Surface Texture

Tile Edge

Wall Tile

Additionally, the following definitions apply:

Back-Layered Gauged Tile or Tile Panel/Slab: A gauged tile or tile panel/slab with a material, commonly mesh, that has been attached to its back after firing for the purposes of reinforcing. Back-layered material thickness must not exceed 20% of the tile or tile panel/slab's thickness.

A137.3—2017 **1**