



BRADLEY CORPORATION
TERREON SOLID-SURFACE-MATERIAL LAVATORY DECKS AND SINKS
Guide Specification

Bradley Corporation, the industry's leading manufacturer of premium quality commercial lavatories, presents **Terreon Solid-surface-material and TerreonRE Recycled Solid-surface-material** for countertops and vanities with accompanying integrated solid surface sinks. Terreon lasts a lifetime and can easily be repaired and renewed, minimizing the need for replacement or disposal. They meet the highest industry quality and performance standard for solid-surface-materials, ANSI/ICPA SS-1-2001.

Many of the environmental benefits of Terreon products come from efficient manufacturing processes and the longevity of the materials. Over 96% of all Terreon products are completely molded including bowls, overflows, backsplashes and aprons. This eliminates fabrication waste and the use of sealants and adhesives for completely molded designs such as our Washfountains, Advocate Lavatory Systems, Express Lavatory Systems, Frequency Lavatory Systems, and Multi-Fount Washfountains.

Terreon and TerreonRE are GREENGUARD Certified for Indoor Air Quality and Indoor Air Quality for Children & Schools. They are composed of a non-toxic, bio-based, resin, and produce virtually no "off-gassing" of volatile organic compounds. Terreon and TerreonRE are nonporous materials which means that they will not support the growth of mold, mildew or bacteria - substances that can adversely affect indoor air quality.

Pigments used to manufacture Terreon and TerreonRE are free from heavy metals and toxic or carcinogenic ingredients. They withstand the abuse of chemicals, stains, burns and impact. Both materials are Class 1 Fire Rated, so in a fire situation, they burn clean with an insignificant amount of smoke.

TerreonRE Recycled Solid-surface-material: As part of Bradley's Commitment to the Environment, Bradley introduced TerreonRE. It has all of the features of Terreon Solid Surface with the added benefit of 25% pre-consumer recycled granules and 8% rapidly renewable material which can count toward LEED credits. Bradley offers an extensive Terreon and TerreonRE color collection as an option for Bradley's solid surface product offerings.

Bradley Corporation serves a diverse customer base ranging from local business facilities to international corporations like Wal-Mart, General Motors, U.S. Postal Service, W.W. Grainger, and AMC Theaters Corporation. Architects, engineers, and specifiers look to Bradley Corporation for innovation in design and leadership in the development of environmentally conscious products. Bradley Corporation, a member of the U.S. Green Building Council, the Wisconsin Green Building Alliance, has several products earning certification by GREENGUARD Environmental Institute, and GREENGUARD Children and Schools program.

Bradley eases the specifying process with a seasoned customer service staff and a range of helpful information tools on an advanced website. Bradley is the industry leader in the manufacture of premium quality commercial plumbing fixtures, valves, TMVs and washroom accessories that appear in the following CSI MasterFormat 2012™ Sections:

Section 10 21 13 – TOILET COMPARTMENTS (Mills® Metal, Plastic-laminate, Phenolic, and Plastic units)

Section 10 28 13.13 – COMMERCIAL TOILET ACCESSORIES (Institutional and commercial accessories)

Section 10 28 13.14 – COMMERCIAL TOILET ACCESSORIES – Diplomat Series

Section 10 28 13.19 – HEALTHCARE TOILET ACCESSORIES (Patient care accessories)

Section 10 28 13.21 – WARM AIR DRYERS (Aerix® hand dryers)

Section 10 28 13.63 – DETENTION TOILET ACCESSORIES

Section 10 28 16 – BATH ACCESSORIES (Hospitality and commercial bath accessories)

Section 10 51 26 – PLASTIC LOCKERS (Lenox® Plastic Lockers)

Section 12 36 61 – SIMULATED STONE COUNTERTOPS (Terreon® and Terreon®RE countertops and integral sinks)

Section 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES (Thermostatic mixing valves)

Section 22 42 16.01 – COMMERCIAL LAVATORIES AND FAUCETS (Express® and Frequency® Single and multi-station lavatories)

Section 22 42 16.02 – COMMERCIAL LAVATORIES AND FAUCETS (Advocate® lavatories)

Section 22 42 16.03 – COMMERCIAL LAVATORIES AND FAUCETS (Verge™ lavatories)

Section 22 42 16.04 – COMMERCIAL LAVATORIES AND FAUCETS (OmniDecks™ lavatories)

Section 22 42 16.11 – COMMERCIAL SINKS AND FAUCETS

Section 22 42 23 – COMMERCIAL SHOWERS AND SHOWER VALVES

Section 22 42 33 – WASHFOUNTAINS (Sentry™, BradMate™, and Classic washfountains)

Section 22 43 00 – HEALTHCARE PLUMBING FIXTURES (Patient care lavatory units)

Section 22 45 00 – EMERGENCY PLUMBING FIXTURES (Halo™ Emergency eyewash fixtures and showers)

Section 22 46 00 – SECURITY PLUMBING FIXTURES

Contact Bradley Corporation, Menomonee Falls, WI 53051; Phone: 800-BRADLEY ((800) 272-3539) Fax: (262) 251-5817, or visit the Bradley web site www.bradleycorp.com.

Bradley Corporation is an AIA/CES registered provider currently offering numerous programs earning one (1) HS&W Learning Unit each.

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SECTION 12 36 61
SIMULATED STONE COUNTERTOPS [AND SINKS]

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Solid-surface-material countertops [and integral sinks].
- B. Related Sections:

Specifier: If retaining this optional Related Sections Paragraph, edit list below to correspond to Project requirements. Note that sections referenced directly from the Section text are not duplicated here.

- 1. Section 064110 "Architectural Cabinets" for millwork supporting countertops.
- 2. Section 055000 "Metal Fabrications" for metal countertop supports.
- 3. Section 061000 "Rough Carpentry" for wood countertop supports.
- 4. Section 123000 "Manufactured Casework" for manufactured casework supporting countertops.
- 5. Division 22 Section "Residential Plumbing Fixtures" for [sinks] [and] [plumbing fittings].
- 6. Division 22 Section "Domestic Water Piping Specialties" for thermostatic mixing valves.
- 7. Division 22 Section "Commercial Lavatories and Faucets" for single- and multiple-station lavatory systems.
- 8. Division 22 Section "Commercial Lavatory Decks and Faucets" for single- and multiple-station lavatory decks.
- 9. Division 22 Section "Healthcare Plumbing Fixtures" for healthcare lavatories.
- 10. Division 22 Section "Emergency Plumbing Fixtures" for emergency fixtures.
- 11. Division 22 Section "Security Plumbing Fixtures" for security lavatories.

1.2 REFERENCES:

Specifier: If retaining this optional REFERENCES article, edit list below to correspond to references that remain in Section after editing.

- A. American National Standards Institute (ANSI):
 - 1. ANSI Z 124.3 - Plastic Lavatories
 - 2. ANSI Z 124.6 - Plastic Sinks
 - 3. ANSI/ICPA SS-1-2001 - Performance Standard for Solid-surface-materials
- B. ASTM International (ASTM):
 - 1. ASTM C 170 - Standard Test Method for Compressive Strength of Dimension Stone
 - 2. ASTM D 570 - Standard Test Method for Water Absorption of Plastics
 - 3. ASTM D 785 - Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials
 - 4. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

5. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials

C. Canadian Standards Association (CSA):

1. CSA B125 - (See ASME A112.18.1 - Plumbing Fixture Fittings)

GREENGUARD Environment Institute is an ANSI Authorized Standards Developer that oversees the GREENGUARD certification program. GEI establishes acceptable indoor air standards for indoor products, environments, and buildings.

D. GREENGUARD Environmental Institute (GEI):

1. GREENGUARD listed and certified low emitting products

E. International Association of Plumbing and Mechanical Officials (IAPMO):

1. Universal Plumbing Code (cUPC both U.S. and Canada)

F. International Code Council (ICC):

1. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities

G. State of Texas:

1. Texas Accessibility Standards (TAS)

H. Underwriters Laboratories, Inc. (UL):

1. UL 723 - Test For Surface Burning Characteristics of Building Materials

I. United States Green Building Council (USGBC):

1. LEED Green Building Rating System (LEED)

J. US Federal Government:

1. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)

1.3 ACTION SUBMITTALS

A. Product Data: Manufacturer's data sheets, installation instructions, and maintenance recommendations.

B. Product Test Reports: Indicating compliance of products with requirements, from a qualified independent testing agency, when requested by Architect.

C. Shop Drawings: Provide mounting and support requirements, and rough-in and finished installation dimensions. Indicated compliance with accessibility requirements where applicable.

D. LEED Submittals:

Bradley's optional TerreonRE solid-surface-material contains 25 percent postconsumer recycled content.

1. Credit MR 4 Recycled Content: Product data indicating the following:
 - a. Material costs for each product having recycled content.
 - b. Percentages by weight of post-consumer and pre-consumer recycled content for each item.
 - c. Total weight of products provided.
- E. Shop Drawings: For countertops and integral sinks. Show materials, finishes, edge and backsplash profiles, methods of joining, and locations of cutouts for other plumbing fixtures and accessories.
- F. Samples for Initial Selection: For each type of material exposed to view.

Delete "Samples for Initial Selection" Paragraph above if colors and other characteristics are preselected and specified or scheduled. Retain paragraph below with or without paragraph above. For larger projects, consider retaining second subparagraph below to verify profiles of fabricated components.

- G. Samples for Verification: For the following products:
 1. Countertop material, in manufacturer's standard size.
 2. One full-size solid-surface-material countertop, with front edge[and backsplash], **8 by 10 inches (200 by 250 mm)**, of construction and in configuration specified, when requested by Architect.

1.4 INFORMATION SUBMITTALS

- A. Qualifications: For fabricator.
- B. Sample warranty.
- C. Manufacturer's Certificates.

1.5 MAINTENANCE SUBMITTALS

- A. Furnish indicated spare parts that are packaged with identifying labels listing associated products.
- B. Operation, maintenance and cleaning data.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Approved manufacturer listed in this section, with minimum [5] years experience in the manufacture of solid-surface-material and integral sinks. Manufacturers seeking approval must submit the following:
 1. Product data, including test data from qualified independent testing agency indicating compliance with requirements.
 2. Samples of each component of product specified.
 3. List of successful installations of similar products available for evaluation by Architect.
 4. Submit substitution request not less than 15 days prior to bid date.

- B. Source Limitations: Obtain solid-surface-material [including undermount sinks] through one source from a single approved manufacturer.
- C. Fabricator Qualifications: Experienced fabricator approved by solid-surface-material manufacturer and experienced in fabrication and installation of components similar to those required for Project.
- D. Installer Qualifications: Fabricator of components.

Specifier: When installed with proper profile and mounting heights, Bradley's Terreon countertops and integral sinks will meet requirements of ADA, ICC A117.1, and Texas Accessibility Standards.

- E. Accessibility Requirements: Comply with applicable requirements of ADA/ABA and with requirements of authorities having jurisdiction.

Specifier: Bradley's Terreon and TerreonRE materials exceed LEED for Schools IEQ requirements as certified by GREENGUARD.

- F. Indoor Environmental Quality Certification: Provide certificate indicated that lavatory deck materials have been certified under the following programs, or a comparable certification acceptable to Owner:
 - 1. GREENGUARD Indoor Air Quality Certified.
 - 2. GREENGUARD Certified for Children and Schools.

1.7 COORDINATION

- A. Field Measurements: Verify locations of countertops and adjacent walls prior to fabrication.
- B. Coordinate locations of utilities that will penetrate countertops or backsplashes.

1.8 WARRANTY

- A. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace simulated stone countertops that fail in materials or workmanship.
 - 1. Solid-surface-material: 10 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: Subject to requirements, provide products of Bradley Corporation, Menomonee Falls, WI 53051, (800) 272-3539; Email info@BradleyCorp.com; Website www.bradleycorp.com.
 - 1. Provide basis of design products [, or comparable products approved by Architect prior to bid].

Specifier: **Bradley Terreon and TerreonRE Countertops** offer the designer integrated countertop and vanity top installations in a variety of colors. Countertops fabricated using Bradley Terreon and TerreonRE sheet stock with Bradley integral basis can be fabricated by manufacturer-approved solid

surface fabricators in ADA configurations, are formed from GREENGUARD-certified materials, and may incorporate recycled materials.

2.2 SOLID-SURFACE-MATERIAL COUNTERTOPS

- A. Configuration: Provide [ADA/ABA compliant] countertops with flat deck [and with integral sinks,] with the following configuration:

Specifier: Edit fabrication options below to suit Project, or delete if detailed on Drawings.

1. Countertops: **1/2-inch- (12.7-mm-)** thick, solid-surface-material [with front edge built up with matching material].
 - a. Front: [Straight, slightly eased at top with apron, **1 inch (25 mm) to 10 inches (254 mm)** high] [Beveled with apron, **1 inch (25 mm) to 10 inches (254 mm)** high] [Radius edge with apron, **1 inch (25 mm) to 10 inches (254 mm)** high with **3/8-inch (9.5-mm)** radius].
 2. Backsplash: **1/2-inch- (12.7-mm-)** thick, solid-surface-material, [straight, slightly eased at corner] [beveled] [radius edge with **3/8-inch (9.5-mm)** radius].
 3. Endsplash: **1/2-inch- (12.7-mm-)** thick, solid-surface-material, [matching backsplash].
 4. Integral Sink: In size and shape indicated.
 5. Mounting: [Stainless steel mounting brackets] [Wall cleats specified in another Section] [Casework specified in another Section].
 6. Unit Size: As indicated on Drawings.
 7. Countertop Colors: [As scheduled or indicated on Drawings] [As selected from manufacturer's full range].
- B. Fabrication: Fabricate tops in one piece with shop-applied edges unless otherwise indicated. Comply with solid-surface-material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.
1. [Fabricate with loose backsplashes for field assembly] [Fabricate with integral backsplashes].
 2. Install integral sink bowls in countertops in the shop.

2.3 INTEGRAL SINKS

- A. Integral Sinks, General: Molded solid-surface-material in size and shape indicated, configured for undermount adhesive attachment to solid-surface-material countertops. Comply with ISSFA-2 and ANSI Z124.3, Type 5 or Type 6, without a pre-coated finish, IGC 156, CSA B45 Series, and ASME A112.18/CSA B125.1.

Specifier: Verify whether sink water supply includes tempered water prior to selecting color. Bradley's full color line is available for sinks plumbed with tempered water; a limited color selection applies to sinks with hot or cold water supplies.

1. Sink Colors: [As scheduled or indicated on Drawings] [As selected from manufacturer's full range].

Specifier: Retain Bradley basin type(s) required for Project from five paragraphs below. Flat-bottomed multipurpose basins are especially suitable for locations where items will be set in the sink for cleaning as

well as handwashing; handwashing-only sinks have sloped bottoms. All Bradley basins are ADA complaint when integrated with a counter mounted at the proper height and proper knee and toe clearance are accounted for.

- B. Multipurpose Sink, Oval: 22 by 14 by 5 inches deep (559 by 346 by 127 mm), with flat bottom.
 - 1. Basis of Design Product: **Bradley, HS-TO1 Terreon Multipurpose Basins.**
- C. Multipurpose Sink, Rectangular: 22 by 16 by 5 inches deep (559 by 406 by 127 mm deep), with flat bottom.
 - 1. Basis of Design Product: **Bradley, HS-TR1 Terreon Multipurpose Basins.**
- D. Multipurpose Sink, Square: 14 by 14 by 5 inches deep (356 by 356 by 127 mm deep), with flat bottom.
 - 1. Basis of Design Product: **Bradley, HS-TS1 Terreon Multipurpose Basins.**
- E. Handwashing Sink, Oval: 16 by 13 by 5-1/4 inches deep (406 by 330 by 175 mm deep), with molded integral overflow.
 - 1. Basis of Design Product: **Bradley, SL-TO1 Handwashing Basins.**
- F. Handwashing Sink, Rectangular: 17 by 14 by 5-3/4 inches deep (432 by 356 by 146 mm deep), with molded integral overflow.
 - 1. Basis of Design Product: **Bradley, SL-TR1 Handwashing Basins.**

2.4 MATERIALS

Specifier: Below describes **Bradley Terreon**, a premium densified solid surface vandal-resistant material, noted for its resistance to chemicals, stains, burns and impacts. Surface damage can be easily repaired with everyday cleansers or fine grit abrasives.

Option in Paragraph below describes Bradley's unique **TerreonRE** incorporating recycled content in solid-surface-material.

- A. Solid-surface-material: Fabricate countertops and plumbing fixtures from densified thermoset acrylic modified polyester resin certified by independent testing agency to comply with ANSI/ICPA-SS-1, ANSI Z124.3, and ANSI Z124.6, [with bio-based resin and minimum 25 percent preconsumer recycled content].
 - 1. Basis of Design Product: **Bradley, [Terreon] [TerreonRE].**
 - 2. Liquid Absorption: 0.025 percent in 24 hours, per ASTM D 570.
 - 3. Tensile Strength: **5000 psi (34 MPa)**, minimum, per ASTM D 638.
 - 4. Thermal Expansion: 2.30, per ASTM D 696.
 - 5. Hardness: 55-60, per ASTM D 785.
 - 6. Fire Resistance: Class 1, per ASTM E 84.
- B. Adhesives: Manufacturer's recommended urea formaldehyde-free adhesive, color matched to countertop finish.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine conditions and verify opening measurements prior to commencing installation. Proceed with installation once conditions meet requirements.

3.2 INSTALLATION

- A. Support and fasten countertops in accordance with manufacturer's written recommendations and approved shop drawings.
- B. Install countertops level to a tolerance of **1/8 inch in 8 feet (3 mm in 2.4 m)**.
- C. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

Specifier: Retain paragraph below if specifying field-installed backsplashes or endsplashes.

- D. Install [backsplashes] [and] [endsplashes] to comply with manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

Specifier: Retain one or more of following coordination Paragraphs to correspond to Project requirements.

- E. Install faucets, water supplies, and waste connections in accordance with requirements of applicable Division 22 plumbing section.

Specifier: Retain paragraph below if required for Project.

- F. Install deck-mounted soap dispenser in accordance with Section 102800 "Toilet Accessories."
- G. Seal joints between countertops and adjacent surfaces with joint sealant specified in Section 079200 "Joint Sealants."

3.3 CLEANING AND PROTECTION

- A. Repair or replace defective work, including damaged components.
- B. Clean unit surfaces, test fixtures, and leave in ready-to-use condition.
- C. Turn over maintenance materials and instructions to Owner.
- D. Protect units with water-resistant temporary covering. Do not allow temporary use of plumbing fixtures unless approved in writing by Architect. Remove protection at Substantial Completion and dispose.

END OF SECTION