

SECTION 09 30 00 – USG DUROCK™ BRAND SHOWER SYSTEM & USG DUROCK™ BRAND WATERPROOFING MEMBRANE AND BAND

Product Summary:

- System accommodates optional curb.
- Wide variety of drain grates.
- Optional ramp for ADA compliant access.
- Reference installation guide for all required installation steps for a waterproof assembly.
- Reference USG literature CB655 & CB691 for more information
- For more information, contact **Amy Klawitter at 312-436-6437** or 800.874.4968 for technical questions.

Note to Specification Writer:

This document is not intended to function as a standalone specification. It is intended to assist the specification writer in inserting the proper language into the following recommended specification sections:

- 09 30 13 Ceramic Tiling
- 09 30 23 Glass Tiling (verify compatibility with shower system prior to specifying)
- 09 30 33 Stone Tiling
- 10 28 19 Tub and Shower Doors
- Architect or Specification Writer should include specifications for a glass shower door, if no door is specified, be sure to have the shower floor extend at least 12” (300) beyond where the shower curtain is located.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes
 1. Foam Tray
 2. Waterproofing
 3. Linear Drain
 4. Square Drain
 5. Accessories

1.2 RELATED SECTIONS

- A. Section 09 30 13 Ceramic Tiling
- B. Section 09 30 21 Glass Tiling
- C. Section 09 30 33 Stone Tiling

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 1. Coordinate installation of openings through floor slabs, partition locations, adjacent wall substrates, waterproofing, drain assembly, drain pipes, shower door (s) and finish surfaces.

1.4 REFERENCES

- A. 2015 International Plumbing Code (IPC)
- B. 2015 Uniform Plumbing Code (UPC)
- C. 2015 National Plumbing Code of Canada (NPC)
- D. Section 09 30 00 - Tiling.
- E. ANSI A118.10-2014 Load bearing waterproof membranes for thin set ceramic tile and dimension stone installations.
- F. ASME A112.6.3-2016 Floor and Trench Drains.
- G. ASME A112.18.2/CSA B125.2-2015 Plumbing Waste Fittings.
- H. CSA B79-2008(R13) Commercial and Residential drains and cleanouts.
- I. IAPMO ICG 195-2013a Shower drains with integrated bonding flanges.
- J. IAPMP PS 106-2015 Tileable Shower Receptors and Shower kits.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of shower system assembly. Indicate component materials, dimensions and application details including:
 - 1. Waterproofing membrane, waterproofing accessories, curbs or transitions, sealants and accessories.
 - 2. Preparation and treatment requirements for installation and bonding waterproofing to adjacent substrates, and finish material compatibility information.
 - 3. Include standard drawings illustrating manufacturer's written installation and finishing instructions applicable to Project, including details for assembly, coordinate with architect for finish material joints, accessories and plumbing fixture requirements.
 - a. Illustrate shower assembly and how they interface with other work that forms part of the shower system.
 - b. Where standard drawings do not address Project conditions, provide shop drawings prepared for Project to illustrate proposed construction.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- C. Store materials in a dry, warm, ventilated weather tight location.

1.7 INSTALLATION REQUIREMENTS

- A. Floor must be level, if existing floor substrate is out of level, use a self-leveling underlayment prior to installation. Note poured underlayment must be fully cured for installation to proceed.
 - 1. Concrete must be fully cured.
 - 2. Install per manufacturer's recommendations. Coordinate finish tile and pre-sloped shower floor dimensions prior to installation.
 - 3. Adjacent vertical surfaces shall be code-approved wall and floor substrate suitable for wet areas, board products contingent to system warranty are:



- a. USG Durock® Brand Cement Board with EdgeGuard™ with USG Durock™ Brand Waterproofing Membrane.
- b. USG Fiberock® Brand Tile Backerboard panels with USG Durock™ Brand Waterproofing Membrane.
- c. USG Durock™ Brand Glass-Mat Tile Backerboard.
- d. USG Durock™ Brand UltraLight Foam Tile Backerboard.

1.8 COORDINATION

- A. Coordinate Work with other operations, including framing locations with plumbing and other relevant trades. Coordinate installation of finish floor and adjacent wall finish materials per the architectural drawings and to avoid damage to installed materials.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use.
- B. Store USG Durock™ Brand Shower System and adjacent vertical substrates on elevated platforms, under cover, and in a dry location.
- C. Store liquid materials in unopened containers and protected from freezing.

1.10 FIELD CONDITIONS

- A. Environmental Limitations: Do not install setting mortar and finish materials until construction in spaces is complete and ambient temperature and humidity conditions are maintained at 40 degrees F.
- B. WARRANTY
- C. Reference product warranty at usg.com, literature piece CB653 for limitations regarding the 10 year product warranty. Installation should follow manufacturer's written instructions & recommendations and not to invalidate the above referenced warranty.

PART 2 - PRODUCTS

2.1 PREFABRICATED POINT DRAIN SHOWER TRAY UNDERLAYMENT

- A. Pre-sloped high density EPS shower tray underlayment **<INSERT DESIGNATION HERE>**:
 1. Basis of Design: Subject to compliance with project requirements, the design is based on the following: USG Corporation, LLC, "USG Durock™ Brand Shower System".
 2. Classification: High Density EPS tray with integrated slope: IAPMO IGC 195-2013a and ASME A112.18.2-2011/CSA B125.2-11 and ANSI A118.10-2008.
 - a. Thickness: [min depth 3/4" at drain, tray slopes up from there].
 - b. Square Drain Shower Floor Dimensions: **[32" x 60" (812 x 1524)] [48" x 48" (1219 x 1219)] [72" x 72" (1829 x 1829)]** [As indicated].
 - c. Drain Location: **[off center] [center]**

- d. **Point Drain Size:** [4" (102) square] [5" (127) square] [As indicated].
- 3. Installation Requirements:
 - a. Install per manufacturer's recommendations.

2.2 PREFABRICATED LINEAR DRAIN SHOWER FLOOR UNDERLAYMENT

- A. Pre-sloped high density EPS shower floor underlayment <INSERT DESIGNATION HERE>:
 - 1. Basis of Design: Subject to compliance with project requirements, the design is based on the following: USG Corporation, LLC, "USG Durock™ Brand Shower System".
 - 2. Classification: High Density EPS floor with integrated slope: IAPMO IGC 195-2013a and ASME A112.18.2-2011/CSA B125.2-11 and ANSI A118.10-2008.
 - a. Thickness: [min depth 3/4" at drain, shower floor slopes up from there].
 - b. Linear Drain Shower Floor Dimensions: [36" x 60" (914 x 1524)] [48" x 60" (1219 x 1524)] [66" x 60" (1676 x 1524)] [As indicated].
 - c. Drain Location: off center.
 - d. **Drain Dimensions:** [24" x 2 1/2" (610 x 65)] [30" x 2 1/2" (762 x 65)] [36" x 2 1/2" (914 x 65)] [42" x 2 1/2" (1067 x 65)] [48" x 2 1/2" (1219 x 65)] [60" x 2 1/2" (1524 x 65)] [As indicated].
 - 3. Installation Requirements:
 - a. Install per manufacturer's recommendations.

2.3 SHOWER FLOOR SYSTEM ACCESSORIES

- A. System Accessories:
 - 1. USG Durock™ Brand Shower System Curb: 5" [125] high curb
 - 2. USG Durock™ Brand Shower System Bench: EPS Shower bench [Rectangular 34" x 18" x 22"] [Square 18" x 18" x 22"] [Quarter round 18" x 18" x 22"].
 - 3. USG Durock™ Brand Shower System Pre-Flanged Niche, fabricated with ABS Plastic: [Square 13 3/4" x 13 3/4" x 3 5/8"] [Rectangular 13 3/4" x 22" x 3 5/8"].

2.4 WATERPROOFING SYSTEMS

- A. Composite waterproofing membrane <INSERT MATERIAL DESIGNATION HERE> that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.
 - 1. Basis of Design: Subject to compliance with project requirements, the design is based on the following: USG Corporation, LLC, "USG Durock™ Brand Waterproofing Membrane".
 - 2. Classification: Composite cross laminated HDPE waterproof membrane and vapor retarder.
 - a. Thickness: 12 mil.
 - b. Roll Length: [25 feet (7.5 m)] [50 feet (15 m)] [100 feet (30.5 m)].
 - c. Roll Width: 36 inches (900 mm).
 - d. Perm Rating (per ASTM E96): less than 0.075.
 - 3. Wall and Floor application: Reference installation literature for USG Durock™ Brand Shower System for complete wall and flooring installation requirements.
 - a. Apply tile-setting mortar (as specified in ANSI A118.1, A118.4, A118.11 or A118.15) to shower floor using 3/16 inch x 3/16 inch (5 mm x 5 mm) V-notched trowel or 1/8 inch x 1/8 inch (3 mm x 3 mm) square or U-notched trowel.



- b. Embed USG Durock™ Brand Waterproofing Membrane into the mortar using a finishing trowel or drywall taping knife to remove air pockets and to ensure proper installation.
- c. Overlap all adjoining sections of the membrane by a minimum of 2 inches (51 mm) using tile-setting mortar (as specified in ANSI A118.1, A118.4, A118.11 or A118.15). Alternatively, adjoining sections of USG Durock™ Brand Waterproofing Membrane can be abutted and then seamed with 5" (13 cm) wide USG Durock™ Brand Waterproofing Membrane Band.

B. Waterproofing Accessories

1. Prefabricated waterproof membrane corners
 - a. USG Durock™ Brand Shower System Waterproof Inside Corner 6" x 7"
 - b. USG Durock™ Brand Shower System Waterproof Outside Corner 6" x 7"
2. USG Durock™ Brand Waterproofing Membrane Band 5" x 50"
3. USG Durock™ Brand Shower System Waterproof Pipe Seal 8"
4. USG Durock™ Brand Shower System Waterproof Mixing Valve Seal 10"

2.5 SETTING MATERIALS

1. Use tile-setting mortar (as specified in ANSI A118.1, A118.4, A118.11 or A118.15) to set tiles.

2.6 DRAINS

A. USG Durock™ Brand Infinity Drain™ Linear Drain:

1. 304L Stainless Steel Channel: [24 inch] [30 inch] [36 inch] [42 inch] [48 inch] and [60 inch] [as indicated].
2. Drain Grate Pattern: [316L Stainless Steel Wedge Wire] [316L Stainless Steel Perforated] [316L Stainless Steel Tile Inset Frame] [as indicated].
3. Drain Grate Finish: [satin stainless steel] [polished stainless steel] [satin bronze] [oil rubbed bronze] [as indicated].
4. For proper drain installation and location, reference installation guide for more information.
5. Maximum flow rate for drain: **9.0 gpm (33 lpm)**.

B. USG Durock™ Brand Shower System (Square) Drain:

1. USG Durock™ Brand Shower System ABS Drain Bonding Flange
2. Drain Grate Pattern – USG Durock™ Brand Shower System Designer Series: [4 inch] [5 inch] [as indicated]. [Parallel] [Santa Fe] [Splash] [Whirl] [Lattice] [Surf] [as indicated].
3. Drain Grate Finish: [stainless steel] [polished stainless steel] [oil rubbed bronze] [as indicated].
4. Drain Grate Pattern – USG Durock™ Brand Shower System Professional Series: [4 inch] [5 inch] [as indicated].
5. Drain Grate Finish: [pewter] [polished gold] [antique copper] [oil rubbed bronze] [black chrome] [chrome] [brushed nickel] [polished nickel] [as indicated].
6. For proper drain installation and location, reference installation guide for more information.
7. Maximum flow rate for drain: **7.0 gpm (26 lpm)**.



PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where shower floor, stone and or tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
 - 1. Verify that substrates for setting tile are firm; dry; clean; free of coatings that are incompatible with tile-setting materials, including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.
 - 2. Verify that concrete substrates for tile floors installed with **[adhesives]** **[bonded mortar bed]** **[or]** **[thinset mortar]** comply with surface finish requirements in ANSI A108.01 for installations indicated.
 - a. Verify that surfaces that received a steel trowel finish have been mechanically scarified.
 - b. Verify that protrusions, bumps, and ridges have been removed by sanding or grinding.
 - 3. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed.
 - 4. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
 - 5. Verify that all plumbing connections for drains and supply valves/mixers are properly located.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with **[adhesives]** **[or]** **[thinset mortar]** with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.

3.3 INSTALLATION

- A. See corresponding USG product installation guides for complete installation instructions.

END OF SECTION 093000

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