

# WATERPROOFING MEMBRANES



## INNOVATIVE SOLUTIONS FOR CERAMIC AND STONE TILE

### BONDED WATERPROOF MEMBRANES AND VAPOR RETARDERS

Ceramic and stone tiles are durable, easy to maintain, and hygienic, representing ideal surface coverings in wet areas. However, since tiles and grout are not inherently waterproof, it is essential to protect the substrate from moisture penetration.

### Application and Function

**8.1 Schluter®-KERDI** is a pliable, sheet-applied, bonded waterproof membrane and vapor retarder with limited crack-bridging capabilities. It is made of soft polyethylene, which is covered on both sides with a special fleece webbing to anchor the membrane in the thin-set mortar.

KERDI was developed as a waterproofing membrane to be used in conjunction with ceramic and stone tile coverings. Tiles can be installed directly on KERDI using the thin-bed method. Other trowel-applied covering materials, such as plaster, can also be used.

**Schluter®-KERDI-DS** is a bonded waterproofing membrane and vapor retarder with very low water vapor permeance for use in continuous use steam rooms and similar applications.

Various KERDI waterproofing accessories are available. Use KERDI-BAND, in widths of 5" (12.5 cm), 7-1/4" (18.5 cm), or 10" (25 cm) to seal butt joints or corner joints. KERDI-FLEX, in 5" (12.5 cm) or 10" (25 cm) widths, is used to seal expansion joints or flexible edge joints.

Preformed, seamless corners include the following. KERDI-KERECK-F are used to seal 90° inside and outside corners. KERDI-



**8.1 Schluter®-KERDI**  
**8.1 Schluter®-KERDI-DS**

KERS-B are used to seal 135° corners at triangular shower benches and neo-angle shower curbs. KERDI-KERS are used to seal floor/wall/shower base connections in curbless shower applications where the KERDI-LINE linear drain is installed adjacent to the wall.

KERDI-SEAL-PS/-MV are prefabricated sections of KERDI with overmolded rubber gaskets that are used to seal pipe protrusions through the KERDI waterproofing membrane (e.g., at showerheads and tub spouts) and protect moisture-sensitive backing panels at the mixing valve.



### Material Properties and Areas of Application

KERDI features a polyethylene core with a polypropylene fleece laminated to both sides. The material is physiologically safe and does not require special disposal. KERDI is 8-mil thick and has a water vapor permeance of 0.90 perms, when tested according to ASTM E96, using Procedure E at 90% relative humidity. KERDI-DS is 20-mil thick and features additives to produce a water vapor permeance of 0.18 perms.



Schluter®-KERDI-DRAIN assembly with Schluter®-KERDI waterproofing membrane.

KERDI and KERDI-DS are waterproof and resistant to most chemicals commonly encountered in tiled environments. They are resistant to aging and will not rot. KERDI and KERDI-DS are highly resistant to saline solutions, acid and alkaline solutions, many organic solvents, alcohols, and oils. Information regarding their resistance to specific substances can be provided if concentration, temperature, and duration of exposure are known. For acid-resistant coverings, use an epoxy adhesive to set and grout the tile.

KERDI and KERDI-DS are used on wall and floor surfaces where protection against the penetration of moisture or other harmful substances is necessary. KERDI is suitable for use in showers, intermittent use steam showers, tub surrounds, and areas surrounding swimming pools. Industrial applications include the food industry, breweries, and dairies. KERDI-DS is suitable for use in continuous use steam rooms and other applications with similar vapor management requirements. Before placing the membranes, verify that the substrate is clean, even, and load bearing. Surfaces that inhibit proper adhesion must be removed or appropriately treated.

KERDI and KERDI-DS meet the American National Standard for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations (ANSI A118.10). The membranes are listed by cUPC® and evaluated by ICC-ES (Report Nos. ESR-2467 and PMG-1204). For copies of these documents, please contact Schluter®-Systems at 800- 472-4588 (USA) or 800-667-8746 (Canada) or by e-mail at info@schluter.com. Links to the documents can also be accessed at [www.schluter.com](http://www.schluter.com).

KERDI and KERDI-DS have been evaluated according to the "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1" for California Specification 01350 and found to comply with the VOC requirements. California Specification 01350 is referenced by various green building standards and rating systems.

### Installation

1. The substrate must be clean, even, and load bearing. The thin-set mortar used for bonding KERDI must be appropriate for the substrate, and it must penetrate and engage the KERDI fleece. Generally, an unmodified thin-set mortar is used. Cut KERDI to size prior to application.
2. Apply thin-set mortar to the substrate using a 1/4" x 3/16" (6 x 5 mm) V-notched trowel or the KERDI-TROWEL, which features a 1/8" x 1/8" (3 x 3 mm) square-notched design (Note the open time of the mortar). Press KERDI fully into the bond coat. Work the KERDI into the mortar by applying pressure to the membrane with the flat side of the trowel (held at an angle) in smooth, diagonal sweeps. Air bubbles must be avoided.
3. Seams can be constructed by overlapping the edges of the KERDI 2" (5 cm) using unmodified thin-set mortar, or by abutting the edges and covering the joint with KERDI-BAND using an unmodified thin-set mortar.
4. For inside and outside corners, adhere pre-formed KERDI-KERECK-F corners. For floor/wall connections, use KERDI-BAND. Install KERDI-SEAL-PS pipe seals at showerhead, body sprays, etc. and KERDI-SEAL-MV at the mixing valve. As an alternative to KERDI-SEAL-PS/-MV, KERDI-FIX or other

suitable sealant can be used to seal pipe protrusions and protect moisture-sensitive solid backing panels at the mixing valve.

5. Connections to fixed building elements can be achieved by using KERDI, KERDI-BAND, or KERDI-FLEX in conjunction with KERDI-FIX, suitable trowel-applied waterproofing materials (such as urethane or similar), that require atmospheric moisture to cure, or other suitable sealing compounds.
6. KERDI shall be separated at existing expansion, structural, and flexible edge joints. Cover the joints with KERDI-FLEX. To allow for greater movement, the center section of the KERDI-FLEX can be tucked into the cavity of the expansion joint prior to bonding.
7. Once the entire membrane—with seams, corners, and connections—has been completely bonded, and therefore waterproofed, the covering may be applied.

### Note: Water testing of the assembly

Prior to setting tile, wait 24 hours to allow for final set of the mortar before testing to ensure waterproof performance of the assembly at seams and connections.

8. For tile installations using the thin-bed method, apply unmodified thin-set mortar directly to the exposed KERDI surface and install the tiles, ensuring full coverage. For acid-resistant coverings, use an epoxy adhesive to set and grout the tile.

### Connection to Schluter®-KERDI-DRAIN

KERDI-DRAIN is a floor drain specifically designed to allow connections to KERDI or other bonded waterproof membranes, typically in shower applications. When adhering KERDI to KERDI-DRAIN, the membrane must be held back to the step in the fleeced bonding flange. Apply unmodified thin-set mortar to the bonding flange using a 1/4" x 3/16" (6 x 5 mm) V-notched trowel or the KERDI-TROWEL, which features a 1/8" x 1/8" (3 x 3 mm) square-notched design. Firmly press KERDI into the mortar with the flat side of the trowel to ensure 100% coverage and a watertight seal. When using the stainless steel KERDI-DRAIN bonding flange, KERDI is adhered to the flange with KERDI-FIX. The flange must be clean and free of grease or other contaminants prior to KERDI-FIX application.



Relevant industry standard guidelines for floor drains with integrated bonding flange include method B422 in the Tile Council of North America’s (TCNA) Handbook for Ceramic, Glass and Stone Tile Installation and Method 326DR in the Terrazzo, Tile and Marble Association of Canada (TTMAC) Specification Guide 09300 Tile Installation Manual. Please contact Schluter®-Systems for the Schluter®-Shower System installation video and Floor Drains Technical Data Sheet.

**Notes:**

- 1) For complete installation guidelines and warranty criteria for showers, steam showers, steam rooms, and bathtub

surrounds, please contact Schluter®-Systems for a copy of the Schluter®-Shower System Installation Handbook (USA: 800-472-4588; Canada: 800-667-8746), or download it from our website at [www.schluter.com](http://www.schluter.com).

- 2) Various configurations of KERDI-DRAIN and KERDI-LINE are listed by ICC-ES (Report No. PMG-1204), UPC® (IGC 195), CSA (B79), and NSF (as a special

engineered product meeting applicable requirements of ASME A112.6.3).. For copies of the above listings, please contact Schluter®-Systems at 800-472-4588 (USA) or 800-667-8746 (Canada) or by e-mail at [info@schluter.com](mailto:info@schluter.com). Links to the above listings can also be accessed at [www.schluter.com](http://www.schluter.com).

**Product Item Numbers**



**8.1 Schluter®-KERDI** Waterproofing membrane

Item No.	Width	Length	Area	Thickness
KERDI 200/5M	3' 3" – 1 m	16' 5" – 5 m	54 ft <sup>2</sup> – 5 m <sup>2</sup>	8 mil
KERDI 200/10M	3' 3" – 1 m	33' – 10 m	108 ft <sup>2</sup> – 10 m <sup>2</sup>	8 mil
KERDI 200/20M	3' 3" – 1 m	65' 7" – 20 m	215 ft <sup>2</sup> – 20 m <sup>2</sup>	8 mil
KERDI 200	3' 3" – 1 m	98' 5" – 30 m	323 ft <sup>2</sup> – 30 m <sup>2</sup>	8 mil

**8.1 Schluter®-KERDI-DS** Waterproofing membrane

Item No.	Width	Length	Area	Thickness
KERDI-DS	3' 3" – 1 m	98' 5" – 30 m	323 ft <sup>2</sup> – 30 m <sup>2</sup>	20 mil



**8.1 Schluter®-KERDI-BAND** Waterproofing strip

Item No.	Width	Length	Thickness
KEBA 100/125/5M	5" – 12.5 cm	16' 5" – 5 m	4 mil
KEBA 100/125/10M	5" – 12.5 cm	33' – 10 m	4 mil
KEBA 100/185/5M	7-1/4" – 18.5 cm	16' 5" – 5 m	4 mil
KEBA 100/250/5M	10" – 25 cm	16' 5" – 5 m	4 mil
KEBA 100/125	5" – 12.5 cm	98' 5" – 30 m	4 mil
KEBA 100/185	7-1/4" – 18.5 cm	98' 5" – 30 m	4 mil
KEBA 100/250	10" – 25 cm	98' 5" – 30 m	4 mil



**8.1 Schluter®-KERDI-FLEX** Waterproofing strip for use above movement joints

Item No.	Width	Length	Thickness
FLEX 125/5M	5" – 12.5 cm	16' 5" – 5 m	12 mil
FLEX 250/5M	10" – 25 cm	16' 5" – 5 m	12 mil
FLEX 125/30	5" – 12.5 cm	98' 5" – 30 m	12 mil
FLEX 250/30	10" – 25 cm	98' 5" – 30 m	12 mil



8.1 Schluter®-KERDI-KERECK-F		Preformed corner	
Item No.	Thickness	Packaging	
KERECK / FI 2	4 mil	2 inside corners	
KERECK / FI 10	4 mil	10 inside corners	
KERECK / FA 2	4 mil	2 outside corners	
KERECK / FA 10	4 mil	10 outside corners	



8.1 Schluter®-KERDI-KERS-B		Preformed corner	
Item No.	Thickness	Description	Packaging
KERECK135FI2	4 mil	Inside corner, 135°	2 units
KERECK135FI10	4 mil	Inside corner, 135°	10 units
KERSB135KLR	4 mil	Bench corners	1 right and 1 left
KERSB135K5LR	4 mil	Bench corners	5 right and 5 left
KERSB135K	4 mil	Bench/ neo-angle corner kit	1 right and 1 left bench corner, and 2 135° inside corners



8.1 Schluter®-KERDI-KERS		Preformed corner	
Item No.	Thickness	Packaging	
KERS 20 L	4 mil	Left inside corner - 20 mm	
KERS 28 L	4 mil	Left inside corner - 28 mm	
KERS 20 R	4 mil	Right inside corner - 20 mm	
KERS 28 R	4 mil	Right inside corner - 28 mm	



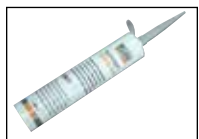
8.1 Schluter®-KERDI-SEAL-PS		Pipe seal with over-moulded rubber gasket	
Item No.	Pipe nipple opening diam.	Thickness	Packaging
KMS 185/12	1/2" - 12.5 mm	4 mil	1 unit
KMS 185/20	3/4" - 20 mm	4 mil	1 unit
KMS 10185/12	1/2" - 12.5 mm	4 mil	10 units
KMS 10185/20	3/4" - 20 mm	4 mil	10 units



8.1 Schluter®-KERDI-SEAL-MV		Mixing valve seal with over-moulded rubber gasket	
Item No.	Mixing valve opening diam.	Thickness	Packaging
KMSMV 235/114	4-1/2" - 114 mm	4 mil	1 unit
KMSMV 10235/114	4-1/2" - 114 mm	4 mil	10 units



Schluter®-KERDI-TROWEL		Trowel	
Item No.	Notch size	Packaging	
TRL-KER6	1/8" x 1/8" - 3 x 3 mm	6 units	
TRL-KER	1/8" x 1/8" - 3 x 3 mm	1 unit	



Schluter®-KERDI-FIX		Adhesive/sealant	
Item No.	Cartridge Volume		
KERDIFIX + <i>color</i> *	9.81 oz - 290 ml		

**\*Color Codes**

BW Bright white
 G Grey

To complete the item number, add the *color* code (e.g., KERDIFIX / BW).



## Schluter®-KERDI and Schluter®-KERDI-DS 10-Year Limited Warranty

**COVERAGE AND CONDITIONS:** Subject to the conditions and limitations as stated hereinafter, **Schluter-Systems\*** warrants that **Schluter®-KERDI** or **Schluter®-KERDI-DS** (the "Product") will be free from manufacturing defects and will not rot, deteriorate or break down for a period of ten (10) years from the date of purchase only when the Product is used and installed in accordance with the terms and conditions of the Schluter®-Systems Waterproofing Membranes Technical Data Sheet and industry standard guidelines that are not in conflict with the Data Sheet in effect at the time of installation. Further, efflorescence is considered to be a natural occurrence with cementitious materials and is therefore not considered to be a defective condition and is not covered by this warranty. It is the responsibility of the owner/ builder/ installer to ensure the suitability of all building materials and all associated building materials for the owner's intended use. It is recommended that the owner consult with an experienced and professional installer.

**RESOLUTION:** If the Product fails to meet this warranty, then the owner's exclusive remedy and the sole obligation of Schluter-Systems, at its election, shall be to a) reinstall or replace the failed portion of the tile assembly or b) pay an amount not to exceed the original square foot cost of the installation of the tile assembly verified to be defective. Tile assembly is defined to include all Schluter®-KERDI or Schluter®-KERDI-DS materials, non-reusable tile surfaces, and the appropriate setting and grouting materials. Further, due to conditions beyond the control of Schluter-Systems (e.g., color and shade availability, discontinuation, normal wear and tear), Schluter-Systems cannot guarantee or warrant an exact match to the specific tile, stone, or other flooring materials used in the installation. In such events, substantially similar materials may be substituted.

**DISCLAIMER:** THERE ARE NO WARRANTIES BEYOND THIS EXPRESSED WARRANTY AS STATED ABOVE. ALL OTHER WARRANTIES, REPRESENTATIONS OR CONDITIONS, EXPRESSED OR IMPLIED, ARE DISCLAIMED AND EXCLUDED, INCLUDING WARRANTIES, REPRESENTATIONS OR CONDITIONS OF **MERCHANTABILITY** OR FITNESS FOR A PARTICULAR PURPOSE ARISING BY STATUTE OR OTHERWISE BY LAW OR FROM A COURSE OF DEALING OR USAGE OF TRADE. SCHLUTER-SYSTEMS EXCLUDES AND IN NO EVENT SHALL HAVE ANY LIABILITY FOR LOST PROFITS OR ANY OTHER INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OR OTHERWISE CONNECTED TO FAILURE OF THE PRODUCT OR TILE ASSEMBLY OF WHICH IT IS PART, NOR MISUSE OF THE PRODUCT OR TILE ASSEMBLY, REGARDLESS OF ANY STRICT LIABILITY, ACTIVE OR PASSIVE NEGLIGENCE OF SCHLUTER-SYSTEMS, AND REGARDLESS OF THE LEGAL THEORY (CONTRACT OR TORT OR EXTRA-CONTRACTUAL OR OTHER), NOR FROM ACTS OF WAR, TERRORISM, FAULTY AND NEGLIGENT PENETRATION OF THE SYSTEM, FIRES, EXPLOSIONS, ACTS OF GOD, INTENTIONAL ACTS OF DESTRUCTION OR ANY LOSSES DUE TO STRUCTURAL FAILURE OR OTHER CAUSES UNRELATED TO THE PRODUCT OR DELAYS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY EXPRESSED OR IMPLIED. THE REMEDIES CONTAINED HEREIN ARE THE ONLY REMEDIES AVAILABLE FOR BREACH OF THIS WARRANTY. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS; SOME STATES AND PROVINCES DO NOT ALLOW DISCLAIMERS OR OTHER RESTRICTIONS OF IMPLIED WARRANTIES, SO SOME OF THE ABOVE DISCLAIMERS MAY NOT APPLY TO YOU.

**TRANSFERABILITY:** This Limited Warranty extends ONLY to the original end user (defined as original intended owner and user of the property/unit in which the installation is incorporated - herein referred to as "Owner") and is not transferable or assignable, unless approved in writing by the Technical Director or an Officer of Schluter-Systems or otherwise prohibited by specific state or provincial law.

**MODIFICATIONS TO WARRANTY:** No changes or modification of any terms or conditions of this warranty are allowed unless authorized by written agreement and signed by the Technical Director or an Officer of Schluter-Systems.

**EFFECTIVE DATE:** This warranty shall supersede and replace any and all prior oral or written warranties, agreements, or other such representations made by or on behalf of Schluter-Systems relative to the Product or the application of the Product and shall apply to any installation occurring on or after January 1, 2013.

**CLAIMS ON THIS LIMITED WARRANTY:** To make a claim under this Limited Warranty, the Owner must provide Schluter-Systems with written notice within 30 days of any alleged defect in the Product covered by this Limited Warranty, together with date and proof of purchase of the Product, proof of the costs of the original installation and name and address of all installers, failing which this Limited Warranty shall be of no legal effect. Schluter-Systems reserves the right at its election and as a condition of this Limited Warranty to inspect the alleged failed and defective condition.

All U.S. Claims shall be sent to:

Schluter Systems L.P.  
Attn: Warranty Claims Dept.  
194 Pleasant Ridge Road  
Plattsburgh, NY 12901-5841

All Canadian Claims shall be sent to:

Schluter Systems (Canada), Inc.  
Attn: Warranty Claims Dept.  
21100 chemin Ste-Marie  
Ste-Anne-de-Bellevue, QC H9X 3Y8

\*For the purpose of this warranty **Schluter Systems, L.P.** shall provide the warranty for all products for end users located in the United States, and **Schluter Systems (Canada) Inc.** shall provide the warranty for all products for end users located in Canada. This warranty is limited to sales of the Product made in and intended for use in the United States and Canada.







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