

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 The gridlines, which are printed on the surface, are helpful for neat and quick cuts and installation.

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 thinbed 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-



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-DS

KERDI features a modified polyethylene (PEVA) core with non-woven polypropylene on both sides. The surface of the KERDI has gridlines consisting of 3/8" x 3/8"

(10 mm x 10 mm) squares printed on one side. KERDI-DS features a high-density polyethylene (HDPE) core with non-woven polyproplyene on 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 0.19 perms.

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 interior 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-S). 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.

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

- 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. 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.
- Seams can be constructed by overlapping the edges of the KERDI 2" (5 cm) using Schluter SET®, Schluter ALL-SET®, Schluter FAST-SET®, or unmodified thinset mortar, or by abutting the edges and covering the joint with KERDI-BAND using Schluter SET®, Schluter ALL-SET®, Schluter FAST-SET®, or 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.
- 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.
- 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 Shower Drains

KERDI-DRAIN and KERDI-LINE are specifically designed to allow connections to KERDI or other bonded waterproof membranes, typically in shower applications.

KERDI is sealed to the fleece-laminated KERDI-DRAIN bonding flange using SET, ALL-SET, FAST-SET, or unmodified thin-set mortar. KERDI-FIX is used to seal KERDI to the stainless steel KERDI-DRAIN bonding flange. The flange must be clean and free of grease or other contaminants prior to KERDI-FIX application. The KERDI waterproofing collar on KERDI-LINE is sealed to KERDI using SET, ALL-SET, FAST-SET, or unmodified thin-set mortar.

Relevant industry standard guidelines for shower drains with integrated bonding flange include methods B422, B422C, SR613 and SR614 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.

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 Schluter.com.
- 2) Various configurations of KERDI-DRAIN and KERDI-LINE are listed by ICC-ES (Report No. PMG-1204), UPC® (File No. 4591) and CSA (File No. 211355). 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. Links to the above listings can also be accessed at Schluter.com.

Product Item Numbers



8.1 Schluter®-KERDI			Waterproofing membrane
Item No.	Length	Area	Thickness
Roll width: 1 m - 3' 3"			
KERDI 200/5M	16' 5" – <i>5 m</i>	54 ft ² - 5 m ²	8 mil
KERDI 200/7M	23' – 7 m	75 ft² – 7 <i>m</i> ²	8 mil
KERDI 200/10M	33' – 10 m	108 ft² – 10 m²	8 mil
KERDI 200/20M	65' 7" <i>– 20 m</i>	215 ft² – 20 m²	8 mil
KERDI 200	98' 5" <i>– 30 m</i>	323 ft² – 30 m²	8 mil
Roll width: 2 m - 6' 7"			
KERDI 200200/15M	49' 2-1/2" – 15 m	323 ft² – 30 m²	8 mil
KERDI 200200	98' 5" – <i>30 m</i>	646 ft² – 60 m²	8 mil

8.1 Schluter®-KER	DI-DS		Wat	erproofing membrane
Item No.	Width	Length	Area	Thickness
KERDI-DS	3' 3" – 1 m	98' 5" – <i>30 m</i>	323 ft² – 30 m²	20 mil



8.1 Schluter®-KERDI-I	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" – <i>5 m</i>	4 mil
KEBA 100/250/5M	10" <i>– 25 cm</i>	16' 5" – <i>5 m</i>	4 mil
KEBA 100/125	5" – 12.5 cm	98' 5" – <i>30 m</i>	4 mil
KEBA 100/185	7-1/4" – 18.5 cm	98' 5" <i>– 30 m</i>	4 mil
KEBA 100/250	10" <i>– 25 cm</i>	98' 5" – 30 m	4 mil
KEBA 100/125/300	5" – 12.5 cm	984' 3" – 300 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" <i>– 25 cm</i>	16' 5" – <i>5 m</i>	12 mil
FLEX 125/30	5" – 12.5 cm	98' 5" – <i>30 m</i>	12 mil
FLEX 250/30	10" – 25 cm	98' 5" – <i>30 m</i>	12 mil











8.1 Schluter®-KER	DI-KERS-B		Preformed corner
Item No.	Thickness	Description	Packaging
KERECK 135 FI 2	4 mil	Inside corner, 135°	2 units
KERECK 135 FI 10	4 mil	Inside corner, 135°	10 units
KERSB 135 K LR	4 mil	Bench corners	1 right and 1 left
KERSB 135 K 5LR	4 mil	Bench corners	5 right and 5 left
KERSB 135 K	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 o	ver-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 o	ver-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" – <i>114 mm</i>	4 mil	10 units



8.1 Schluter®-KERDI-KM Pipe sea			Pipe seal	
Item No.	Diameter	Opening diameter	Thickness	Packaging
KM 5117/22	6" - 15 cm	7/8" – 22 mm	4 mil	5 units



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



Schluter®-KERDI-FIX	Adhesive/sealant
Item No.	Description
KERDIFIX + color*	Cartridge - 9.81 fl oz - 290 ml
KERDIFIX 100 G	Tube - 3.38 fl oz – 100 ml

*Color Codes
BW GGrey white
To complete the item number, add the <i>color</i> code (e.g., KERDIFIX / BW).

WARRANTIES

Schluter-Systems products and systems are covered under our warranty program, as applicable. For details and to access Schluter Systems' warranty documents:

Visit www.schluter.com/warranties

Or scan here



To obtain hard copies, please contact Customer Service at: 800-472-4588 (USA) or 800-667-8746 (Canada).