

# **ICC-ES Evaluation Report**



**ESR-2467** 

Effective Date: August 2023

This listing is subject to re-examination in one year.

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DIVISION: 09 00 00—FINISHES Section: 09 30 00—Tiling

**REPORT HOLDER:** 

SCHLUTER® SYSTEMS L.P. www.schluter.com

### **EVALUATION SUBJECT:**

SCHLUTER® - KERDI, SCHLUTER® - KERDI-DS, SCHLUTER® - DITRA, SCHLUTER® - DITRA-XL, SCHLUTER® - DITRA-HEAT-TB, AND SCHLUTER® - DITRA-HEAT-DUO WATERPROOFING MEMBRANES

### 1.0 EVALUATION SCOPE

### Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012, 2009 and 2006
  International Building Code<sup>®</sup> (IBC)
- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 International Plumbing Code® (IPC)
- 2024, 2021, 2018, 2015, 2012, 2009, and 2006 International Residential Code® (IRC)
- 2021, 2018, 2015, 2012 and 2009 National Standard Plumbing Code (NSPC)

# Compliance with the following standards:

- ANSI A118.10-2014(R19), Load Bearing, Bonded, Waterproofing Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation
- AC115, ICC-ES Acceptance Criteria for Waterproof Membranes for Flooring and Shower Liners, dated June 2003 (editorially revised August 2008)

# Property evaluated:

Waterproofing

### **2.0 USES**

Schluter® - KERDI, Schluter® - KERDI-DS, Schluter® - DITRA, Schluter® - DITRA-HEAT, Schluter® - DITRA-HEAT, Schluter® - DITRA-HEAT-DUO are waterproofing membranes used for bonded, thinset mortar installations of code-approved ceramic tile and dimension stone. DITRA, DITRA XL, DITRA-HEAT, DITRA-HEAT, DITRA-HEAT-DUO are intended for use on floors over concrete, plywood, oriented strand

board, mortar and poured gypsum underlayments. KERDI and KERDI-DS are intended for use on floors over concrete, mortar, and tile backerboard substrates. KERDI and KERDI-DS are also used as shower lining, as required in IRC Section P2709.2 and IPC Section 417.5.2, over concrete, mortar, tile backerboard, expanded polystyrene foam board, prefabricated polystyrene shower trays, curbs and ramps, gypsum board and masonry substrates.

### 3.0 DESCRIPTION

**3.1 Schluter® - KERDI:** Schluter® - KERDI, manufactured in Germany, is a polyethylene waterproofing membrane covered on both sides with a fleece webbing to anchor the membrane in ceramic tile thin-set mortar. The 8-mil-thick [0.008 in. (0.203 mm)] membrane is available in a width of 39 inches (1 m) or 78 in. (2 m) and in various lengths. KERDI is also available in precut sections.

# 3.2 Schluter® - KERDI-DS:

Schluter® - KERDI-DS, manufactured in Germany, is a polyethylene waterproofing membrane covered on both sides with a fleece webbing to anchor the membrane in ceramic tile thin-set mortar. The 20-mil-thick [0.020 in. (0.508 mm)] membrane is available in a width of 39 inches (1 m) and in various lengths. KERDI-DS is also available in precut sections.

# 3.3 Schluter® - DITRA:

Schluter® - DITRA, manufactured in Canada, is a polyethylene waterproofing membrane with a grid structure of square cavities on the top side, each square cut back in a dovetail configuration, and fleece laminated to the underside of the membrane to anchor the membrane in ceramic tile thin-set mortar. The ¹/g-inch-thick (3.2 mm) membrane is available in a width of 39 inches (1 m) and in various lengths.

### 3.4 Schluter® - DITRA-XL

Schluter® - DITRA-XL is identical to Schluter®-DITRA except that it is  $^{5}/_{16}$  inch (7 mm) thick.

# 3.5 Schluter® - DITRA-HEAT

Schluter® - DITRA-HEAT is a polypropylene membrane with a cut-back stud structure and an anchoring fleece laminated to the underside. The thickness of the mat, including the stud structure is 1/4 in. (5.5 mm). The stud structure is specifically designed to secure DITRA-HEAT-E-HK electric-floor heating cable in place.



### 3.6 Schluter® - DITRA-HEAT-TB

Schluter® - DITRA-HEAT is a polypropylene membrane with a cut-back stud structure and a thermal break/sound attenuation anchoring fleece laminated to the underside. The thickness of the mat, including the stud structure is 5/16 in. (7.8 mm). The stud structure is specifically designed to secure DITRA-HEAT-E-HK electric-floor heating cable in place.

# 3.7 Schluter® - DITRA-HEAT-DUO

Schluter® - DITRA-HEAT is a polypropylene membrane with a cut-back stud structure and a thermal break/sound attenuation anchoring fleece laminated to the underside. The thickness of the mat, including the stud structure is 5/16 in. (7.8 mm). The stud structure is specifically designed to secure DITRA-HEAT-E-HK electric-floor heating cable in place

# 3.8 Accessories:

The following accessories are used with both membranes in accordance with the manufacturer's published installation instructions.

- **3.8.1 KERDI-BAND:** Strips used as seaming tape to seal butt or corner joints are 4 mils thick [0.004 in. (0.102 mm)], range from 5 to 10 inches (127 to 254 mm) in width, and come in various lengths.
- **3.8.2 KERDI-FLEX:** Flexible strips used to seal expansion or flexible edge joints are 12 mils thick [0.012 in. (0.305 mm)], range from 5 to 10 inches (127 to 254 mm) in width, and come in various lengths.
- **3.8.3 KERDI-KERECK-F:** Preformed inside and outside corners are 4 mils thick [0.004 in. (0.102 mm)].
- **3.8.4 KERDI-DF 32:** Preformed flashing collar to be clamped in place after applying a bead of KERDI-FIX or equivalent sealant on the drain body, 20 mils thick [0.020 in (0.5 mm)].

# 4.0 INSTALLATION

Installation of Schluter® - KERDI, Schluter® - KERDI-DS, Schluter® - DITRA, Schluter® - DITRA XL, Schluter® - DITRA-HEAT, Schluter® - DITRA-HEAT-TB and Schluter® - DITRA-HEAT-DUO membranes and accessories must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The membranes are suitable for use with any bonded, thin-set mortar without the need for additional adhesives or primers.

The membranes are separated at expansion joints to avoid restriction of the joint movement, and the seams are sealed with flexible KERDI-FLEX.

The Schluter®-DITRA-HEAT, Schluter® - DITRA-HEAT-TB and Schluter® - DITRA-HEAT-DUO may be installed with the DITRA-HEAT-E-HK heating cable sets. Heating cables are certified under CSA File 269513, UL file #KQYZ.E496874 and cUL file #KQYZ7.E496874 and are outside the scope of this report. Although some jurisdictions do not require another layer of membrane to be installed over cable prior to laying tile, the manufacturer does recommend a layer of Schluter®-KERDI over cables in shower installations. The final approval shall be determined by the authority having jurisdiction in that area. Cable waterproofing can be found under the CSA File

269513, UL file #KQYZ.E496874 and cUL file #KQYZ7.E496874.

### 5.0 CONDITIONS OF USE

The Schluter® - KERDI, Schluter® - KERDI-DS, Schluter® - DITRA, Schluter® - DITRA-XL, Schluter® - DITRA-HEAT, Schluter® - DITRA-HEAT-TB and Schluter® - DITRA-HEAT-DUO membranes and accessories described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 This report is limited to evaluation of the membranes for interior use over those substrates described in Section 2.0. Other applications are outside of the scope of this report.

### **6.0 IDENTIFICATION**

- 6.1 Packaging for Schluter® KERDI, Schluter® KERDI-DS, Schluter® DITRA, Schluter® DITRA-XL, Schluter® DITRA-HEAT, Schluter® DITRA-HEAT-TB and Schluter® DITRA-HEAT-DUO membranes and accessories must bear a label indicating the manufacturer's name (Schluter Systems L.P.) and address, the product name, the date of manufacture and the evaluation report number (ESR-2467).
- 6.2 The report holder's contact information is the following:

SCHLUTER® SYSTEMS L.P. 194 PLEASANT RIDGE ROAD PLATTSBURGH, NEW YORK 12901 (800) 472-4588 www.schluter.com