



Encapsulating Ditra-Heat with Self-Leveling Underlayment

DATE

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RECOMMENDATION

H.B. Fuller Construction Products Inc. allows the use of TEC® Level Set® 500 HF, TEC® Level Set® 400 HF, and TEC® Level Set® 300 over Schluter Ditra-Heat in residential to light commercial settings provided that the substrate is concrete or approved wood, and the thickness of the self-leveling underlayment is at least 3/8" above the top of the studs, or the minimum depth required by manufacturer whichever is thicker based on application. The goal of using self-leveler over heating mats is to encapsulate the wires – not to level or flatten the substrate. Leveling and flattening the substrate should be performed before the installation of the mat to allow for proper uncoupling performance.

Discussion

Robinson-Type Floor testing was performed on 16" o.c. tongue-and-groove OSB with Ditra-Heat. The membrane was installed with TEC® Quik Flex® and allowed to cure for one day. TEC Level Set 300 (SLU) was mixed according to the instructions on the bag and poured to a depth of 3/8" over the top of unprimed Ditra-Heat. When pouring over Ditra-Heat, priming is not required due to the depth of the pour and the mechanical interlocking of the SLU with the Ditra studs. After the SLU cured for 24 hours, luxury vinyl tile (LVT) was installed using TEC® Flexera® and Parabond® 4700 resilient adhesives. Flexera and 4700 adhesives were installed according to the instructions on the pail using a 1/16" square-notch trowel. Once the LVT was installed, the panel remained untouched for 5 days.

The panel was tested per *ASTM C627- Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester* requirements. The loading schedule is included in Figure 1.

Cycle	Type of Wheels	Total Weight per Wheel lbs (kg)	Duration of Test, h	Total Number of Revolutions
1	soft rubber	100 (45)	1	900
2	soft rubber	200 (91)	1	900
3	soft rubber	300 (136)	1	900
4	soft rubber	300 (136)	1	900
5	hard rubber	100 (45)	1	900
6	hard rubber	200 (91)	1	900
7	hard rubber	300 (136)	1	900
8	hard rubber	300 (136)	1	900
9	steel	50 (23)	1/2	450
10	steel	100 (45)	1/2	450
11	steel	150 (68)	1/2	450
12	steel	200 (91)	1/2	450
13	steel	250 (114)	1/2	450
14	steel	300 (136)	1/2	450

Figure 1. Loading schedule for ASTM C627.

After each cycle, the panel was reviewed to see if there was any damage. If it passed, the testing would continue onto the next cycle.

The Ditra-Heat and Level Set 300 system passed Light Commercial rating with 16" o.c. tongue-and-groove OSB. Similar results are expected over concrete substrates.

Questions?

Call the Technical Support Hotline at 1-800-832-9023.

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H.B. Fuller Construction Products Inc. | 1105 South Frontenac Street Aurora, IL 60504-6451