TILE COUNCIL OF NORTH AMERICA, INC.

PRODUCT TESTING SERVICE

100 Clemson Research Blvd. Anderson, SC 29625 Tel (864) 646-TILE Fax (864) 646-2821

TCNA TEST REPORT NUMBER: TCNA-032-08 **PAGE:** 1 **OF** 2

TEST REQUESTED BY: Laticrete International
Attn: Steve Fine
91 Amity Road
Bethany, CT 06524

TEST SUBJECT MATERIAL: Identified by client as: LATICRETE 170 Sound & Crack Isolation Mat with Laticrete 1523 Sanded Grout

TEST DATE: 3/7/08

TEST PROCEDURE: ASTM C627: "A Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester"

Materials:

A thin-set installation over a concrete base was prepared using the following materials:

1) A 42" x 42" x 2" concrete base with a smooth finish
2) LATICRETE 170 Sound & Crack Isolation Mat
3) Laticrete 253 Gold thin-set mortar
4) 8" x 8" Florida Tile (¼" grout joints)
5) Laticrete 1523 Sanded Grout

Base and Underlayment:

Laticrete 253 Gold thin-set mortar, mixed with water per manufacturer's instructions, was troweled over the concrete base with a ¼" x ¼" square notched trowel. LATICRETE 170 Sound & Crack Isolation Mat was laid over the mortar and rolled with a linoleum roller. The installation was then allowed to cure for 24 hours.

Katelyn Simpson
Laboratory Engineer

5/27/08
Date

Tile and Grout:

Laticrete 253 Gold thin-set mortar, mixed with water per manufacturer's instructions, was troweled over the LATICRETE 170 Sound & Crack Isolation Mat with a ¼" x ¼" square notched trowel. The thin-set mortar was first keyed in with the flat side of the trowel and then combed with the notched side to form parallel ridges. The 8" x 8" Florida Tile ceramic tiles were set in the thin-set by pressing down and sliding the tiles in a direction perpendicular to the combed ridges. A beat-in block and rubber mallet were used to reduce lippage between tiles. After the tiles were installed, the thin-set was allowed to cure for 24 hours before grouting.

Laticrete 1523 Sanded Grout, mixed with water per manufacturer's instructions, was forced into the ¼" grout joints with a rubber float. Excess grout was removed with the edge of the float. The grout was allowed to set up for approximately 20 minutes before the installation was cleaned with a sponge and water. The grouted installation was subsequently allowed to cure for 28 days. At the end of the cure period, the installation was subjected to load cycling as defined in ASTM C-627.

TEST RESULTS:

The installation completed six cycles (hard rubber wheels, two hundred pounds per wheel) with no evidence of damage to the tile or grout joints. Upon completion of cycle seven (hard rubber wheels, three hundred pounds per wheel), three tiles were broken. At this point, the damage constituted failure of the installation according to the evaluation criteria of ASTM C-627.*

*All evaluation criteria were based on 12 tiles and 13 grout joints in the wheel path of the Robinson-Type Floor Tester.

CONCLUSION:

In accordance with the Performance-Level Requirement Guide of the 2008 *TCA Handbook for Ceramic Tile Installation* (page 16), the installation is classified "LIGHT" for *"light commercial use in office space, reception areas, kitchens, and bathrooms"*.

Katelyn Simpson
Laboratory Engineer

5/27/08
Date

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TEST REQUESTED BY: Laticrete International
Attn: Steve Fine
91 Amity Road
Bethany CT 06524

TEST SUBJECT MATERIAL: Identified by client as: LATICRETE 170 Sound & Crack Isolation Mat with Laticrete SpectraLOCK Pro Grout

TEST DATE: 3/12/08

TEST PROCEDURE: ASTM C627: "A Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester"

Materials:

A thin-set installation over a concrete base was prepared using the following materials:

1) A 42" x 42" x 2" concrete base with a smooth finish
2) LATICRETE 170 Sound & Crack Isolation Mat
3) Laticrete 253 Gold thin-set mortar
4) 8" x 8" Florida Tile (¼" grout joints)
5) Laticrete SpectraLOCK Pro grout

Base and Underlayment:

Laticrete 253 Gold thin-set mortar, mixed with water per manufacturer's instructions, was troweled over the concrete base with a ¼" x ¼" square notched trowel. LATICRETE 170 Sound & Crack Isolation Mat was laid over the mortar and rolled with a linoleum roller. The installation was then allowed to cure for 24 hours.

Katelyn Simpson
Laboratory Engineer

5/27/08
Date

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Tile and Grout:

Laticrete 253 Gold thin-set mortar, mixed with water per manufacturer's instructions, was troweled over the LATICRETE 170 Sound & Crack Isolation Mat with a ¼" x ¼" square notched trowel. The thin-set mortar was first keyed in with the flat side of the trowel and then combed with the notched side to form parallel ridges. The 8" x 8" Florida Tile ceramic tiles were set in the thin-set by pressing down and sliding the tiles in a direction perpendicular to the combed ridges. A beat-in block and rubber mallet were used to reduce lippage between tiles. After the tiles were installed, the thin-set was allowed to cure for 24 hours before grouting.

Laticrete SpectraLOCK Pro grout, mixed per manufacturer's instructions, was forced into the ¼" grout joints with a rubber float. Excess grout was removed with the edge of the float. The grout was allowed to set up for approximately 20 minutes before the installation was cleaned with a sponge and water. The grouted installation was subsequently allowed to cure for 28 days. At the end of the cure period, the installation was subjected to load cycling as defined in ASTM C-627.

TEST RESULTS:

The installation completed six cycles (hard rubber wheels, two hundred pounds per wheel) with no evidence of damage to the tile or grout joints. Upon completion of cycle seven (hard rubber wheels, three hundred pounds per wheel), six tiles were broken. At this point, the damage constituted failure of the installation according to the evaluation criteria of ASTM C-627.*

*All evaluation criteria were based on 14 tiles and 14 grout joints in the wheel path of the Robinson-Type Floor Tester.

CONCLUSION:

In accordance with the Performance-Level Requirement Guide of the 2008 *TCA Handbook for Ceramic Tile Installation* (page 16), the installation is classified "LIGHT" for *"light commercial use in office space, reception areas, kitchens, and bathrooms"*.

Katelyn Simpson
Laboratory Engineer

5/27/08
Date