



# TERRAZZO, TILE AND MARBLE ASSOCIATION OF CANADA L'ASSOCIATION CANADIENNE DE TERRAZZO, TUILE ET MARBRE

## Universal Floor Report

**TTMAC TEST REPORT NUMBER:** UFT01-2013  
**TEST REQUESTED BY:** Pliteq Inc.  
**TEST DATE:** January 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> 2013  
**TEST PROCEDURE:** ASTM –C 627

### MATERIALS:

- Client supplied Genie Mat RST05
- To be applied on a cured 48" x 48" cement pad that had been poured & cured minimum of 28 days
- December 16<sup>th</sup> 2012 applied Laticrete 254 Platinum thin set mortar to 48" x 48" pad. Placed the Genie mat in the thin set mortar then rolled the mat into the mortar with a 60 lb. roller to embed the Genie Mat firmly into the thin set mortar and allowed to cure for 24 hours at 70° F 21°C ± 5% Genie Mat was installed with a 1/4x1/4 square notched trowel
- December 17<sup>th</sup> installed 12" x 12" 11mm thick glazed porcelain tile in a staggered design, with Laticrete 254 Platinum thin set mortar with a 5mm grout joint. Tiles were back buttered & installed with a 1/4x1/4 square notched trowel, all tiles were back buttered. allowed to cure for 24 hours at 70° F 21°C ± 5%
- December 20<sup>th</sup> 2012 Grout the tile with Laticrete Perma Grout allow to cure 7 days at 70° F 21°C ± 5%
- Test date December 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> 2013.

Initial observation of the 4' x 4' Flooring System test piece yielded minor lippage in the North East and South East quadrants as noted in the pictures. However, all grout joints fall within the 1-3mm tolerance zone allowed for the 6mm cementitious grout joint gap. The above representations are presented in detail in the accompanying photographs. The 4 ft. x 4 ft. test panel consisted of 12" x 12" porcelain 11mm rectified tiles laid in staggered pattern. Each tile had a smooth, even surface.

The test subjected 13 tiles and 12 grout joints on the test panel to various live loads over fourteen (14) cycles on the Robinson Floor Tester. A cycle consists of subjecting the test panel to a load distributed evenly over 3 wheels. The wheels circumscribed a 30" diameter path for a set number of rotations as prescribed by ASTM C627 designation.

For Cycles 1 through 4, soft rubber wheels were used. On the first cycle, the test panel was subjected to a load of 300 lbs for 900 rotations. For Cycle 2, the load was increased to 600 lbs for 900 rotations. Cycle 3 subjected the test panel to 900 lbs for 900 rotations. Cycle 4 was a repeat of cycle 3, which is 900 lbs for 900 rotations. The test panel was examined after each cycle. No evidence of wear or damaged was observed.

Cycles 5 through 8 used hard rubber wheels. Cycle 5 subjected the test panel to 300 lbs for 900 rotations. For cycle 6 the load was 600 lbs for 900 rotations. Cycle 7 subjected the test panel to 900 lbs for 900 rotations. Cycle 8 was a repeat of cycle 7, which is 900 lbs for 900 rotations. Again, no evidence of wear or damage was observed at the end of each cycle.

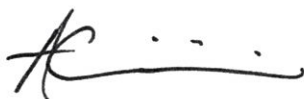
Steel wheels were used for cycles 9 through 14. For Cycle 9 a load of 150 lbs was placed on the test panel and rotated 451 times. The test panel was subjected to successive loads of 300 lbs for Cycle 10, 450 lbs for Cycle 11, 600 lbs for Cycle 12, 750 lbs for Cycle 13 and 900 lbs for Cycle 14. Each of these cycles underwent 450 rotations. The integrity of the grout joints remained intact throughout the entire test; however at the end of cycle 11, both mentioned lippage areas revealed minor chipped tile edges but not exceeding the allotted allowance thickness of the 11mm tile. See photos attached to the final submission.

**CONCLUSION**

As noted in Cycle 11, tile edges had chipped in the North East and South East quadrants of the test pad due to minor lippage which was mentioned in the initial observation but within the allotted tolerance. However, the integrity of the grout joint remained intact, the test went all 14 cycles as the tile did not chip one tile thickness from the edge of the tile therefore this floor assembly is considered to be fully approved for the designation of MODERATE COMMERCIAL in accordance with ASTM C627-10 having completed cycle 11 successfully.

The testing conducted on this assembly was completed in parallel with ASTM C-627 procedures: however, ASTM C-627 10 is the standard method for evaluating floor tile installation systems performance test. The results of this test are to be used as a general guide to comparative performance and not a true acknowledgement of the assembly’s ability or inability to perform to a determined level.

Applications	Assembly Components & Methods
Extra Heavy (Passes ASTM C627-93 cycles 1-14) Extra Heavy and high impact use in shipping and receiving, food plants, dairies, breweries and commercial kitchens.	Concrete substrates only Tile 12+ mm quarry tile, 7mm+ porcelain tile or packing house tile, installation 309F-310F-2006,. Wood-non
Heavy (Passes ASTM C627-93 cycles 1through 12) Latex modification recommended Shopping malls, stores, airport terminals, work areas. Laboratories, auto showrooms, and service areas.	Concrete Substrate Tile – 10mm+quarry tile, 7mm+porcelain tile, 13mm+terrazzo tile, 10mm+agglomerated, marble or granite. Installation-312F-2006, 325ED2006 (A,E) Wood Substrate- 313F2006 (A)(100% solids epoxy mortar.
Moderate (Passes ASTM C627-93 cycles 1 through 10) Normal commercial and light institutional use in public Space restaurants and hospitals (etc)	Concrete Substrate Tile-ceramic, mosaic or heavier Installation see above
Light (Passes ASTM C627-93 cycle 1 through 6) Light commercial use in office space, reception areas. Kitchens, bathrooms.	Concrete Substrate Tile-ceramic, mosaic or heavier Installation-314F-2006, 325ED-2006 (A,E) and latex. Portland cement mortar bond coat over waterproof Membrane, Wood- 325ED-2006 (B,C,D)
Residential (Passes ASTM C627-93 (1999) cycles 1 through 3) Kitchens, bathrooms, foyers.	Concrete Substrate Tile-ceramic, mosaic or heavier Installation-See Above Wood



Alberto Cimini  
 Test Technician/Facilitator

# Certificate of Completion

ASTM C-627 Designation

Moderate Commercial

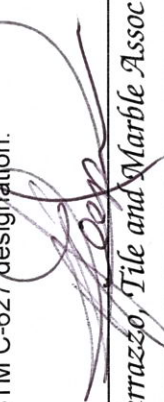
*Received through testing conducted using the Universal Floor Tester  
incorporating the system listed below and submitted by*

*Pliteq Inc.*

System Components:

- Client supplied Genie Mat RST05
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The testing conducted on this assembly was completed in parallel with ASTM C-627 procedures; however, ASTM C-627 93 is the standard method for evaluating ceramic floor tile installation systems is a systems performance test. The results of this test are to be used as a general guide to comparative performance and are not a true acknowledgement of the assembly's ability or inability to perform to a determined level. This floor system is fully approved for moderate commercial use under the ASTM C-627 designation.



*Terrazzo, Tile and Marble Association of Canada*

*Date: January 28, 2013*

*Test # UFT01-2012*