



**IPAL TEST REPORT NUMBER:** IPAL-0680-25 **PAGE:** 1 OF 3

**TEST REQUESTED BY:** Heritage Tile

**TEST METHOD:** ASTM C648-20: “Standard Test Method for Breaking Strength of Ceramic Tile”

Informal Test Method Description: This test method covers the determination of the breaking strength of glazed ceramic wall tile, ceramic mosaic tile, quarry tile, and paver tile. The test method consists of supporting the tile on the ends of three cylindrical rods, or on three ball bearings arranged in an equilateral triangle, and applying force at a definite rate to the center of the tile, until the specimen breaks.

This summary is provided for the reader’s convenience and is not a complete description of the method. See ASTM C648 for all method details and information.

**TEST SUBJECT MATERIAL:** Identified by client as: “**Compass Tile Collection**”  
Approximate Size as Received: 8" x 8" x 0.33"

**TEST DATE:** 10/28/2025

**TEST PROCEDURE NOTES:**

- Sample prep: None
- Ten (10) glazed samples were tested
- Testing was performed on an Instron Universal Tester, model #3385-H
- A 1.5-inch equilateral triangular support was used to hold the tiles during loading
- The tiles were loaded at a rate of 1000 pounds per minute

**TEST RESULTS:**

	Breaking Strength (lbf)		Breaking Strength (lbf)
Specimen 1	360 lbf	Specimen 6	394 lbf
Specimen 2	440 lbf	Specimen 7	355 lbf
Specimen 3	374 lbf	Specimen 8	400 lbf
Specimen 4	410 lbf	Specimen 9	357 lbf
Specimen 5	414 lbf	Specimen 10	371 lbf
		<b>Average</b>	<b>387 lbf</b>

**COMMENTS:** None



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**TEST METHOD:**

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**ANSI SPECIFICATIONS\*:**

ANSI standard	Tile Type	Specification
ANSI A 137.1 (Ceramic Tile)	Mosaic Tile	The average breaking strength shall be 250 lbf or greater with no individual specimen below 225 lbf
ANSI A 137.1 (Ceramic Tile)	Quarry Tile	The average breaking strength shall be 275 lbf or greater with no individual specimen below 250 lbf
ANSI A 137.1 (Ceramic Tile)	Pressed Floor Tile	The average breaking strength shall be 250 lbf or greater with no individual specimen below 225 lbf
ANSI A 137.1 (Ceramic Tile)	Porcelain Tile	The average breaking strength shall be 275 lbf or greater with no individual specimen below 250 lbf
ANSI A 137.1 (Ceramic Tile)	Glazed Wall Tile	The average breaking strength shall be 125 lbf or greater with no individual specimen below 100 lbf
ANSI A 137.2 (Glass Tile)	Fused or Low Temperature Mosaic Glass Tile	The minimum average breaking strength shall be 250 lbf
ANSI A 137.2 (Glass Tile)	Cast Mosaic Glass Tile	The minimum average breaking strength shall be 350 lbf

*\*For more detailed information, refer to ANSI A137.1 Specifications for Ceramic Tile and ANSI A137.2 Specifications for Glass Tile*

**IMAGE OF PRODUCT TESTED:**





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10/30/2025

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