

TILE INSTITUTE of AMERICA

1262 Bouquet Circle, Thousand Oaks, California 91362 Telephone: (805) 371-TILE (8453) Facsimile: (805) 371-8455

TIA's Client: 20160415

AquaBella/Main Street Art, Inc.
Mr. Brian L. Streadbeck
450 South Alpine Highway
Alpine, Utah 84004

Telephone: (714) 264-8269 Facsimile: (714) 685-0465
brian@msagallery.com

Tile: North Seas Series, color mottled silver "NS-116 Celtic" glass body, mesh back mounted.
Nominal size: 1" x 1" x 1/4" Pattern. Tile made in China.

Conditions: New tiles sent to TILE INSTITUTE of AMERICA in sealed manufacturer's boxes from client above and selected at random.

The tiles were bonded between concrete units and bonding mortar with latex-modified thin set mortar.
Specification: ASTM C 482

Report of Test

ADHESION BOND SHEAR STRENGTH (*ASTM C 482)

Standard Test Method for Bond Strength of Ceramic Tile. This method provides the means for establishing whether or not this tile can be bonded with adequate strength to Portland cement, which may appear in tile specifications. Tile bond adhesion strength is the force in pounds-force (or Newton's), as read from the pressure gauge, necessary to cause the tile's bond to shear. The load was applied at the rate of 1000 lbf/min. The tile samples were placed on a test fixture as per specifications. * Modified by using a bond coat as identified versus pure cement.

Table with 7 columns: Sample #, Days Cured, Bonding Material, Sq. Inches, Load Pound, PSI, Failure %. Contains 5 rows of test data and an average row.

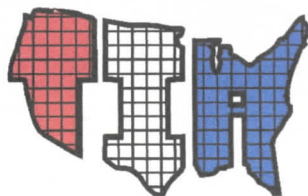
Requirements: ANSI A 137.1 (General) Bond Strength. When tested as described in ASTM C 482, the average bond strength shall be 50 pounds per square inch or greater.

Test Results: Pass

Sincerely,

Gerald M. Halweg, CTC, CSI, TTA.
President/CEO of TILE INSTITUTE of AMERICA

Date: June 15, 2016



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Thermal Shock Resistance of Ceramic Tile (ASTM C484)

Procedure: This test method is a procedure for determining whether ceramic tiles are affected by prolonged exposure to high temperature and rapidly cooled to typical room temperature. The procedure is to place tiles into an oven maintained at a temperature of $293 \pm 9^\circ \text{F}$ ($145 \pm 5^\circ \text{C}$) and supported face up in a manner that the glazed surface of each tile is freely exposed to the oven atmosphere. After 30 minutes, the tiles are removed and put face up quickly onto a sheet of aluminum maintained at a room temperature of $75 \pm 5^\circ \text{F}$ ($24 \pm 3^\circ \text{C}$). After 15 minutes, the tiles are inspected for shivering or any other type of disintegration. The process was repeated five times.

<u>Specimens</u>	<u>Results</u>
1.	Not affected
2.	Not affected
3.	Not affected
4.	Not affected
5.	Not affected

Test Results: Pass

Sincerely,

Gerald M. Halweg, CTC, CSI, TTA.
President/CEO

Date: June 9, 2016