



## ◆ **TILE INSTITUTE of AMERICA** ◆

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

**AquaBella by Main Street Art, Inc.**  
**450 South Alpine Highway**  
**Alpine, Utah 84004**

Client: 20160415  
**(714) 264-8269**  
[brian@msagallery.com](mailto:brian@msagallery.com)  
[info@aquabellatile.com](mailto:info@aquabellatile.com)

Tile: North Seas Series, color mottled silver "**NS-818 Icelandic Blend**" glass body.  
 Nominal size: 1" x 1" x 1/4" & 2" x 2" x 1/4". 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. New tile were cleaned per specification prior to testing.

### **TEST: RESISTANCE TO FREEZE-THAW CYCLING (ASTM C 1026)**

Standard Test Method for Measuring the Resistance of Ceramic Tile to Freeze-Thaw Cycling.

Ten Specimens were placed into the freezing chamber to 0°F (-18°C) within a period of 6-8 hours and placed into water that was at a temperature from 50° to 60°F (10° to 16°C) for ≥30 minutes.

Requirements: After 15 Cycles, The units are to show no evidence of Failure to Body or Surfaces.

None = No evidence of Disintegration. Damage to the specimen is reported with the abbreviation as follows:  
 Cz = crazing, Ch = Chipping, Sp = spalling, Bc = body checks, Cr = cracks.

**Results: All units described above have PASSED as shown below:**

Tile	A	B	C	D	E	F	G	H	I	J	Control
Before	None	None	None	None	None	None	None	None	None	None	None
Cycle #											
1	None	None	None	None	None	None	None	None	None	None	None
2	None	None	None	None	None	None	None	None	None	None	None
3	None	None	None	None	None	None	None	None	None	None	None
4	None	None	None	None	None	None	None	None	None	None	None
5	None	None	None	None	None	None	None	None	None	None	None
6	None	None	None	None	None	None	None	None	None	None	None
7	None	None	None	None	None	None	None	None	None	None	None
8	None	None	None	None	None	None	None	None	None	None	None
9	None	None	None	None	None	None	None	None	None	None	None
10	None	None	None	None	None	None	None	None	None	None	None
11	None	None	None	None	None	None	None	None	None	None	None
12	None	None	None	None	None	None	None	None	None	None	None
13	None	None	None	None	None	None	None	None	None	None	None
14	None	None	None	None	None	None	None	None	None	None	None
15	None	None	None	None	None	None	None	None	None	None	None

Continued:

North Seas, "NS-818 Icelandic Blend" glass body.

16	None	None	None	None	None	None	None	None	None	None	None
17	None	None	None	None	None	None	None	None	None	None	None
18	None	None	None	None	None	None	None	None	None	None	None
19	None	None	None	None	None	None	None	None	None	None	None
20	None	None	None	None	None	None	None	None	None	None	None
21	None	None	None	None	None	None	None	None	None	None	None
22	None	None	None	None	None	None	None	None	None	None	None
23	None	None	None	None	None	None	None	None	None	None	None
24	None	None	None	None	None	None	None	None	None	None	None
25	None	None	None	None	None	None	None	None	None	None	None
26	None	None	None	None	None	None	None	None	None	None	None
27	None	None	None	None	None	None	None	None	None	None	None
28	None	None	None	None	None	None	None	None	None	None	None
29	None	None	None	None	None	None	None	None	None	None	None
30	None	None	None	None	None	None	None	None	None	None	None
31	None	None	None	None	None	None	None	None	None	None	None
32	None	None	None	None	None	None	None	None	None	None	None
33	None	None	None	None	None	None	None	None	None	None	None
34	None	None	None	None	None	None	None	None	None	None	None
35	None	None	None	None	None	None	None	None	None	None	None
36	None	None	None	None	None	None	None	None	None	None	None
37	None	None	None	None	None	None	None	None	None	None	None
38	None	None	None	None	None	None	None	None	None	None	None
39	None	None	None	None	None	None	None	None	None	None	None
40	None	None	None	None	None	None	None	None	None	None	None
41	None	None	None	None	None	None	None	None	None	None	None
42	None	None	None	None	None	None	None	None	None	None	None
43	None	None	None	None	None	None	None	None	None	None	None
44	None	None	None	None	None	None	None	None	None	None	None
45	None	None	None	None	None	None	None	None	None	None	None

**These tiles have passed ASTM C1026 Freeze/Thaw Test.**



By:

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

Date:

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*Gerald Halweg*