

PHYSICAL TESTING ANALYSIS REPORT

Description: Freeze Thaw

Test Method: EN539-2 Method D

Ceram Reference: (135579)-23547

Client: Aldershaw Handmade Tiles
Kent Street
Sedlescombe
East Sussex
TN33 0SD

For the Attention of: Anthony Kindell

Date Logged: 30-Oct-2013

Date of Tests: 04-Nov-2013 to 25-Nov-2013

Report Date: 28-Nov-2013

Purchase Order No.: N/A

Please find attached the results for the sample(s) recently submitted for analysis.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.


Mr Graham Doe
Author

Ceram Reference: (135579)-23547
Customer Reference: Dark Antique
Description: Aldershaw Handmade Tiles



**CLAY ROOFING TILES – TEST FOR FROST RESISTANCE
 BSEN 539-2: 2006 Method D**

1 SAMPLES RECEIVED

21 plain tiles with nominal dimensions of 265 x 165 mm within a test panel consisting of seven rows each containing three test tiles. As sampled by client.

2 TEST PROCEDURE

2.1 Saturation of Tiles

The samples were dried at 110°C, weighed and examined for existing defects before being immersed in water at ambient temperature for 24 hours. They were then removed and weighed before returning to the water for a further 6 days. The water absorption results are given in Table 1.

2.2 Freeze/Thaw Tests

The tiles were tested according to the method described in BS EN 539-2, Test Method D using the apparatus illustrated in that standard.

2.3 Results

Table 1

Tile No:	% Water Absorption	Frost Damage			
		50 Cycles (Front)	50 Cycles (Back)	100 Cycles (Front)	100 Cycles (Back)
1	8.0	No damage	No damage	No damage	No damage
2	8.0	No damage	No damage	No damage	No damage
3	7.8	No damage	No damage	No damage	No damage
4	7.9	No damage	No damage	No damage	No damage
5	7.8	No damage	No damage	No damage	No damage
6	7.7	No damage	No damage	No damage	No damage
7	7.9	No damage	No damage	No damage	No damage
8	7.9	No damage	No damage	No damage	No damage
9	7.7	No damage	No damage	No damage	No damage
10	7.4	No damage	No damage	No damage	No damage
11	7.8	No damage	No damage	No damage	No damage
12	7.5	No damage	No damage	No damage	No damage
13	7.6	No damage	No damage	No damage	No damage
14	7.9	No damage	No damage	No damage	No damage
15	8.3	No damage	No damage	No damage	No damage
16	7.9	No damage	No damage	No damage	No damage
17	7.9	No damage	No damage	No damage	No damage
18	7.7	No damage	No damage	No damage	No damage
19	7.9	No damage	No damage	No damage	No damage
20	7.8	No damage	No damage	No damage	No damage
21	8.3	No damage	No damage	No damage	No damage
Mean	7.9	No damage	No damage	No damage	No damage

The tiles were examined after 50 cycles and 100 cycles for signs of damage due to the action of frost.

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3 SUMMARY AND CONCLUSIONS

BS EN 539-2, Test Method D requires that when tiles are tested by the method described they shall withstand 100 cycles without damage before they can be regarded as frost resistant.

The samples of tiles have met this criterion at 50 and 100 cycles and can therefore be regarded as frost resistant.

END OF TEST REPORT