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TEST REPORT

Clients Mark	Handmade Tiles	Date Received	9 th July 2007
Your Reference		Date Tested	23 rd July 2007
Lab Reference	BT07456TAS;RT500	Date Issued	23 rd August 2007

**EN 539-2: CLAY ROOFING TILES FOR DISCONTINUOUS LAYING.
DETERMINATION OF PHYSICAL CHARACTERISTICS –
PART 2: TEST FOR FROST RESISTANCE.**

Method D (UK and Eire)

1. SAMPLES

25 clay roofing tiles referred to as Heritage Handmade Tiles.

2. TEST PROCEDURE

2.1 Saturation of Tiles

The samples were dried at 110°C, weighed and examined for existing defects and immersed in water at ambient temperature for 24h. 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.	% W.A.	Damage by Frost		Tile No.	% W.A.	Damage by Frost	
		50 Cycles	100 Cycles			50 Cycles	100 Cycles
1	3.7	Nil	Nil	14	2.9	Nil	Nil
2	4.0	Nil	Nil	15	3.0	Nil	Nil
3	3.2	Nil	Nil	16	2.9	Nil	Nil
4	4.0	Nil	Nil	17	2.9	Nil	Nil
5	4.0	Nil	Nil	18	2.9	Nil	Nil
6	3.5	Nil	Nil	19	3.1	Nil	Nil
7	3.7	Nil	Nil	20	3.4	Nil	Nil
8	3.4	Nil	Nil	21	3.4	Nil	Nil
9	3.3	Nil	Nil	22	3.3	Nil	Nil
10	3.4	Nil	Nil	23	3.4	Nil	Nil
11	2.9	Nil	Nil	24	3.9	Nil	Nil
12	2.8	Nil	Nil	25	3.7	Nil	Nil
13	2.9	Nil	Nil				
				Mean	3.3	No Damage	No Damage

The tiles were examined after 50 cycles and 100 cycles for signs of damage due to the action of frost. No damage was observed at 50 and or 100 cycles, on this sample of tiles.

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 sample of tiles tested have met this criterion.

(End of Test Report).

Authorised signatory:



Dr Andrew S Smith

Authorised Signature