

**Translation of the Testing Report Prüfbericht Nr. 97-13-2314**

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Testing Report

Applicant: F. v. Müller Dachziegelwerke GmbH & Co KG, Plant Görlitz

Date of Application: 20<sup>th</sup> May 1997

Subject of Application: Testing the ArGeTon Clay Tile

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1. Generally

On the 21<sup>st</sup> May 1997 there were sent 30 pieces Argeton-Façade tiles, natural red, size A 392 x 205,5 x 30 (mm).

The tests effected according to DIN 456 and DIN 52252, part 1. The required values which the DIN's were not containing were given from the producer.

The surfaces of the façade tiles are even and free of cracks. The back sides have the indication F.v. Müller \* 10 / 97 \* ArGeTon

2. Method of Tests and Results

2.1. Measurement

The test effected according to DIN 456

No. Tile	length mm	height mm	thickness mm
1	391	205	30
2	391	204	30
3	391	203	30
4	391	203	30
5	391	205	30
6	391	204	29
7	391	205	30
8	391	204	30
9	391	205	29
10	391	204	30
average			
actual value	391	204	30
required value	392	205,5	30
permitted tolerance	± 1.0	± 3.0	±1.5
requirement complied	yes	yes	yes

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## 2.2 Shape holding

The test effected according to DIN 456

No. Tile	curvature lengthwise mm	curvature crosswise mm	bending mm	Square diff. referring on 200 mm right	Square diff. referring on 200 mm left
1	0.45	0.31	0.06	0	0
2	0.40	0.50	0.20	0	0
3	0.20	0.50	0.69	0	0.75
4	0.36	0.42	0.29	0	0.75
5	0.10	0.05	0.45	0	0
6	0.03	0.13	0.25	0	0
7	0.05	0.01	0.09	0	0
8	0.05	0.30	0.72	0	0.90
9	0.05	0.10	0.76	0	0
10	0.39	0.35	0.67	0	0.75
max. actual value	0.45	0.50	0.76	0	0.90
max. permitted val	3	1.5	4	± 1	± 1
requirements complied	yes	yes	yes	yes	yes

## 2.3 Loadbearing behaviour

The test effected according to DIN 456

No. tile	breaking load [kN]		requirement complied
	actual	required	
11	6.13		
12	6.00		
13	5.78		
14	6.08		
15	5.21		
16	5.60		
average	5.80	≥ 1.5	yes
lowest single value	5.21	≥ 1.2	yes

2.4 Water Absorption / Frost Resistance

The test effected to DIN 52252, part 1. There were made 25 changes of freezing and thawing.

No. Tile	mass dry g	mass wet g	water absorption %
21	3,588	3,726	3.85
22	3,491	3,660	4.84
23	3,598	3,736	3.84
24	3,493	3,644	4.32
25	3,579	3,720	3.94
26	3,504	3,663	4.54
27	3,568	3,728	4.48
28	3,502	3,633	3.74
29	3,494	3,467	4.38
30	3,492	3,650	4.53
average actual	3,531	-	4.25
required	3,400	-	≤ 12.0
deviation actual	+ 131	-	-
required	± 150	-	-
requirement complied	yes	-	yes

Obvious conclusions after 25 changes of freezing and thawing

No. Tile	No. of cycle	damage No. in the standard's sense	obvious conclusions
21	12	-	no damage
	25	-	no damage
22	12	-	no damage
	25	-	no damage
23	12	-	no damage
	25	-	no damage
24	12	-	no damage
	25	-	no damage
25	12	-	no damage
	25	-	no damage
26	12	-	no damage
	25	-	no damage
27	12	-	no damage
	25	-	no damage
28	12	-	no damage
	25	-	no damage
29	12	-	no damage
	25	-	no damage
30	12	-	no damage
	25	-	no damage

### 3. Summary

After the tests all ArGeTon Façade tiles complied with the requirements according to DIN 456 referring to the measurement, shape holding, load bearing and water absorption.

The frost resistance according to DIN 52252 has been proved. The results comply with the requirements.