

**Title: Impact testing on a Terracotta
Rainscreen cladding sample**

Certificate of Test Number: 7546

Client's Name & Address:

Telling Architectural Ltd
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Fordhouses
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Our Ref: N950/T473

TW Job No: 3ET2

Your Ref:

Date: 12 July 2005

Date sample(s) received: 5 January 2005

Sample(s) received from: Telling

Sample No: C1116-B

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1. INTRODUCTION

This certificate of test describes impact testing on a sample of Terracotta Rainscreen Cladding. Testing was carried out on the 5th January 2005 at the request of Telling Architectural Limited and was conducted at Taylor Woodrow's Cladding test facility at Leighton Buzzard, Bedfordshire.

Testing was carried out generally in accordance with the BS8200: 1985 section 7 and appendix G test procedure for soft body impacting.

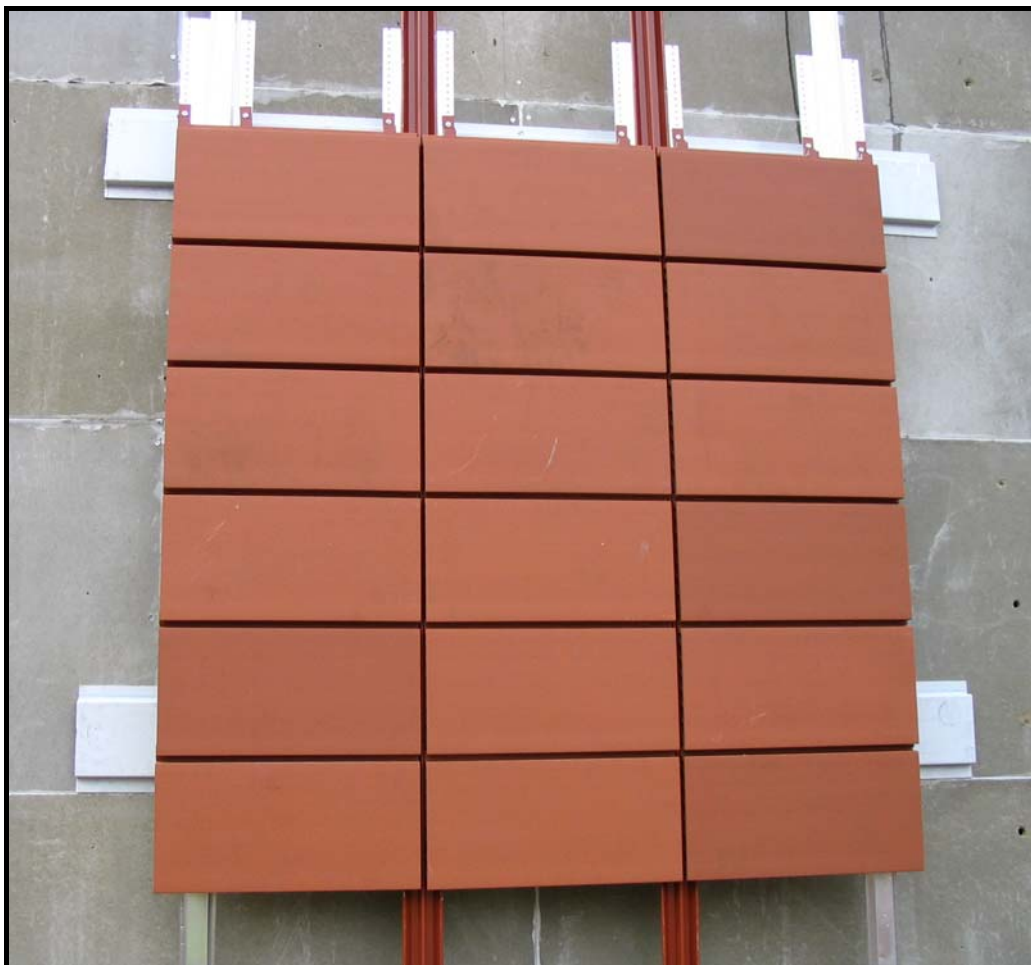
The test were witnessed by:

Russell Clark	-	Telling Architectural Ltd
Craig Boddice	-	Telling Architectural Ltd
Andrew Wood	-	Telling Architectural Ltd

2. SAMPLE DESCRIPTION

The test sample comprised of a Terracotta Rainscreen Cladding System as detailed in the drawing included at the end of this certificate and shown in photograph below.

PHOTO 0219



3. TEST ARRANGEMENT

3.1 Soft body

The soft body impactor comprised a canvas spherical/conical bag 400 mm in diameter filled with 3 mm diameter glass spheres with a total mass of approximately 50 kg suspended from a cord at least 3 m long.

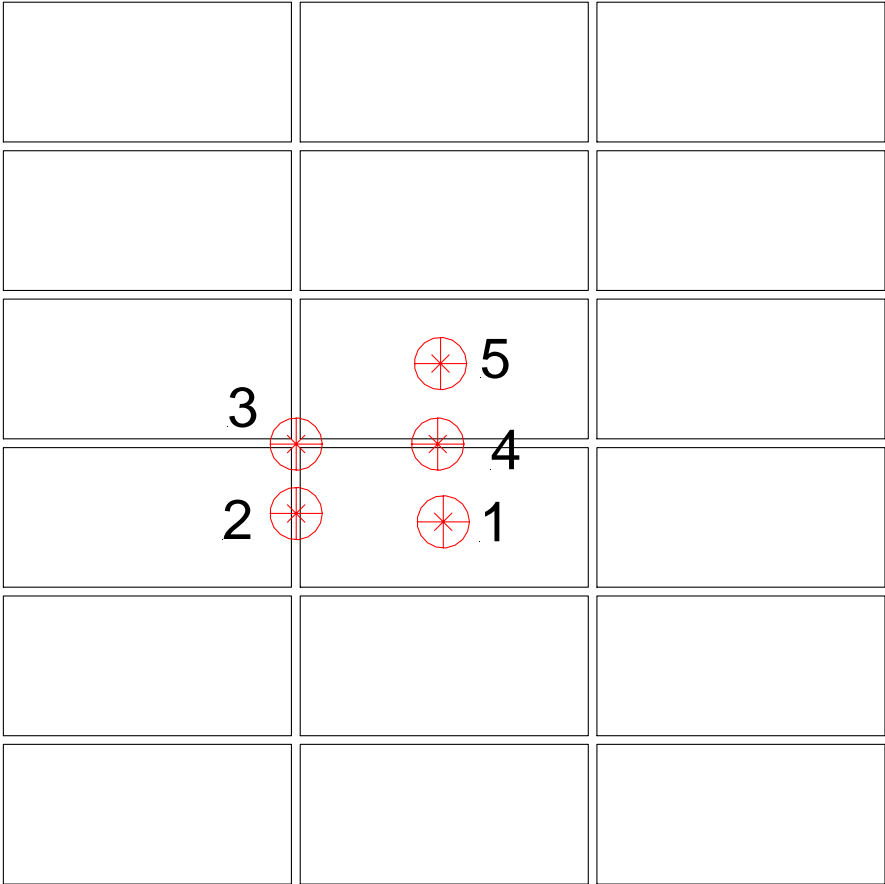
3.2 Hard body

The hard body impactors were solid steel balls of 50 mm and 65 mm diameters and approximate mass of 0.5 kg and 1.0 kg respectively.

4. TEST PROCEDURE

The impactor almost touched the face of the sample when at rest. It was swung in a pendular movement to hit the sample normal to its face. The test was performed at locations shown in Figure 1. The impact energies were 120 Nm, 350 Nm and 500 Nm for the soft body and 3 Nm, 6 Nm and 10 Nm for the hard body.

FIGURE 1



5. TEST RESULTS

5.1 Soft Body

LOCATION	ENERGY (Nm)	RESULT
1	120, 350	No damage observed.
2	120, 350	No damage observed.
3	120, 350	No damage observed.
4	120, 350	No damage observed.
5	500	No damage observed to tiles. The vertical support rail moved in due to the buckling of the horizontal behind it.

PHOTO 0224

SUPPORT RAILS AFTER TESTING



5.2 Hard Body

Note: *These tests were carried out on a similar system using the same tiles and fixings, but on horizontal support rails.*

LOCATION	ENERGY (Nm)	RESULT
Centre of tile	3	Vertical hairline crack from top of impact point. Tile stayed secure on wall.
Short edge between tiles	3	No damage observed.
Long edge between tiles	3	Vertical crack across tile. Tile stayed secure on wall.
Centre of tile	6	3-way crack across tile. Tile stayed secure on wall.
Long edge between tiles	6	Vertical hairline crack from top of impact point. Tile stayed secure on wall.
Centre of tile	10	3-way crack across tile. Tile stayed secure on wall.

6. DRAWING

The following un-numbered page is a copy of Telling Architectural Ltd. drawing numbered T006.

END OF CERTIFICATE