

# SANDBERG

CONSULTING ENGINEERS

TESTING    INSPECTION  
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## VERIFICATION OF PROTECTIVE BARRIER ELEMENT IN ACCORDANCE WITH BS 6180 : 1999 & BS 6399 PART 1 : 1996

<b>Certificate:</b> 26890/M/5 of 6	<b>Test Date:</b> 15 & 16 June 2004			
<b>Samples Received:</b> 14 June 2004	<b>Order Ref:</b> Letter of Instruction Dated 19 <sup>th</sup> May 2004			
<b>Client:</b> Balcony (UK) Limited	<b>Address:</b> 70 Maypole Road, Ashurst Wood, West Sussex, RH 19 3QY			
<b>Barrier Arrangement and Location</b>	<b>Test Arrangement Uniformly Distributed Load</b>	<b>Deflection* of Glass Panel under UDL Conditions of 0.36 kN force</b>	<b>Maximum Allowable Deflection* (L/65)</b>	<b>Comments</b>
Balcony System Type "1". Comprising three (8 mm) thick clear toughened straight glass infill panels. Sample Ref;- MK 237.	Test on Glass infill Panel via 600 x 600 mm square Indenter. Force of 1.0 kN m <sup>2</sup> applied to centre of panel.	3.0 mm (0.0 mm Permanent Displacement)	25.0 mm	Acceptable, displacement within BS requirement under uniformly distributed loading conditions.
<b>Remarks:</b> (1)*Deflection based on the average of three loading cycles. (2) The above straight middle glass infill panel in balustrade MK 237 complies with the requirements of BS 6180 : 1999, under UDL loading conditions.				

Lab Form: met100b.wpd

For Sandberg LLP:

Report Date: 24<sup>th</sup> June 2004

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**Simon R P Morris - Engineer**

Materials, samples and test specimens are retained for a period of 2 months from the issue of the final report.  
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

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<b>Certificate:</b> 26890/M/6 of 6	<b>Test Date:</b> 15 & 16 June 2004			
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<b>Client:</b> Balcony (UK) Limited	<b>Address:</b> 70 Maypole Road, Ashurst Wood, West Sussex, RH 19 3QY			
<b>Barrier Arrangement and Location</b>	<b>Test Arrangement Uniformly Distributed Load</b>	<b>Deflection* of Glass Panel under UDL Conditions of 0.36 kN force</b>	<b>Maximum Allowable Deflection* (L/65)</b>	<b>Comments</b>
Balcony System Type "2". Comprising three (8 mm) thick clear toughened straight glass infill panels. Sample Ref;- MK 238.	Test on Glass infill Panel via 600 x 600 mm square Indenter. Force of 1.0 kN m <sup>2</sup> applied to centre of panel	3.8 mm (0.0 mm Permanent Displacement)	25.0 mm	Acceptable, displacement within BS requirement under uniformly distributed loading conditions.
<b>Remarks:</b> (1)*Deflection based on the average of three loading cycles. (2) The above straight middle glass infill panel in balustrade MK 238 complies with the requirements of BS 6180 : 1999, under UDL loading conditions.				

Lab Form: met100b.wpd

For Sandberg LLP:

Report Date: 24<sup>th</sup> June 2004

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Simon R P Morris - Engineer

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