

James Fisher
Testing Services



TEST REPORT

No. IR5258

LOAD TESTING OF BALUSTRADE SYSTEM

MS 1500

Job No. PN13904

PREPARED BY TESTCONSULT
FOR

Makedoniki Panidis SA

11ht km Old National Road – Thesaloniki – Kilkis – PO box 111 – P.C. 570 08

Testconsult
11 Rufford Court, Woolston,
Warrington, Cheshire, WA1 4RF
T +44(0)1925 811683
www.testconsult.co.uk

3. RESULTS & FINDINGS

The numerical records of displacement along with charts of all three tests for the balustrade system are presented on a test certificate seen in Appendix – B. Results are also shown in the table below:

Table 2 – Results and certificate names of each balustrade system

Test	Average Maximum Load Achieved	Maximum Deflection Measured
Uniformly Distributed Line Load	0.98 kN/m	25 mm
Uniformly Distributed Load applied to infill	1.7 kN/m ²	25 mm
Point Load applied to infill	0.91 kN	25 mm

In conclusion to the results the above balustrade systems are of adequate strength and stiffness and can be used at:

1. Domestic and residential activities:
 - a) All areas within or serving exclusive one single family dwelling including stairs, landings, etc. but excluding external balconies and edges or roofs
 - b) Other residential, i.e. houses of multiple occupancy and balconies, including Juliette balconies and edges of roofs in single family dwellings.
2. Offices and work areas not included elsewhere, including storage areas:
 - a) Light access stairs and gangways not more than 600 mm wide.
 - b) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes.
 - c) Areas not susceptible to overcrowding in office and institutional buildings, also industrial and storage buildings except as given above
3. Areas without obstacles for moving people and not susceptible to overcrowding:
 - a) Stairs, landings, corridors, ramps
 - b) External balconies including Juliette balconies and edges of roofs. Footways and pavements within building curtilage adjacent to basement/sunken areas

For the above usage the balustrade systems are therefore considered to be satisfactory and meet the conditions stated in the aforementioned British Standards.

ALEXANDROS MARCHI MEKARI
Instrumentation Engineer
For and on behalf of TESTCONSULT



LABORATORY TEST REPORT
Horizontal Loading of Balustrade System

Project : Balustrade Test	Job No.: PN13904
Client : Makedoniki Panidis SA 11ht km Old National Road, Thessaloniki - Kilkis, PO Box 141, P.C. 57008	Report No.: IR5258
	Specification: BS 6180:2011
	Date Tested: 26/01/2018
Originator: Giannis Laskaris	Date Reported: 02/02/2018

Height of Balustrade (off finished floor) 1100 mm
Glass panel dimensions 1100 mm x 1000 mm x 21.50 mm
Distance between supports L N/A

Maximum allowable deflection

under line load 25 mm
uniformly distributed load 25 mm
point load 25 mm

Average Maximum Load Applied

0.99 kN/m
1.70 kN/m²
0.91 kN

Line Load

Test	Deflection (mm)	Bar	Load (kN)	Load (kN/m)
1	25.00	15.3	0.99	0.99
2	25.00	15.1	0.98	0.98
3	25.00	15.2	0.99	0.99

Average: 0.99 kN/m

Uniform Load

Test	Deflection (mm)	Bar	Load (kN)	Load (kN/m ²)
1	25.00	27.60	1.79	1.79
2	25.00	28.40	1.85	1.85
3	25.00	22.60	1.47	1.47

Average: 1.70 kN/m²

Point Load

Test	Deflection (mm)	Bar	Load (kN)
1	25.00	12.70	0.83
2	25.00	14.60	0.95
3	25.00	14.90	0.97

Average: 0.91 kN