

Project **Report for Edge testing
(Ref RSSL 001)**

Project No **8153/WS/Roo**

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SUMMARY

The **Medguard Standard, Folding and Inclined Edge Protection** (see Figure 1,2,3) the test were carried out on 19 October 2016 for Roof Safety Supplies Ltd, Fernhills House, Bury, BL9 5BJ

Passed Class A, Static loads with three metre feet spacing on horizontal concrete and 10 degrees incline plain with 90 degree return feet, the folding (see Figure 2) is free standing

OBJECTIVES

To test the Edge Protection on a concrete and 10 degrees incline surface to Temporary Edge Protection BS EN13374:2013 for Class A Static loads (section 4.1, 5.2.1)

General configurations



Figure 1 Medguard standard 3M feet



Figure 2 Medguard folding 2.5M feet, 3M long



Figure 3 Medguard inclined 3M feet

All the feet have rubber mats attached to the underside, The feet spacing is 3 Metres, the return ends have 1150 and 750 mm feet at 90 degrees (see Figure1).

The Medguard folding has 2.5Metre feet spacing with 3Metre horizontal poles and end closures (see Figure 2)

NO NETS OR ADVERTISING BANNERS ARE FITTED TO THIS EDGE PROTECTION

METHOD

Tests Required See (BS EN13374:2013 section 6.3.1 for general loading)

See (table 2) Fh1, Fh2 & Figure 8 & 9, FD & Figure 14, FH3 & Figure 13

Class A

1. Horizontal force (Fh1) +Q_{ww} top & mid rail max Deflection 55mm elastic
2. Vertical force (FD) 1.25 KN top rail (128kg)
3. Horizontal force parallel (Fh3) 200N*1.5=300N

See Appendix one for calculated test loads

A load cell is attached and the load applied, a hand held computer (see results) shows the load in Kg *9.81 for Newton's.

RESULTS



Test 1 Fh 1 top rail 38kg



Test 2 FD 160kg

(Calculated test load Fh1 34kg FD 128kg see appendix one)



Test 3 Fh3 44kg

Standard and inclined

Location	load in Kg	deflection in mm	comments
Return end (RE)	38	25	max 55mm deflection
Mid span (MS)	38	30	deflection of the tube

Folding

(with a pre load to take up the movement in the pins)

Return end (RE)	38	30
Mid span (MS)	38	30

Test 2 Vertical force 1.25 KN top rail (FD)

160kg Load at the centre of the span. When the load was removed the beam returned back only elastic deformation had taken place.

Test 3 Fh3 the Edge protection had no displacement under the 44 kg on a 3Metre run

Conclusion

The results for Fh1 can be seen and were well within the 55mm deflection limit for horizontal concrete and on a 10 degree incline plain. FD and Fh3 were tested well above the test loads.

Medguard Edge Protection:-

Standard , Inclined and Folding all passed to class A

Input leg spacing in A2 metres

3000 2 48 288000

3

vertical posts 1000 2 48 96000

toe board 3000 1 150 450000

load in N/M 9.216 153600 mm2

load in N/M 20.016 333600 with toe board mm2
 cf1=1.2 1.2

QWW 3.6864 N/m

QWW with toeB'D 8.0064 N/m

input length of run in metres 9

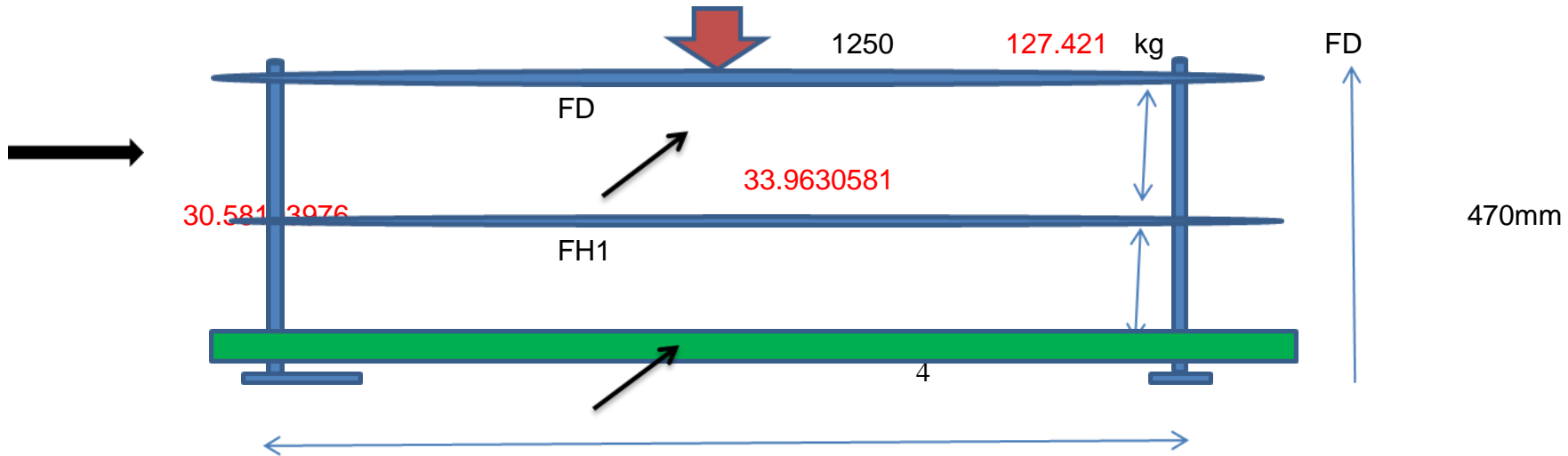
top rail(300N+qww) 300 333.1776 33.96306 kg

fh3 200n end pull 300 30.58104 kg

372.0576 37.92636 kg

1250 127.421 kg

QWW + FH1 without toe B'D
 FH3
 Qww+FH1 with toeB'D



37.92636086

470mm

FH1+tb

3 M feet

Alan baggott edge
protection 2016

for Roof Safety supplies ltd, Fernhills House, Bury, BL9 5BJ