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Specialist Testing Services

TEST CERTIFICATE

HANDRAIL TESTING IN ACCORDANCE WITH BS EN ISO 14122-3:2016

On behalf: **Grainger Tubolt Ltd**
Units A & B Meyrick Owen Way
The Dockyard
Pembroke Dock
Pembrokshire
SA72 6WS

INTERCLAMP ROOF EDGE PROTECTION SYSTEM

TEST DESCRIPTION: Load test of Interclamp Roof Edge Protection System.

REF NO: IR4952
JOB NO: J4923
DATE TESTED: 31/10/2016
CERTIFICATE DATE: 01/11/2016

TEST CRITERIA: The handrail was tested in accordance to BS EN ISO 14122-3:2016. Firstly the barrier was preloaded for 1 minute and after removal of the preload the zero datum reading was reset. The load for verification of usability (Fu) was applied for 1 minute. Once settlement was established and readings recorded, load was increased to the load for verification of strength (Fs) for one minute. For All loadings and procedures the methodologies followed were specified within the British Standard BS EN ISO 14122-3:2016.

Test Position	Maximum allowable deflection	Maximum allowable Permanent Deflection
Stanchion	30mm	0.3% of Height
Centre between 2 stanchions	30mm	0.3% of distance between stanchions

TEST DETAILS:

Barrier height: 1100 mm
Distance between Stanchion: 2000 mm

TEST RESULTS:

Test Position	**Deflection under load for verification of usability (mm)**	**Permanent Deformation after removal of load for verification of strength (mm)**
Stanchion	22.21	0.03
Centre between 2 stanchions	14.89	1.56

ANALYSIS:

This certificate concludes a second phase of testing where the barrier was tested in 2 opposing directions. This certificate includes the results for the least favorable orientation of barrier positioning where the supports only act as counter balance for the test forces.

On both tests the results of the displacements for the barriers' response to;

- Load for verification of usability (Fu).
- Residual deformation after removal of load for verification of strength (Fs).

Were found to be within the admissible limits in accordance with BS EN ISO 14122-3:2016.

In conclusion the tested Barrier is considered to be satisfactory and is in compliance with the conditions stated in the aforementioned British standard.

APPROVAL:

NAME: Elliot Cox
POSITION: Undergraduate Engineer