

Test Report No. 7191005257-MEC11/01-ATO
dated 13 May 2011



PSB Singapore

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SUBJECT:

Testing of Access Floor System.

TESTED FOR:

Everest Industries Limited
The Genesis, A-32, Mohan Cooperative Industrial Estate,
Mathura Road, New Delhi 110048, India.

Attn: Mr. Subrata Dutta

TEST METHOD:

BS EN 12825 : 2001 - "Raised Access Floors".

- 5.2 – Static Load
- 5.4 – Permanent Deformation Test On Element

SAMPLE DESCRIPTION:

The following samples were submitted Everest Industries Limited on 15th April 2010.

- 1) Five access floor panels, claimed to be "Fibre Cement Board Core" material floor panel (Refer to photo. 1 in Appendix). The nominal measured dimensions were 600mm(L) x 600mm(W) x 32mm(Thk). The samples consist of galvanised steel sheet of 0.5mm(Thk) on top and bottom of the panel and with a nominal gross weight of 21.5kg.
- 2) Twenty pedestal assemblies, claimed to be "FFH 350mm" references (Refer to photo. 2 in Appendix) with nominal measured dimensions as followed;
 - Pedestal head of 90mm(O.D) x 3.1mm(Thk) with hollow tube of 32mm(O.D) x 75mm(L) x 1.5mm(Thk) and PVC pedestal cap of 2.3mm(Thk).
 - Pedestal base plate of 100mm(L) x 100mm(W) x 2.1mm(Thk), with 25mm(Dia.) hollow pipe (Jack) 300mm(L) x 1.9mm(Thk) and a hexagonal nut.
- 3) Twenty stringers (Refer to photo. 3 in Appendix) with nominal measured dimensions of 535mm(L) x 30mm(W) x 32mm(H) x 1mm(Thk).
- 4) One packet of countersunk screws, nuts and washers (Refer to photo. 4 in appendix).
- 5) One bottle each of "Araldite AW 106" brand and "Hardener HV 953 IN" brand of adhesive (Refer to photo. 5 in Appendix) as bonding agent for the pedestal assemblies.



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TEST RESULTS:

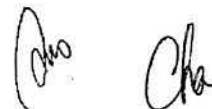
ENVIRONMENTAL CONDITIONS:

Temperature : 24°C
Humidity : 64%RH

Static Load Test

Sample Reference	" Fibre Cement Board Core" Material Floor Panel				BSEN 12825 : 2001 (Clause 4.1 & 4.2) Requirements
System height (mm)	350				Raised access floors are classified according to the ultimate load as given below: Class 1 : ≥4kN Class 2 : ≥6kN Class 3 : ≥8kN Class 4 : ≥9kN Class 5 : ≥10kN Class 6 : ≥12kN
Position of indenter	Centre	Centre of Edge	70mm Diagonal	* Point of Weakest	
Ultimate load (kN)	21.5	10.7	9.2	14.8	The working load is determined by the ultimate load divided by the safety factor of 2 or 3. The deflection produced are classified as below: Class A: 2.5mm Max. Class B: 3.0mm Max. Class C: 4.0mm Max.
Deflection at ultimate load (mm)	11.07	4.68	1.66	4.24	
Classification for ultimate load	Class 4				
Deflection at working load of 4.6kN (Safety factor of 2) (mm)	0.90 (Class A)				
Deflection at working load of 3.07kN (Safety factor of 3) (mm)	0.65 (Class A)				

- Note: 1) A new panel was used for each test.
2) The panel was supported with 4 stringers and pedestal assemblies base glued during testing.
3) "*" Point of weakest was located at about 200mm x 200mm from the corner of the panel.






TEST RESULTS (CONT'D):

Permanent Deformation Test On Element

Sample Reference	" Fibre Cement Board Core" Material Floor Panel	BSEN 12825 : 2001 (Clause: 4.2.4) Requirements
System height (mm)	350	The residual deflection is measured 5 minutes after the removal of the load and shall not exceed Max. 0.5mm.
Position of indenter	70mm Diagonal	
Deflection at specified working load of 360kg at 30min (mm)	1.45	
Residual deflection (mm)	0.19	

- Note: 1) After the completion of the static load test, a new panel was subjected to the weakest point (70mm Diagonal from the edge of the pedestal head) of the element in clause 5.4.5 for permanent deformation test on element.
2) The panel was supported with 4 stringers and pedestal assemblies base glued during testing.
3) The specified working load (360kg) was given by Everest Industries Limited.

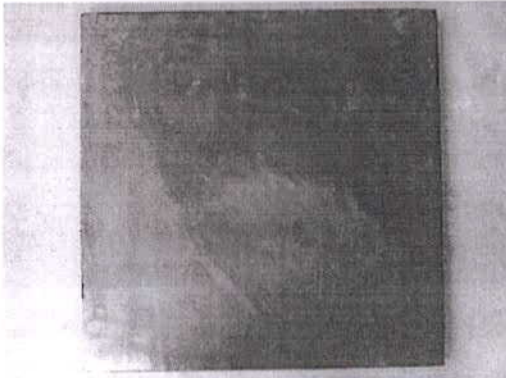


Andrew Teo
Engineer



Cha Ming Yang
Product Manager
Automotive and Industrial Products
Mechanical Centre

APPENDIX:



Front view of panel



Back view of panel

Photo. 1 : Access Floor Panel

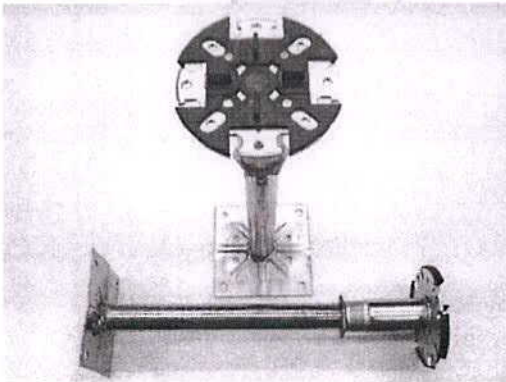


Photo. 2 : Pedestal Assembly



Photo. 3 : Stringer



Photo. 4 : Countersunk Screws, Nuts and Washers



Photo. 5 : Adhesive

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March 2010