

TECHNICAL REPORT



Maxwell Road, Stevenage,
Hertfordshire SG1 2EW, England
Telephone +44 (0) 1438 777700
Facsimilie +44 (0) 1438 777800
e-mail: info@fira.co.uk
website: www.fira.co.uk

Teacherboards 1985 Limited

Airedale Business Park
Skipton
North Yorkshire
BD23 2TZ

Our Ref: TMCMF26234
Your Ref: ON141714
Date: 13th February 2009
Delivery Date 6th January 2009
Test Dates: 16th January – 9th February 2009

For the attention of Mr Michael Braithwaite

SAMPLES FOR TEST

Samples for test:

Magnetic VES Whiteboard

White coated metal faced corrugated fibreboard core, aluminium extrusion frame, plastic insert corners.

TEST REQUIREMENT AND SUMMARY OF RESULTS

BS EN 14434: "Writing boards for educational institutions – Ergonomic, technical and safety requirements and their test methods".

Incorporating revision changes in prEN 14434:2008 (2008-09) (Revised and update edition of the current published 2004 standard).

Clause	Test	Result
Clause 7 - Surface tests and requirements for whiteboards		
7.2	Ability to write and erase	PASS
7.3	Scratch	PASS
7.4	Staining	PASS
7.5	Colour degradation (xenon arc light)	PASS
6	General Safety Requirements	PASS
Clause 9 - Structural tests and requirements (relevant tests for submitted item)		
9.1	Vertical static load	
9.1.3	Vertical downwards static load for all prominent parts	PASS
9.5	Surface deflection	PASS

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Registered Office:
Chiltern House, Stocking Lane,
Hughenden Valley, High Wycombe,
Buckinghamshire HP14 4ND, UK.

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PART A- SURFACE TESTS FOR WHITEBOARDS RESULTS: MAGNETIC VES WHITEBOARD

METHOD 7.2: ABILITY TO WRITE AND ERASE			
Revs	After Dry Cleaning	After Wet Cleaning	STATUS
500	No visible pen marks (5)	No visible pen marks (5)	PASS levels 1,2 and 3
1000	No visible pen marks (5)	No visible pen marks (5)	PASS levels 1,2 and 3
2000	No visible pen marks (5)	No visible pen marks (5)	PASS levels 1,2 and 3
COMMENTS			
Revs- indicate the number of revolutions that the test panel surface was abraded with a CS10 taber abrasion wheel. No visible red pen marking was evident over the wear tested areas after dry and wet cleaning and hence the test areas were rated 5 – no visible change. The sample therefore meets all test 'levels 1, 2 and 3' as defined in BSEN 14434.			
Note: the marker pen defined in prEN14434:2008 is 'red alcohol, acrylic tipped dry marker'. The pen used in test was that supplied by 'Teacherboards' reference - White Board Marker Centropen art number 8569, dry wipe non-toxic (approximately 5mm wide bevel tip).			

CLAUSE 7.3: SCRATCH TEST		
Minimum Load (Newtons)	Rating	STATUS
4N continuous scratch	3	PASS levels 1 & 2

CLAUSE 7.4: STAINING					
Staining Agent	Group	Procedure	Uncovered Rating	Covered Rating	STATUS
Acetone	1	A	5	5	PASS levels 1,2 & 3
Ethanol (96%)	1	A	5	5	PASS levels 1,2 & 3
Grease Remover	1	A	5	5	PASS levels 1,2 & 3
Ball Pen Ink	2	A	5	5	PASS levels 1,2 & 3
Fountain Pen Ink	2	A	5	5	PASS levels 1,2 & 3
Cleaning Agent	1	A	5	5	PASS levels 1,2 & 3
Permanent Marker Ink	2	A	5	5	PASS levels 1,2 & 3
No visible staining of the surface finish occurred and hence rated 5 – no visible change. The sample therefore meets level 1, 2 and 3.					
EN 14338 does not define some of the agents /solutions precisely- FIRA used the following:					
Grease Remover – window cleaner.					
Cleaning agent – 'cleaning solution' defined in BSEN 438:2005 clause 26.2 23% dodecylbenzene sulfonate, 10% alkyl aryl polyglycol ether, 67%water. However to comply with detergent regulations the following nearest equivalent solution was used - : Hostapur SAS-60- 38%, Genapol X080- 10%, Water to 100%. This formulation is considered to give similar detergency.					

CLAUSE 7.5: COLOUR CHANGE - XENON ARC LIGHT		
Specimen Contrast	Rating	STATUS
Greyscale rating	5 no visible change	PASS levels 1,2 & 3
Blue scale	Better than blue wool 6	PASS levels 1,2 & 3

CLAUSE 6: GENERAL SAFETY REQUIREMENTS	
The submitted board was a simple frame and panel construction. No sharp edges around frame , aluminium and plastics satisfactorily rounded, no pinching points	PASS

REPORT BY: L PRICE & V TAYLOR

V. Taylor

APPROVED BY: V TAYLOR (SECTION HEAD- MATERIALS TECHNOLOGY)

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PART B STRUCTURAL PERFORMANCE

(Reproduced from FIRA structures department test report TSCAF26603 dated 29th January 2009)

DESCRIPTION

Item: Magnetic VES Whiteboard

Supplied by: Teacher Boards

See Plates: One

Overall Dimensions: 3540 mm Wide x 1202 mm High x 20 mm Deep

Item	Description
Material / Thickness	10 mm Thick Magnetic Writing Board 20 mm Thick Aluminium Frame

All dimensions are approximate.

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BS EN 14434:2008 – WRITING BOARDS FOR EDUCATIONAL INSTITUTIONS — ERGONOMIC, TECHNICAL AND SAFETY REQUIREMENTS AND THEIR TEST METHODS.

The tests required were carried out in accordance with the Standard. Details of the loads applied and their positions of application are retained at FIRA and are available on request.

Item: Magnetic VES Whiteboard

Initial inspection: No apparent faults. Conditioning: N/R

CLAUSE	TEST	RESULT
9.1	VERTICAL STATIC LOAD	N/A
9.1.1	Vertical downwards static load for rail based systems and horizontally sliding boards	
9.1.2	Vertical downwards static load for winged boards and pivoting boards	
9.1.3	Vertical downwards static load for all prominent parts	
9.1.4	Vertical upwards static load	
9.2	DURABILITY OF MOVING ELEMENTS	N/A
9.2.1	Rail based systems	
9.2.2	Boards with rotating parts	
9.2.3	Sliding boards with transmission elements	
9.2.4	Power operated sliding boards	
9.3	TEST OF RIGIDITY	N/A
9.4	TEST OF STOPS	N/A
9.5	SURFACE DEFLECTION	PASS

CONCLUSION

The Magnetic VES Whiteboard, as previously described, successfully satisfied the applicable technical and safety test requirements from BS EN 14434.

TESTED BY: JAMES MOORE & LEWIS LENNARD
REPORTED BY: LEWIS LENNARD

APPROVED BY: MARK GOODCHILD (SECTION LEADER – CABINETS)

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Plate 1: Magnetic VES (Front View)