



School of Aeronautical,

Civil and Mechanical

Engineering

**Title: Tests to BS5234 Part 2 for
a Glass Partition System**

Client: PSL Workplace

Author: L.Weekes

Date: July 2002

Report No: LW/PSL/01

Tests for PSL workplace	Sheet	N/A
	Issue no	1
TITLE OF SECTION	Issue date	28/07/02
Test Records	Issued by	CM

GLASS PANEL PARTITION TESTS
PSL WORKPLACE
PARTITION TESTS TO BS5234 PART 2 : 1992

APPENDIX A – METHOD FOR DETERMINING PARTITION STIFFNESS

TEST NO: 1

DATE: 28 July 2002

DESCRIPTION OF PARTITION: 2.7 M high 12mm toughened glass with door set with corner return

SPECIFIC EQUIPMENT: N/A

SERIAL NO: N/A

CONDITIONING PERIOD: 1 Day

RELATIVE HUMIDITY: 68.7 %

TEMPERATURE: 20.4 °C

LOADING LOCATION: 1.5m from right hand column 1.5m high

RESULTS TABLE

Loading Sequence	Deflection Gauge Reading, mm
Datum	0
100N *	3.175
200N *	4.978
300N *	5.913
400N *	7.282
500N *	8.532
* Pause for 2 minutes at each increment, then record deflection	
Record residual deformation when partition has fully stabilised of after 1 hour, whichever is the sooner.	.482
OBSERVATIONS: eg. see c) Section 5 of Appendix 1	
None	

AFTER TEST RELATIVE HUMIDITY: 66 %

66 %

TEMPERATURE: 19.2 °C

Tested by: P.Latham	Checked by: L.Weekes
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SCHOOL OF ACUME	Sheet	N/A
Tests for PSL workplace	Issue no	1
TITLE OF SECTION	Issue date	28/07/02
Test Records	Issued by	LW

GLASS PANEL PARTITION TESTS
PSL WORKPLACE

APPENDIX A – METHOD FOR DETERMINING PARTITION STIFFNESS

TEST NO: 1

DATE: 28 July 2002

DESCRIPTION OF PARTITION: 2.7 M high 12mm toughened glass with door set with corner return

SPECIFIC EQUIPMENT: N/A

SERIAL NO: N/A

CONDITIONING PERIOD: 1 Day

RELATIVE HUMIDITY: 69 %

TEMPERATURE: 19.8 °C

LOADING LOCATION: 2m from left hand column 1.5m high

RESULTS TABLE

Loading Sequence	Deflection Gauge Reading, mm
Datum	0
100N *	1.93
200N *	4.56
300N *	5.609
400N *	7.642
500N *	9.778
* Pause for 2 minutes at each increment, then record deflection	
Record residual deformation when partition has fully stabilised or after 1 hour, whichever is the sooner.	.355
OBSERVATIONS: eg. see c) Section 5 of Appendix 1	
None	

AFTER TEST RELATIVE HUMIDITY: 68 % TEMPERATURE: 19.2 °C

Tested by: P.Latham	Checked by: L.Weekes
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School of ACME	Sheet	N/A
Tests for PSL Workplace	Issue no	1
	Issue date	28/07/02
TITLE OF SECTION	Issued by	LW
Test Records		

GLASS PANEL PARTITION TESTS: PSL WORKPLACE

**PARTITION TESTS TO BS5234 PART 2 : 1992
APPENDIX C – DETERMINATION OF RESISTANCE TO DAMAGE
BY IMPACT FROM A LARGE SOFT BODY**

TEST NO: 1

DATE: 28 July 2002

DESCRIPTION OF PARTITION: 2.7m high 12mm toughened glass

SPECIFIC EQUIPMENT: N/A

SERIAL NO:

CONDITIONING PERIOD: 3 hours

RELATIVE HUMIDITY: 76 %

TEMPERATURE: 20 °C

IMPACT ENERGY: 20 Nm

RESULTS TABLE – Straight Partition					
Position of Impact (1) = 2650 mm from corner and 1300 mm from the base of partition					
Gauge	Initial Reading	Actual Reading	Reading after 5 minutes	Max Deflection	Observations eg. see f) Sect C5 of Appendix 1
Back of specimen opposite impact	0.0	.08	.08	11.3	None

RESULTS TABLE – Straight Partition					
Position of Impact (2) = 3165 mm from corner and 1300 mm from the base of partition					
Gauge	Initial Reading	Actual Reading	Reading after 5 minutes	Max Deflection	Observations eg. see f) Sect C5 of Appendix 1
Back of specimen opposite impact	0.0	.01	.01	11.52	None

AFTER TEST RELATIVE HUMIDITY: 68.2 % TEMPERATURE: 19 °C

RESULTS TABLE – Corner Junction					
Position of Impact (3) = 200 mm from corner and mm from the base of partition					
Gauge	Initial Reading	Actual Reading	Reading after 5 minutes	Max Deflection	Observations eg. see f) Sect C5 of Appendix 1
Back of specimen opposite impact	0.0	0.07	0.07	1.88	None

RELATIVE HUMIDITY: 67.2 % TEMPERATURE: 19.2°C

Tested by: P.Latham	Checked by: L.Weekes
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Tests for PSL workplace	Sheet	N/A
	Issue no	1
TITLE OF SECTION	Issue date	28/07/02
Test Records	Issued by	LW

GLASS PANEL PARTITION TESTS
PSL WORKPLACE

PARTITION TESTS TO BS5234 PART 2 : 1992

APPENDIX G – METHOD FOR RESISTANCE TO CROWD PRESSURE

TEST NO: 1

DATE: 28 July 2002

DESCRIPTION OF PARTITION: 2.7 M high 12mm toughened glass with door set with corner return

SPECIFIC EQUIPMENT: 2.5m beam

SERIAL NO: N/A

CONDITIONING PERIOD: 1 Day

RELATIVE HUMIDITY: 61 %

TEMPERATURE: 18.9°C

LOADING LOCATION: 1.5m high, 0.25m from column and door set

RESULTS TABLE	
Loading Sequence	Deflection Gauge Reading, mm
Datum	0
.75 kN	6.18
1.5 kN	13.34
2.1 kN	21.89
0	.15
* Pause for 2 minutes at each increment, then record deflection	
Record residual deformation when partition has fully stabilised of after 1 hour, whichever is the sooner.	.1
OBSERVATIONS: eg. see c) Section 5 of Appendix 1 The test was halted at 2.1 kN due nature of the structure. It was deemed that to continue would be dangerous due to the magnitude of displacement.	

AFTER TEST RELATIVE HUMIDITY:

61.5 %

TEMPERATURE: 18.6 °C

Tested by: P.Latham	Checked by: L.Weekes
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