KOMFORT

Structural Stability

to BS 5234: Part 2: 1992

Summary of Performance

Document No. LS90 / STR2

Ls90 Reflections Partitioning System

Flush Bonded Double Glazed Construction with 90º Corner & Doorset

This is to confirm that the construction of the above partitioning system using pre-assembled **flush bonded glazed 6mm thick toughened safety glass** units as detailed in the Building Test Centre Reports No. **BTC 12471S** and **BTC 12721** (available on request), Komfort's data sheet **Ls90 STR/INST.2** and **summarised overleaf** has been tested in accordance with British Standard 5234: Part 2: 1992 and satisfied the criteria for structural stability achieving grade;

Panels / Door	Test Annexes	Performance Grade Achieved
Flush Double Glazed & Veneered Door	A, C, E, G	**Severe Duty**
	F (door slam)	**see note (2)**

Note

The structural stability tests conducted under BS 5234: Part 2: 1992 were originally designed to assess the strength and robustness of a solid partition. There is currently no defined test for a glass wall other than impact safety requirements to BS 6206 or BS EN 12600. The use of these tests demonstrate the stability conformity with BS 6180: and BS 6933: Part 1 under the requirement of Document 'K' Building Regulations.

For performance validation of the installed product this Summary of Performance must be accompanied by the signed Contractors Statement

Ls90 Reflections Partitioning System

Flush Bonded Double Glazed Construction with 90° Corner & Doorset

Summary of Results

KOMFORT

Test Report: **BTC 12471S** Test Date: **13 December 2002** Test Height: **2700mm**
BTC 12721S **26 March 2003** **2800mm**

grade compliance in accordance with BS 5234: Part 2: 1992											
Requirement of test	Test method Annex	Grade performance achieved (Pass / Fail)				Impact Energy	Load	Deflection (mm)		Damage
		Light duty	Medium duty	Heavy duty	Severe duty			Max	Residual	
Stiffness - On mullion	A	-	-	-	Pass	-	500N	6	0.5	None
- Middle of glass panel	A	-	-	-	Pass	-	500N	10	0.6	None
Surface damage by a small hard body impact:										
Straight glazed partition	-	-	-	-	see note (1)	-	-	-	-	-
Partition 90° junction	-	-	-	-	see note (1)	-	-	-	-	-
Resistance to damage by a large soft body impact:										
On mullion between glazed modules	C	-	-	-	Pass	100Nm	-	-	0.5	None
Middle of glass panel	C	-	-	-	Pass	100Nm	-	-	0.0	None
Partition 90° junction	C	-	-	-	Pass	100Nm	-	-	1.5	None
Perforation by small hard body impact:										
Straight glass partition	D	-	-	-	see note (1)	-	-	-	-	-
Partition 90° Junction	-	-	-	-	see note (1)	-	-	-	-	-
Resistance to structural damage by large soft body impact:										
On mullion between glazed modules	E	-	-	-	Pass	120Nm	-	-	-	None
Middle of glass panel	E	-	-	-	Pass	120Nm	-	-	-	None
Door slamming (BTC 12721) (2)	F	-	-	-	see note (2)	-	-	-	0.6	see note (2)
Crowd pressure	G						1,5KN/m	19.5	1.5	None
Lightweight pull out	K	not applicable to glazed					-	-	-	-
Lightweight pull down	J	not applicable to glazed					-	-	-	-
GRADE ACHIEVED	**Severe Duty**									

Tested Construction: Erected in a straight run 4500mm long x 2700mm (BTC 12471) and at 2800mm (BTC 12721) high with one fixed end and one free end. The test specimen included a doorset 900mm x 2040mm positioned 600mm from the fixed end, the door weight was 47.5kg(2). After the doorset the specimen comprised of 2 No. 1200mm wide and 1 No. 600mm wide flush glazed pre-assembled units using 6mm thick toughened (Class A) safety glass hot melt bonded all round to an aluminium frame that is fitted with glazing locking strips to vertical edges and hung either side of a 54mm vertical 2 part 1.2mm thick steel stud that is postioned in the head and floor tracks. Following the door test a 90° corner with 800mm long glazed return was erected.

(1) All the glass used was safety glass conforming to BS 6206 therefore ther is no requirement for the small hard body impact tests to be carried out.

(2) Door weight (BTC 12721) was increased to meet the requirement under standard to 60kg to enable higher grade (severe) slam test to be conducted. After 100 slams the door leading edge was rubbing on the door frame, but it had been noted before the test that the vertical gap between the door leading edge and the frame was under size, therefore with the correct working gaps between the frame and the door it would have been fully operational.

The above data must be read in conjunction with the test summary description given overleaf.
The information given is an extract of the test reports supplied by The Building Test Centre, East Leake, Loughborough.
BTC is a UKAS approved Test Laboratory.

Data Sheet No. Ls90/STR2 - 04/13

Certificate No FM25967

National Specifier Support Line Tel: 0871 781 2700 ◆ E-mail: tech@komfort.com ◆ Internet: www.komfort.com

Ls90 Reflections Partitioning System

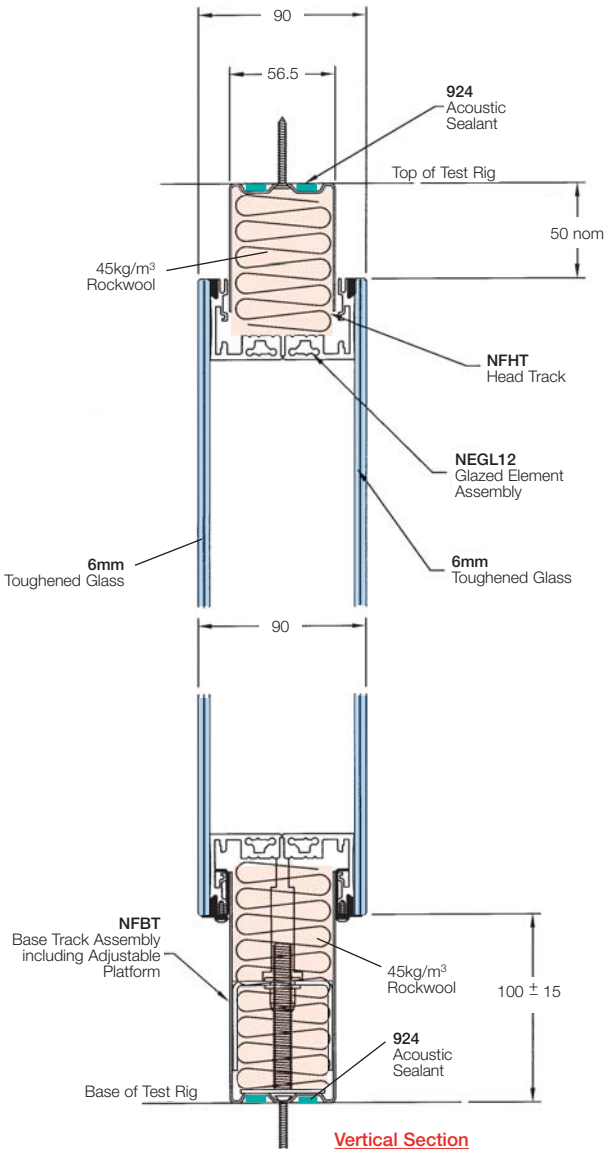
Flush Bonded Double Glazed Installed with 2 x 6mm Toughened Safety Glass

KOMFORT

Double Glazed Module
Corridor side: **6mm thick Toughened Glass**
Office side: **6mm thick Toughened Glass**

Maximum Construction Height: **2850mm**

Ls90 Glazed Construction :	**Double Glazed:** The construction comprised 2 No. flush glazed pre-assembled units (NEGL12) using safety glass combinations as detailed above hot melt bonded all round to an aluminium frame that is fitted with glazing locking strips (N90S21) to the vertical edges and hung either side of the 2 part steel stud assemble (NESS) positioned at nominal 1200mm centres. **Head:** The head tack (NFHT) had 2 strips of acoustic sealant (924) applied before then screw fixing in position using No.8 x 38mm long screws at 600 centres. **Base:** Floor Track Assembly (NFBT) comprising of a floor channel had 2 strips of acoustic sealant (924) applied on the base and was then screw fixed in position using No.8 x 38mm long screws at 600 centres. The inner adjustable base section was then inserted. **Abutments:** Tolerance Wall Abutment Assembly (NJWT). The back of inner channel was applied with acoustic sealent (924) then screw fixed using No.8 x 38mm long screws at 600 centres direct to the test rig aperture and the outer section is assembled direct to the wall channel with vertical stud. **Vertical Studs:** Are nominal 54mm wide 2 part 1.2mm thick mild steel assembled together and infilled with 45kg/m³ Rockwool. **Vertical Panel Joint:** PVCu Infill Gasket (NEJI)
Cavity Infill :	45kg/m³ Rockwool installed within the cavity with of the Tolerance Wall Abutment (NJWT). Into the Head Channel (NFHT) and the Base Track Assembly (NFBT) above the adjustable platform.

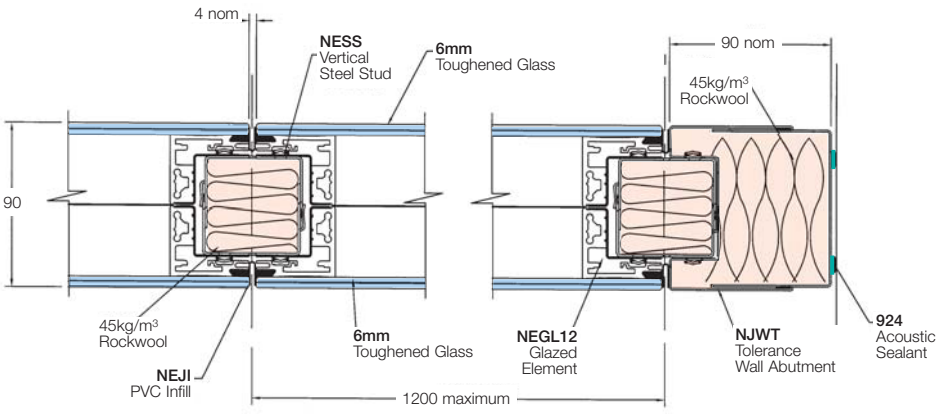


Vertical Section
Acoustic Test Construction

Notes:
This data sheet should be read in conjunction with Structural Summary of Performance Ls90 / STR2.

The tested construction other then the vertical stud did not include any cavity infill, seals or intumescent that would be required for acoustic and fire performance.

For details of the additional components required for acoustic and or fire performance applications see the Sound Reduction and Fire Resistance Summary of Performance data sheets.



Horizontal Section Acoustic Test Construction

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