



Structural Stability

to BS 5234: Part 2: 1992

Summary of Performance

Document No. LS90 / STR6

Ls90 Prism Partitioning System Double Glazed Construction with Double Glazed Glass Doorset and Overpanel

This is to confirm that the construction of the above partitioning system using pre-assembled **6mm thick toughened safety glass** units as detailed in the Building Test Centre Reports No. **BTC 17941S** (available on request), Komfort's data sheet **LS90 STR/INST.6** 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
Double Glazed & Double Glazed Glass Door	A, C, E, G	Severe Duty
	F (door slam)	Severe Duty ⁽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



Certificate No FM25967

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LS90/STR6 - 04/13

LS90 Prism Partitioning System

Double Glazed Hung Framed Construction with Double Glazed Glass Doorset and Overpanel

Summary of Results



Test Report: **BTC 17941S**

Test Date: **27 November 2012**

Test Height: **3000mm**

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 - Middle of glass panel	A	-	-	-	Pass	-	500N	6.20	0.25 ⁽³⁾	None
	A	-	-	-	Pass	-	500N	9.69	0.45 ⁽³⁾	None
Surface damage by a small hard body impact: Straight glazed partition	B	-	-	-	see note (1)	-	-	-	-	-
Resistance to damage by a large soft body impact: On mullion between glazed modules Middle of glass panel	C C	-	-	-	Pass Pass	100Nm 100Nm	- -	- -	0.10 0.00	None None
Perforation by small hard body impact: Straight glass partition	D	-	-	-	see note (1)	-	-	-	-	-
Resistance to structural damage by large soft body impact: On mullion between glazed modules Middle of glass panel	E E	-	-	-	Pass Pass	120Nm 120Nm	- -	- -	- -	None None
Door slamming ⁽²⁾	F	-	-	-	Pass ⁽²⁾	-	-	-	0.43	None
Crowd pressure	G						1.5KN/m	21.92	1.92 ⁽⁴⁾	None
Lightweight pull out	K	not applicable to glazed					-	-	-	-
Lightweight pull down	J	not applicable to glazed					-	-	-	-
GRADE ACHIEVED	Severe Duty									
Additional test carried out to meet the requirements of BS 6180 and BS 6399-1										
Horizontal UDL (on a glass panel between mullions at 1200mm high)						1.5KN/m	14.28	0.18 ⁽⁴⁾	None	
Tested Construction:	Erected in a straight run 4680mm long x 3000mm high with one fixed end and one free end. The test specimen included a double glazed glass doorset 900mm x 2700mm with overpanel positioned 600mm from the fixed end, the door weight was 84.12kg ⁽²⁾ . After the doorset the specimen comprised of 3 No. 1060mm wide pre-assembled glazed units using 6mm thick toughened safety glass secured in an all round aluminium. The glass door and overpanel were installed within an aluminium door frame with the door being hung on three number hinges. The glazed units were hung either side of the vertical steel studs that installed in the head and floor tracks.									
<p>(1) All the glass used was safety glass conforming to BS 6206 therefore there is no requirement for the small hard body impact tests to be carried out.</p> <p>(2) The Door weight was 84.12kg and is therefore in excess of the 60kg door weight requirement for the SEVERE grade slam test conducted under the standard.</p> <p>(3) Residual measurements were taken after 5 minutes of the pressure being released.</p> <p>(4) Residual measurements were taken after 2 minutes of the pressure being released.</p>										

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.



Ls90 Prism Partitioning System

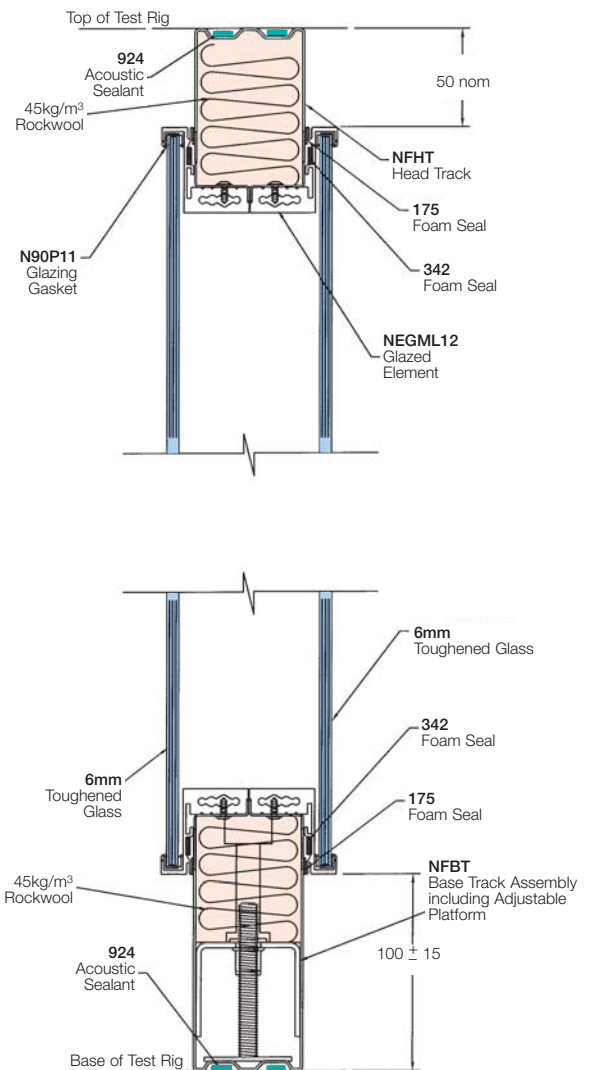
Double Glazed Hung Framed Construction

Installed with 2 x 6mm Toughened Safety Glass



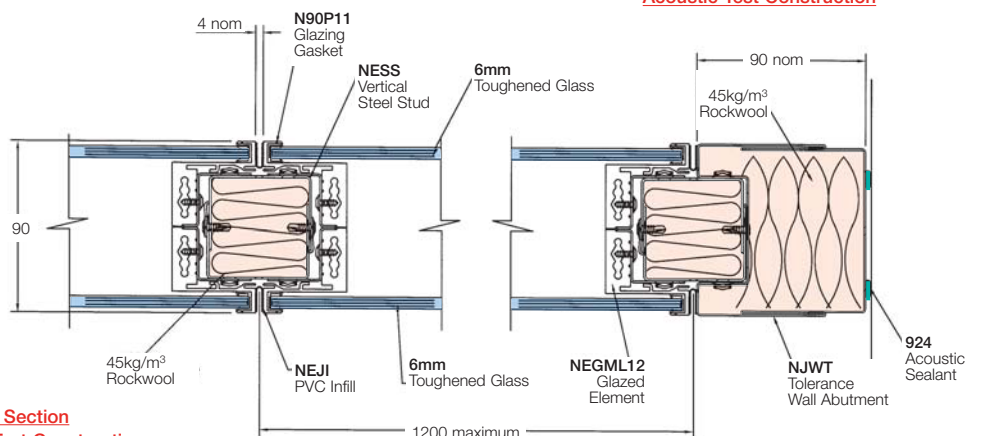
<p>Double Glazed Module Corridor side: 6mm thick Toughened Glass Office side: 6mm thick Toughened Glass</p>
<p>Maximum Construction Height: 3000mm</p>

<p>Ls90 Glazed Construction :</p>	<p>Double Glazed: Comprised 2 No. glazed pre-assembled units (NEGML12) using safety glass combinations as detailed above that are aluminium frame all round and fitted with glazing locking strips (N90S21) to the vertical edges. The glazed units are hung either side of the 2 part steel stud assemble (NESS) positioned at nominal 1.2m centres.</p> <p>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.</p> <p>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.</p> <p>Abutments: Tolerance Wall Abutment Assembly (NJWT). The back of inner channel was applied with acoustic sealant (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.</p> <p>Vertical Studs: Are nominal 54mm wide 2 part 1.2mm thick mild steel assembled together and infilled with 45kg/m³ Rockwool.</p> <p>Vertical Panel Joint: PVC^u Infill Gasket (NEJI)</p>
<p>Cavity Infill :</p>	<p>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.</p>



Notes:
 This data sheet should be read in conjunction with Structural Summary of Performance Ls90 / STR6.
 The tested construction other than 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



Vertical Section Acoustic Test Construction

