

POLAR partitioning system

Acoustic Performance Summary



Acoustic Performance

The following information is a summary of tests carried out in accordance with BS EN ISO 140-3 for measurements of airborne sound insulation of building elements and that the resulting Rw measurements are derived from BS EN ISO 717/1: 1997.

Glass Type / Combination		Glass to Glass Joint Construction	Construction Height mm ⁽¹⁾	Fire Performance Insul / Integ	Structural Performance (BS 5234)	Acoustic Performance	Acoustic Performance Summary
Corridor Side	Office Side						
Single Glazed							
10mm Toughened	---	bubble joint	3000	-	Heavy	33dB(Rw)	PO / S2
10.8mm Acoustic	---	bubble joint	3000	-	Heavy	38dB(Rw)	PO / S11
12mm Toughened	---	silicone or bubble joint	3200	-	Severe	33dB(Rw)	PO / S1
12.4mm Komfort Intumes.	---	two part dry joint]	3000	30 / 30	Severe	36dB(Rw)	PO / S8
12.8mm Acoustic	---	bubble joint	3000	-	Severe	38dB(Rw)	PO / S25
15mm Toughened	---	silicone joint	3300	-	Severe	35dB(Rw)	PO / S10
Double Glazed with ghost post							
10mm Toughened	6mm Toughened	dry joint into ghost post	3000	-	Heavy	42dB(Rw)	PO / S3
10mm Toughened	8mm Toughened	dry joint into ghost post	3000	-	Heavy	41dB(Rw)	PO / S3
10mm Toughened	10mm Toughened	dry joint into ghost post	3000	-	Heavy	41dB(Rw)	PO / S3
12mm Toughened	10mm Toughened	dry joint into ghost post	3300	-	Severe	44dB(Rw)	PO / S12
12mm Toughened	10.8mm Acoustic	dry joint into ghost post	3300	-	Severe	46dB(Rw)	PO / S29
12.8mm Acoustic	10mm Toughened	dry joint into ghost post	3300	-	Severe	45dB(Rw)	PO / S30
12.8mm Stadip Silence	10mm Toughened	dry joint into ghost post	3300	-	Severe	45dB(Rw) ⁽²⁾	PO / S9
12.8mm Acoustic	10.8mm Acoustic	dry joint into ghost post	3300	-	Severe	49dB(Rw)	PO / S16
12.8mm Acoustic	12.8mm Acoustic	dry joint into ghost post	3300	-	Severe	47dB(Rw)	PO / S32
Polar Vision double glazed without ghost post							
12mm Toughened	10mm Toughened	bubble joint (<i>no ghost post</i>)	3000	-	Heavy	43dB(Rw) ⁽²⁾	PO / S18
12.8mm Acoustic	10.8mm Acoustic	bubble joint (<i>no ghost post</i>)	3000	-	Heavy	48dB(Rw) ⁽²⁾	PO / S19
12.4mm Komfort Intumes.	10mm Toughened	two part dry joint (<i>no ghost post</i>)	3000	30 / 30	Heavy	45dB(Rw) ⁽²⁾	PO / S7
PolarTec double glazed							
12.4mm Komfort Intumes.	10mm Toughened	dry joint into ghost post with deflection head	3000	30 / 30	Severe	46dB(Rw)	PO / S6
12.4mm Komfort Intumes.	10mm Toughened	dry joint into ghost post without deflection head	3000	30 / 30	Severe	46dB(Rw)	PO / S6
12.4mm Komfort Intumes.	10.8mm Acoustic	dry joint into ghost post with deflection head	3000	30 / 30	Severe	47dB(Rw)	PO / S21
12.4mm Komfort Intumes.	12.8mm Acoustic	dry joint into ghost post without deflection head	3000	30 / 30	Severe	46dB(Rw)	PO / S33

The Performance Summary colour indicated the following:

■ = Data issued ■ = Data available, to be issued ✖ = Data not available,

NOTE

⁽¹⁾ The construction heights given are guidance for internal office construction subject to design layout required. Long continuous straight runs without dividing walls will effect the construction height limits.

⁽²⁾ The performance rating stated has been assessed based on the difference between the systems known results and other achieved test results.

POLAR partitioning system

Acoustic Performance Summary



Glass Type & Thickness	Door Frame Type / Code	Hinges Type / Code	Door frame Seals	Door Seals	Threshold Seal	Lock	Vision Panel	Acoustic Performance	Acoustic Performance Summary
Glass Doorsets									
12mm Toughened	aluminium - DGP3	pivot hinges - V.509	DGP21	none	none	patch	n/a	28dB(Rw)	PO / S4
12mm Toughened	aluminium - DGP3	pivot hinges - V.509	DGP21	none	sealant	patch	n/a	32dB(Rw)	PO / S4
12mm Toughened	none	Sliding - Dorma RS120	none	none	n/a	none	n/a	19dB(Rw)	PO / S5
12mm Toughened	none	Sliding - Dorma RS120	none	SJ27	n/a	none	n/a	25dB(Rw)	PO / S5
12mm Toughened	aluminium - SJ35	patch hinge - V505.1	SJ37	none	none	patch	n/a	28dB(Rw)	PO / S28
12mm Toughened	aluminium - SJ35	patch hinge - V505.1	SJ37	none	brush	patch	n/a	31dB(Rw)	PO / S31
12mm Toughened	aluminium - PSQ4	patch hinge - V505.1	PSQ20	none	none	patch	n/a	24dB(Rw)	
12mm Toughened	aluminium - PSQ4	patch hinge - V505.1	PSQ20	none	brush	patch	n/a	24dB(Rw)	
12 / 6mm Laminated	aluminium - SJ35	patch hinge - V505.1	SJ37 / 5581	none	none	patch	n/a	29dB(Rw)	--
12 / 6mm Laminated	aluminium - SJ35	patch hinge - V505.1	SJ37 / 5581	none	brush	patch	n/a	34dB(Rw)	--
15mm Toughened	aluminium - SJ35	patch hinge - V505.1	SJ37	none	none	patch	n/a	29dB(Rw)	--
15mm Toughened	aluminium - SJ35	patch hinge - V505.1	SJ37	none	brush	patch	n/a	33dB(Rw)	--
Timber Doorsets									
44mm Solid core	aluminium - SJ35	Steel lift off - 582	SJ37	none	565	574E	none	32dB(Rw)	PO / S23
44mm Solid core	aluminium - SJ35	Steel lift off - 582	2 x SJ37	Flexifin	565	574E	none	35dB(Rw)	PO / S26
44mm Solid core	aluminium - SJ35	Steel lift off - 582	SJ37	none	565	574E	461.S	32dB(Rw)	PO / S24
54mm Solid core	aluminium - SJ35	Steel lift off - 582	SJ37	none	none	574E	full length	33dB(Rw)	PO / S27
44mm Solid core	aluminium - PSQ4	Steel lift off - 582	PSQ20	none	565	574E	none	30dB(Rw)	

The Performance Summary colour indicated the following:

■ = Data issued ■ = Data available, to be issued ✗ = Data not available,

NOTE

- (1) The construction heights given are guidance for internal office construction subject to design layout required. Long continuous straight runs without dividing walls will effect the construction height limits.
- (2) The performance rating stated has been assessed based on the difference between the systems known results and other achieved test results.

