

Acoustic Sealing System Data for Non-Rated Door Assemblies

Sealing System	STC	RW	Centre Frequency (Hertz) / STL (dB)																	
			100	125	160	200	250	315	400	500	630	800	1K	1.25	1.6	2K	2.5	3.15	4K	5K

35mm Single Door in Single Frame

No Seals	20	20	13	17	17	19	20	20	20	20	20	21	21	22	22	20	18	19	19	18
*Fully Caulked (with mastic)	31	30	20	24	22	26	23	25	24	24	26	27	30	32	35	37	40	41	43	44
IS1212 + IS8011si (FF / SM)	30	30	19	24	22	26	23	25	24	24	26	27	29	31	34	35	37	38	40	40
IS1515 + IS8090si (FF / SM)	30	30	19	24	22	26	23	25	24	24	26	27	29	31	34	35	37	38	40	40
IS7080si + IS8090si (FF / SM)	30	30	19	23	21	26	23	25	24	24	26	26	29	32	35	37	40	39	43	44

40mm Single Door in Single Frame

No Seals	20	21	16	17	19	20	22	21	21	21	22	21	22	23	24	20	17	17	19	18
*Fully Caulked (with mastic)	33	32	22	24	28	30	27	26	28	27	27	28	31	34	37	38	41	43	44	46
IS1212 + IS8010si (FM)	31	31	22	24	27	30	27	26	28	27	27	27	28	32	34	35	36	39	41	41
IS1212 + IS8011si (FF)	32	32	21	26	29	31	31	31	32	31	29	27	28	31	34	35	36	39	40	41
IS7025si + IS8010si (FM)	31	30	21	24	27	30	27	26	28	27	27	28	27	30	32	35	37	40	40	41
IS7025si + IS8011si (FF)	32	32	21	28	28	32	33	33	33	33	31	28	27	30	32	34	37	40	40	41
IS7080si + IS8010si (FM)	31	30	22	24	27	30	27	26	28	27	27	27	28	29	33	35	37	39	38	41
IS7080si + IS8090si (FF / SM)	32	32	21	23	25	29	27	26	28	27	27	27	29	34	36	38	41	42	44	45
IS7090si + IS8090si (FF / SM)	31	30	20	24	27	30	27	26	28	27	27	27	28	30	32	35	38	39	35	37
IS7190si + IS8090si (FF / SM)	31	30	20	24	27	30	27	26	28	27	27	27	28	30	32	35	38	39	35	37
IS7090si + IS8100si (FM)	30	30	19	24	27	30	27	26	28	27	27	27	28	30	32	35	38	39	35	37
IS7190si + IS8100si (FM)	30	30	19	24	27	30	27	26	28	27	27	27	28	30	32	35	38	39	35	37

Acoustic Sealing System Data for Non-Rated Door Assemblies (cont'd)

Sealing System	STC	RW	Centre Frequency (Hertz) / STL (dB)																	
			100	125	160	200	250	315	400	500	630	800	1K	1.25	1.6	2K	2.5	3.15	4K	5K

35mm Double Doors (Pairs)

No Seals	20	20	13	17	17	19	20	20	20	20	20	21	21	22	22	20	18	19	19	18
*Fully Caulked (with mastic)	31	30	20	24	22	26	23	25	24	24	26	27	30	32	35	37	40	41	43	44
IS1212 + IS7061 + IS8011si	30	30	20	24	22	26	23	25	24	24	26	27	29	31	33	35	36	37	39	39
IS1212 + IS7071si + IS8011si	30	30	19	24	22	25	23	24	24	24	26	27	29	31	33	35	36	35	36	37
IS7025si + IS7061 + IS8090si	30	30	20	24	22	26	23	25	24	24	26	27	30	32	34	35	37	37	39	39
IS7025si + IS7071si + IS8090si	30	30	19	24	22	25	23	25	24	24	26	27	30	32	34	35	37	35	36	37

40mm Double Doors (Pairs)

No Seals	20	21	16	17	19	20	22	21	21	21	22	21	22	23	24	20	17	17	19	18
*Fully Caulked (with mastic)	33	32	22	24	28	30	27	26	28	27	27	28	31	34	37	38	41	43	44	46
IS1212 + IS7061 + IS8011si	31	31	21	24	24	27	26	24	27	27	27	28	30	34	35	36	35	34	34	35
IS1212 + IS7071si + IS8011si	31	31	21	24	26	28	27	25	28	27	27	28	29	32	34	36	36	36	36	38
IS7025si + IS7061 + IS8090si	31	31	22	24	26	29	27	25	28	27	27	28	29	33	34	36	38	39	39	39
IS7025si + IS7071si + IS8090si	31	31	21	24	26	28	27	25	28	27	27	28	29	33	34	36	38	36	36	37
IS7190si + IS8100si (FM)	30	30	19	24	27	30	27	26	28	27	27	27	28	30	32	35	38	39	35	37

* A fully caulked door represents the theoretical maximum a door can achieve.

Kilargo has conducted an extensive testing program of door panels and door seals at the N.A.T.A accredited Acoustic Facilities of RMIT University Melbourne. Tests were performed in accordance with Australian Standard AS1191:2002 and ISO 140-3:1995. The door systems tested included standard commercially available 35mm and 40mm (2040mm x 820mm) solid core timber doors.

Definitions

FF: Face Fixed **SM:** Semi-Mortised **FM:** Fully-Mortised