



Acoustic Sealing Systems

Butt Hinged Doors
Bulkhead Sealing Systems
Interconnecting Doors
Sliding Doors
Pivot Doors

www.raven.com.au



Since 1950, our name and
reputation is your guarantee of
reliability and quality.





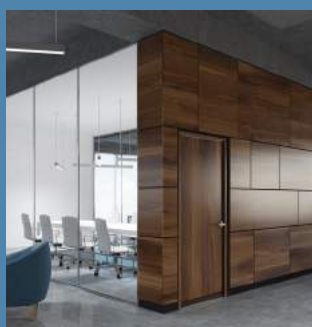
General

About Raven	2
Certified Acoustic Testing	4
Selecting an Acoustic Sealing System	6
Building Code Regulations	60
Application Icons	61
Quick Product Reference	62
Index	68



Rw30 - 33 Acoustic Sealing Systems for Solid Core Timber Doors

Single Door Sealing Systems	12
Double Door Sealing Systems	22



Rw34 - 40 Acoustic Sealing Systems for Proprietary Doors

Single Door Sealing Systems	32
-----------------------------	----



Rw41 - 50+ Acoustic Sealing Systems for Proprietary Doors

Single Door Sealing Systems	42
Double Door Sealing Systems	48



Acoustic Sealing Systems for Bulkhead, Interconnecting, Sliding and Pivot Doors

Bulkhead Sealing Systems - Single Doors	52
Bulkhead Sealing Systems - Double Doors	54
Interconnecting Door Sealing Systems	56
Sliding Door Sealing Systems	58
Pivot Door Sealing Systems	59



Service and Advice You Can Trust

When architects, engineers and builders are faced with door and window sealing challenges in design, compliance or function, they turn to Raven.

With a long list of patents and design registrations, Raven has developed much of the technology and led many of the advances in weather, acoustic, fire and smoke sealing systems. This is why you can rely on Raven for the best advice – after all, this is how many of our innovative products were born.

We have a team of specialists on-hand to provide expert advice to assist with developing the most suitable and cost effective solutions to even the most challenging problems. With 70 years in manufacturing and supporting the building industry, Raven remains at the forefront; Raven understands its complexities, challenges and creative requirements.

For informative and professional support, please telephone 1800 888 123 or email our technical assistance team at; tech.advice@raven.com.au.

Solutions on Your Doorstep

With modern despatch centres in Australia and Asia, we can deliver tailored sealing systems around the corner or across the globe. Raven's advanced ISO9001 quality management production systems can build and deliver colour matched products weeks ahead of other manufacturers.

Our network of distributors and transport systems can deliver anywhere in the world from desert mining sites in outback Australia, mid ocean oil and gas rigs, Antarctic research stations to the bustling cities of London, Dubai or Shanghai.

So when you call on Raven to deliver the ideal sealing system – you can be sure that's exactly what we will do.

Our Name is Your Guarantee

We will never put our name to a product until we are fully satisfied that it is not just easy to fit and highly durable, but it can withstand the appropriate extremes and complies with the latest building code regulations and standards.

Since 1950, our name and reputation is your guarantee of reliability and quality.



Architectural Catalogue

Visit www.raven.com.au to download the latest Raven architectural product catalogue

Quality Control That Sets the Standards

Our commitment to quality extends from research, development and testing through to manufacture, delivery, ease of application, durability and after sales service, regardless of the project size or complexity.

With a professional team of engineers, designers and international certified testing facilities; Raven is the brand that architects, designers, engineers and builders can rely on.

Every Raven seal is rigorously assessed and tested to meet the most demanding Australian and international standards, including life cycle performance from the prototype phase and construction through to batch testing of the final manufactured product. Raven maintains control over every aspect of its range carefully selecting materials and suppliers to ensure a superior end product. We also take our environmental responsibility just as seriously, operating to environmental ISO 14001 standards.

Raven's focus on innovation has provided sealing solutions for the building industry for decades. Our commitment to our products has meant the development of:

- ISO9001 quality management system accreditation
- NATA accredited laboratory testing facilities to Australian and international standards
- Ecospecifier global verified
- Operates to EMS ISO14001
- OH&S AS/NZS4801
- Australian Design awards and a library of international patents and design registrations.





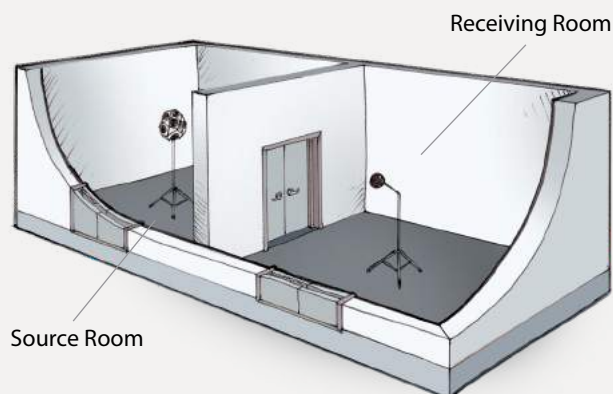
State of the Art Acoustics Laboratory

Internationally recognised laboratories test Raven sealed door assemblies to AS 1191, ISO 140-3 or ISO 10140 series standards with ratings to ISO 717-1.

The test methods used to establish the sound attenuation ability of a door set is AS 1191, ISO 140 series and recently EN ISO 10140 series standards. Test data from any one of these test methods can be used in EN ISO 717-1 which provides a single number rating across a spectrum of frequencies for the sound attenuation performance of the building element. Typically R_w is used for door sets that cover frequencies from 100Hz to 3150Hz.

Test methods involve constructing two rooms separated with an acoustically isolated wall and a Raven sealed door set. Sound waves are generated on one side (the source room) and measurements of the sound pressure levels are taken in both rooms. This acoustic test is performed with an unsealed door set, fully caulked and then tested with Raven seals. The sound transmission loss for each frequency is measured and from this, the R_w is derived. The R_w is an expression of the sound insulation performance or sound transmission loss. The higher the R_w rating the more sound energy is stopped by the Raven sealed door set.

Perimeter seals, astragal seals, door bottom seals and threshold plates are tested as applicable to reflect real world practice. Raven has included tabulated data results at varying levels for a range of door types with each Raven sealing configuration. This will assist correct seal and door type selection ensuring a predictable acoustic performance of the door assembly.



Raven Acoustic Sealing Systems

Reducing the amount of sound that passes through a door set is a common application for Raven seals. Sealing door gaps is of prime importance when helping to reduce the amount of sound entering or leaving a room or building. Small unsealed gaps around doors will significantly reduce the acoustic performance of the door assembly. A Raven door sealing system is proven to help doors perform at their acoustic best while the doors remain fully operational.

Raven acoustic seals help protect buildings from external noise, such as traffic noise from roads, railways or airports. They also help protect rooms from airborne noise generated within a building. Such as, hotel passageways, theatres, cinemas, crèches and patient surgeries, stairwells, inter-connect rooms, adjoining apartments, plant and machinery.



Improving R_w Ratings

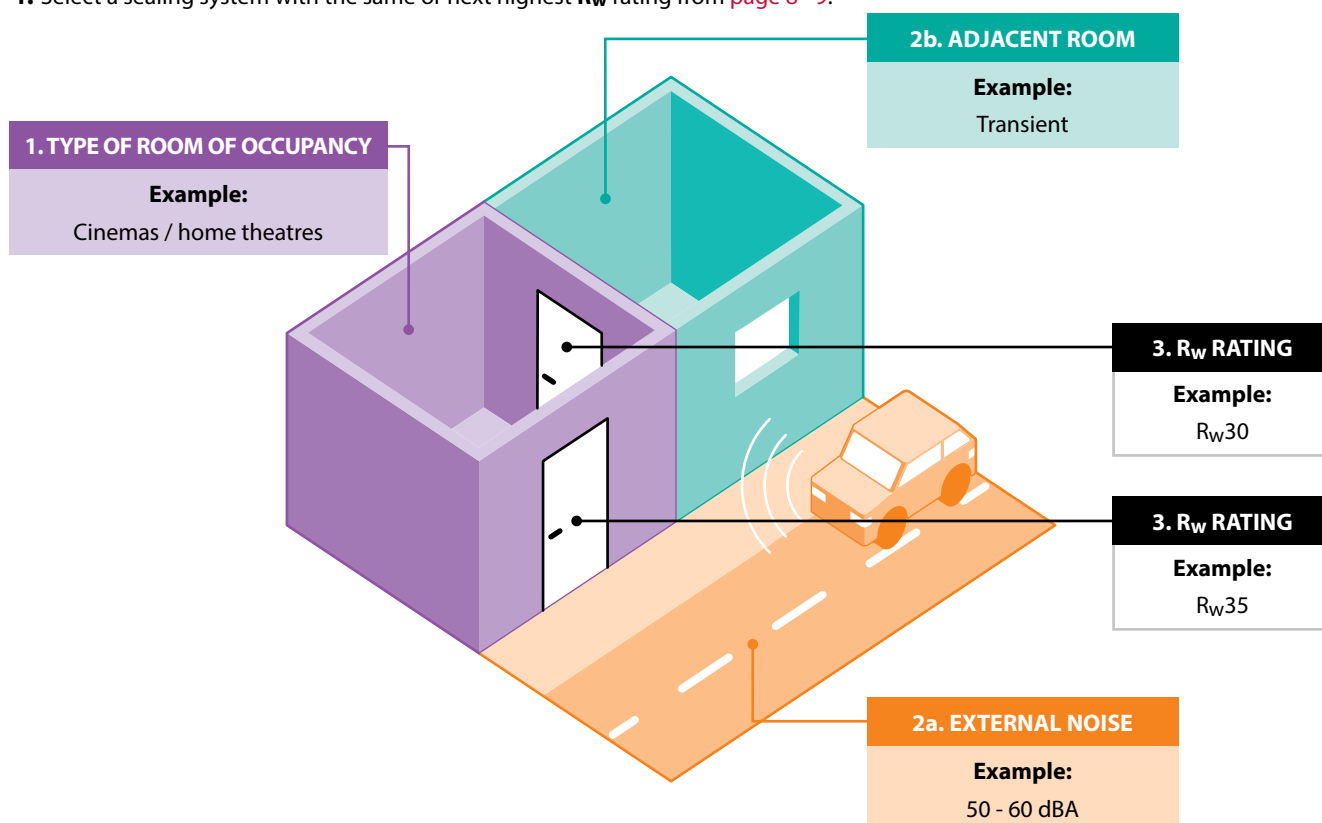
It should be considered that the R_w rating of a door set is only as good as the sum of its parts, i.e. the R_w value of the door set, fitted with Raven acoustic seals and the wall in which the door assembly is fitted. The use of soft absorbent furnishings within a room will also help absorb unwanted noise. All these measures will improve the acoustic attenuation of the room.

Typically, when Raven acoustic seals are fitted to timber solid core doors the R_w rating of the door assembly is increased from around R_w16 up to R_w32 . When the assembly is placed into an R_w55 wall, the overall rating of the door assembly and wall combination drops as a ratio to area. The larger the wall area the less the combined R_w rating will drop.

Make the Right Selection

This selection guide is to aid architects, engineers and builders in making the right choice of door and Raven sealing system to suit the room. The selection of the **R_w rating** of the door sealing system is based on achieving the design sound level (LAeq) in the room as recommended in AS/NZS 2107:2016.

1. Select the **TYPE OF ROOM OF OCCUPANCY** from the table opposite.
2. Find at the top of the table, the level of either:
 - a. **EXTERNAL NOISE**, OR
 - b. **ADJACENT ROOM**
3. Both of these criteria will then find the required **R_w** rating for the door sealing system.
4. Select a sealing system with the same or next highest **R_w** rating from [page 8 - 9](#).



Glossary

- LAeq** LAeq is the A-weighted equivalent continuous sound level in decibels measured over a stated period of time.
- dB** Decibels are a unit used to measure the intensity of a sound by comparing it with a given level on a logarithmic scale.
- dBA** A-weighted decibels are an expression of the relative loudness of sounds in air as perceived by the human ear.
- R_w** The R_w is a single number quantity in decibels of an assembly's ability to resist airborne sound transfer at the frequencies of 100Hz to 3150Hz. The higher the R_w rating the more sound energy is stopped by the Raven sealed door set.

1. TYPE OF ROOM OF OCCUPANCY	2a. EXTERNAL NOISE		
	40 - 50 dBA <i>e.g. Quiet residential area with distant traffic noise / rainfall / creeks</i>	50 - 60 dBA <i>e.g. Urban area with traffic noise / distant train noise / quiet restaurants</i>	60 - 70 dBA <i>e.g. Urban area with significant traffic noise / retail activity / busy restaurants / industrial noise</i>
	2b. ADJACENT ROOM		
	40 - 50 dBA Transient <i>e.g. Corridors</i>	50 - 60 dBA Occupied <i>e.g. Offices / Classrooms</i>	60 - 70 dBA Occupied / Unoccupied <i>e.g. Music / Factories</i>
3. REQUIRED R_w RATING OF DOOR SEALING SYSTEM			
- Carparks - Control rooms - Factories	R_w22	R_w25	R_w28
- Bars and lounges - Corridors and lobbies - Food courts - Service areas / utility rooms - Shopping malls / supermarkets - Stores	R_w25	R_w28	R_w30
- Airports - Apartments¹ - Art studios - Boarding house rooms¹ - Cafés - Guest house rooms¹ - Gyms - Hotel rooms / motel rooms¹ - Intensive care wards - Laboratories - Libraries - Computer rooms - Living areas¹ - Meeting rooms - Offices - Recovery rooms	R_w30	R_w30	R_w35
- Auditoriums - Bedrooms / sleeping areas¹ - Board rooms - Cinemas / home theatres - Classrooms - Consulting rooms - Convention centres - Court rooms - Delivery suites - Drama studios - Executive offices - Places of worship - Procedure rooms	R_w30	R_w35	R_w40
- Drama studios² - Film or television studios² - Music practice / studio rooms² - Music recording studios² - Sound stages² - Voice over booth²	R_w35+	R_w40	$R_w43 - 45$

¹ To be used with this guide for external door sealing solutions only. Refer NCC Part F5.5 (b) [page 60](#).

² Rating of acoustic door to be acoustically designed by a suitably qualified acoustic engineer.

It must be noted that this table does not calculate the end design sound level (LAeq,t), but only the minimum required R_w rating of a door set.

It must also be noted that this table is a guide only and is not to take precedence over local building codes or standards. Consultation with an acoustic engineer should be considered when specifying solutions for noise problems.

Selecting an Acoustic Sealing System



General

R _w	RAVEN SEALING SYSTEMS	DOOR			PAGE	TEST
		Type	Configuration	Thickness		
R _w 30 - 33 Acoustic Sealing Systems	RP10 / RP10Si RP99Si	Butt Hinged	Single	35mm	12	002
	RP78Si RP8Si	Butt Hinged	Single	35mm	13	007
	RP78Si RP35Si	Butt Hinged	Single	35mm	13	065
	RP10Si RP8Si	Butt Hinged	Single	40mm	12	064
	RP94Si RP8Si	Butt Hinged	Single	44mm	14	022
	RP94Si RP99Si	Butt Hinged	Single	44mm	14	023
	RP10Si RP126Si RP16Si	Butt Hinged	Double	45mm	22	071
	RP10Si RP128Si RP71Si	Butt Hinged	Double	45mm	22	035
	RP24 RP38 RP71	Butt Hinged	Double	45mm	23	072
	RP24Si RP38Si RP16Si	Butt Hinged	Double	45mm	23	037
	RP44Si RP127Si RP71Si	Butt Hinged	Double	45mm	24	073
	RP84Si RP126Si RP16Si	Butt Hinged	Double	45mm	24	038
	RP84Si RP128Si RP71Si	Butt Hinged	Double	45mm	25	040
	RP84Si RP8Si RP71	Butt Hinged	Double	45mm	25	075
	RP87HSi RP126Si RP16Si	Butt Hinged	Double	45mm	26	076
	RP120 RP8Si	Butt Hinged	Single	44mm	15	024
	RP84Si RP127Si RP71Si	Butt Hinged	Double	45mm	26	039
	RP10 / RP10Si RP99Si	Butt Hinged	Single	44mm	15	012
	RP10 / RP10Si RP99Si	Butt Hinged	Single	44mm	16	013
	RP24 RP38	Butt Hinged	Single	44mm	17	015
	RP24 RP70	Butt Hinged	Single	44mm	17	016
	RP47Si RP38	Butt Hinged	Single	44mm	18	017
	RP47Si RP70	Butt Hinged	Single	44mm	18	018
	RP93Si RP99Si	Butt Hinged	Single	44mm	19	021
	RP120 RP38	Butt Hinged	Single	44mm	19	067
	RP10Si RP127Si	Butt Hinged	Single	48mm	16	066
	RP10 / RP10Si RP99Si RP16Si	Butt Hinged	Double	44mm	27	031
	RP10 / RP10Si RP99Si RP71Si	Butt Hinged	Double	44mm	27	033
	RP10 / RP10Si RP99Si RP85	Butt Hinged	Double	44mm	28	034
	RP78Si RP8Si	Butt Hinged	Single	40mm	20	070
	RP530 RP38	Butt Hinged	Single	50mm	20	068
	RP530 RP70	Butt Hinged	Single	50mm	21	069
R _w 34 - 40 Acoustic Sealing Systems	RP78Si RP530 RP70	Butt Hinged	Single	50mm	32	077
	RP78Si RP124 RP8Si	Butt Hinged	Single	35mm	33	056
	RP120 RP520 RP8Si RP99Si	Butt Hinged	Single	44mm	33	079
	RP10Si RP127Si	Butt Hinged	Single	68mm	32	078
	RP10Si RP128Si	Butt Hinged	Single	35mm	34	053
	RP24Si RP38Si	Butt Hinged	Single	35mm	35	082
	RP78Si RP8Si	Butt Hinged	Single	35mm	36	083
	RP120 RP520 RP38 RP99Si	Butt Hinged	Single	44mm	34	080
	RP24Si RP127Si RP126Si	Butt Hinged	Single	48mm	35	081
	RP120 RP127Si	Butt Hinged	Single	48mm	36	084
	RP78Si RP530 RP70 RP117Si	Butt Hinged	Single	53mm	37	085
	RP78Si RP120 RP70	Butt Hinged	Single	53mm	37	086
	RP124 RP127Si	Butt Hinged	Single	48mm	38	060

Selecting an Acoustic Sealing System



	R _w	RAVEN SEALING SYSTEMS	DOOR			PAGE	TEST
			Type	Configuration	Thickness		
R _w 41 - 50+ Acoustic Sealing Systems	41	RP78Si RP530 RP38 RP16Si	Butt Hinged	Double	54mm	48	050
	42	RP24Si RP124 RP8Si RP38Si	Butt Hinged	Single	35mm	42	091
		RP87Si RP124 RP8Si RP128Si	Butt Hinged	Single	35mm	43	058
		RP10Si RP124 RP127Si	Butt Hinged	Single	68mm	44	089
		RP24Si RP127Si RP126Si	Butt Hinged	Single	68mm	43	092
		RP10Si RP124 RP8Si RP128Si	Butt Hinged	Single	35mm	44	093
	43	RP78Si RP124 RP8Si RP128Si	Butt Hinged	Single	35mm	45	094
		RP10Si RP124 RP127Si	Butt Hinged	Single	48mm	44	054
		RP10Si RP124 RP127Si RP126Si	Butt Hinged	Single	48mm	45	055
	45	RP78Si RP120 RP70 RP120 ^RP71	Butt Hinged	Double	54mm	48	098
		RP24Si RP124 RP127Si RP126Si	Butt Hinged	Single	68mm	46	095
	46	RP78Si RP120 RP2004F RP8Si	Butt Hinged	Double	60mm	49	051
		RP85 RP124 RP127Si RP126Si	Butt Hinged	Single	68mm	46	057
	47	RP78Si RP120 RP70 ^RP71	Butt Hinged	Single	54mm	47	096
	49	RP78Si RP120 RP2004F RP8Si ^RP71	Butt Hinged	Double	60mm	49	052
Bulkhead, Interconnecting, Sliding, Pivot	30	RP47Si	Broad Butt Hinged	Single	35mm	52	042
		RP118Si RP71Si RP117Si	Butt Hinged	Double	45mm	54	047
	31	RP84Si RP51F RP52F	Sliding	Single	35mm	58	063
		RP93Si RP71Si RP97Si	Butt Hinged	Double	45mm	55	045
		RP118Si RP8Si RP16Si	Broad Butt Hinged	Double	45mm	54	048
	32	RP47Si	Broad Butt Hinged	Single	44mm	52	043
	34	RP10Si RP51F RP52F	Sliding	Single	35mm	58	061
	35	RP71Si RP71Si RP96	Pivot	Single	50mm	59	101
	38	RP94Si RP8Si	Butt Hinged	Interconnecting	40mm	56	026
	44	RP530 RP70	Butt Hinged	Interconnecting	50mm	56	099
	52	RP78Si RP120 RP70 ^RP71	Butt Hinged	Interconnecting	54mm	57	100

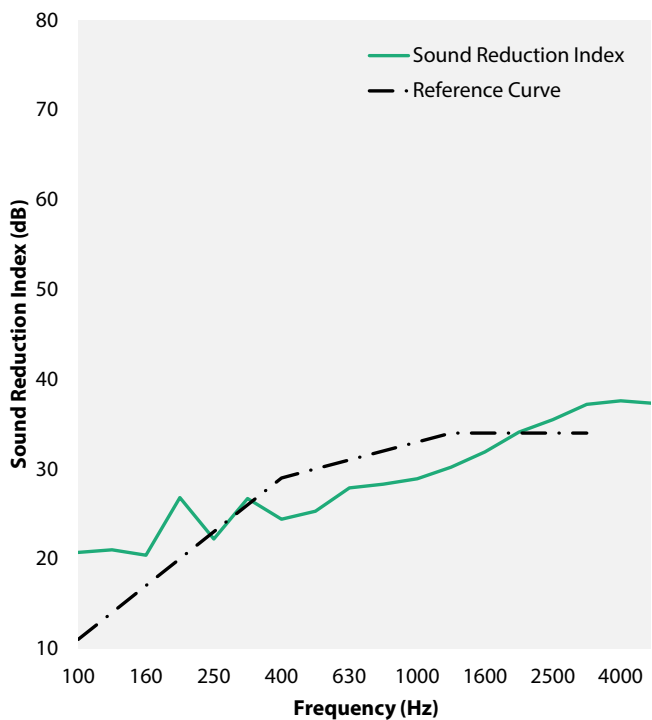
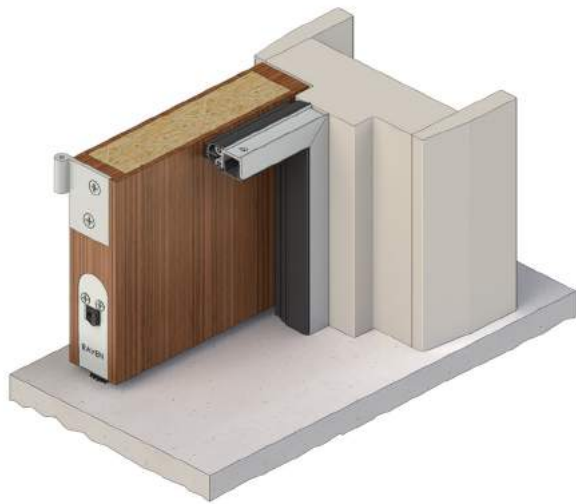
^RP71 with RP393Si gasket

R_w30 - 33 Acoustic Sealing Systems for Solid Core Timber Doors

Doors tested were standard solid core timber doors.

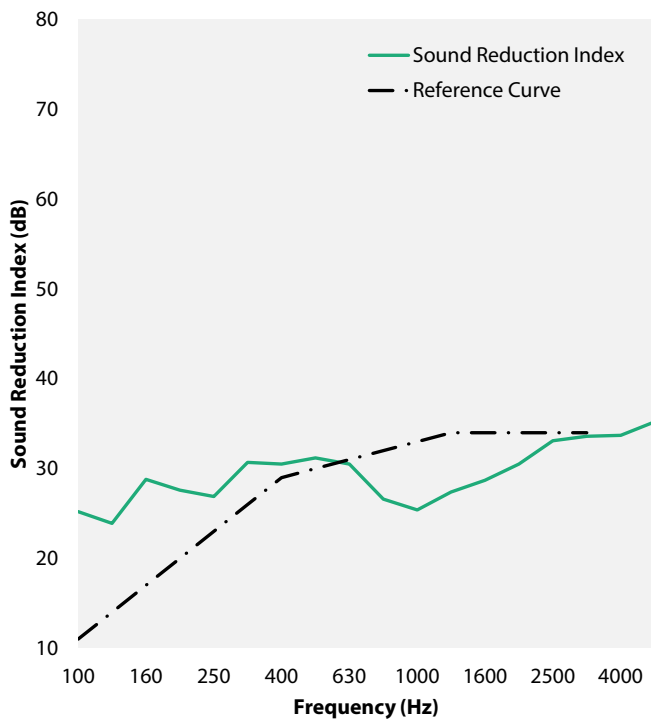
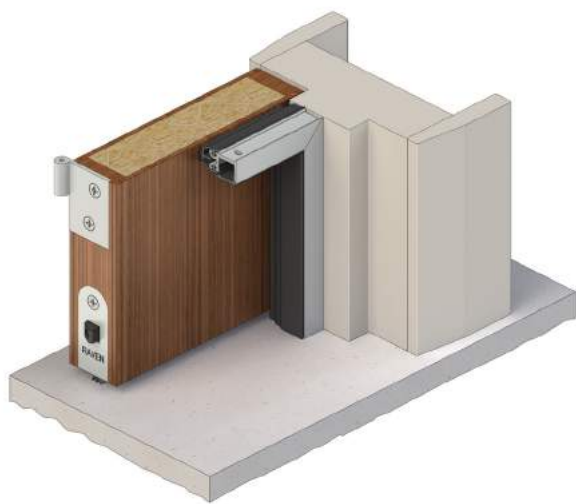


RP10 / RP10Si RP99Si



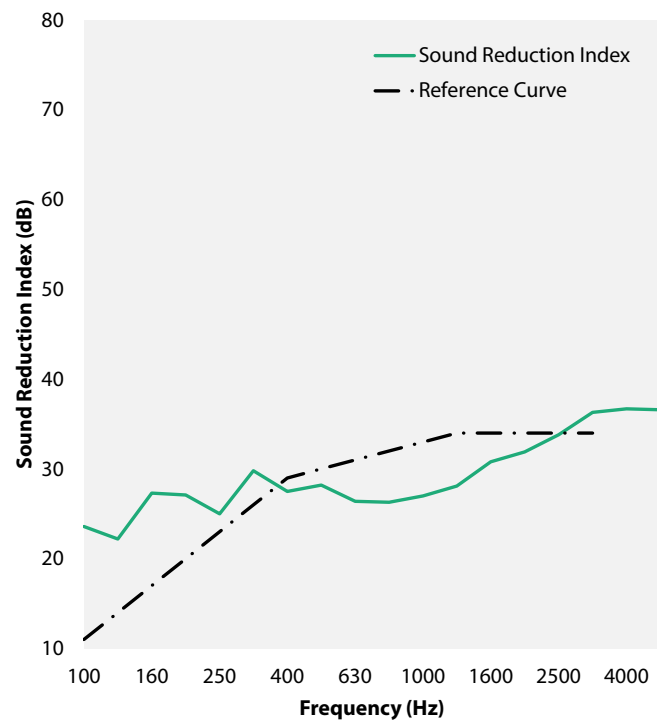
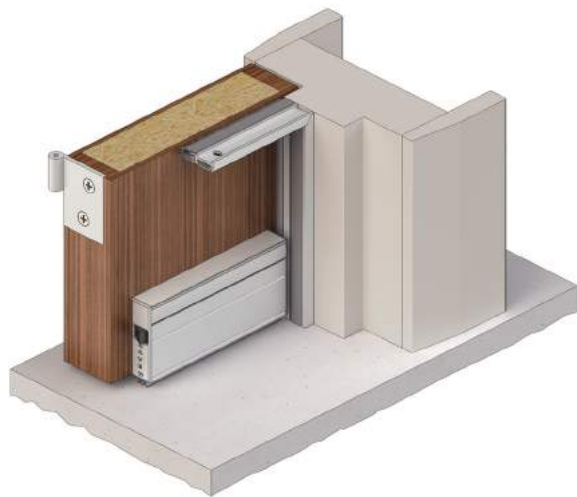
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
002	35mm	367.6 kg/m³	30	30	20.7	21.0	20.4	26.8	22.2	26.7	24.4	25.3	27.9	28.4	28.9	30.2	31.9	34.1	35.5	37.2	37.6	37.3

RP10Si RP8Si



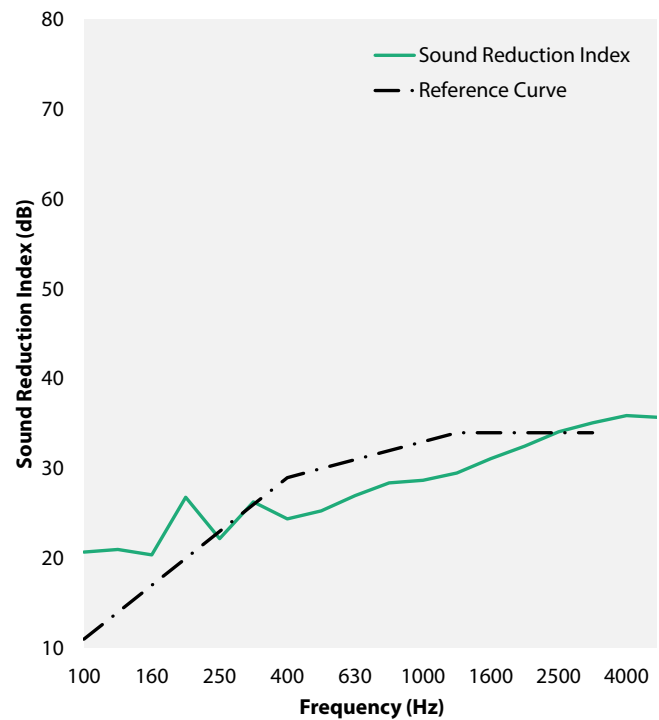
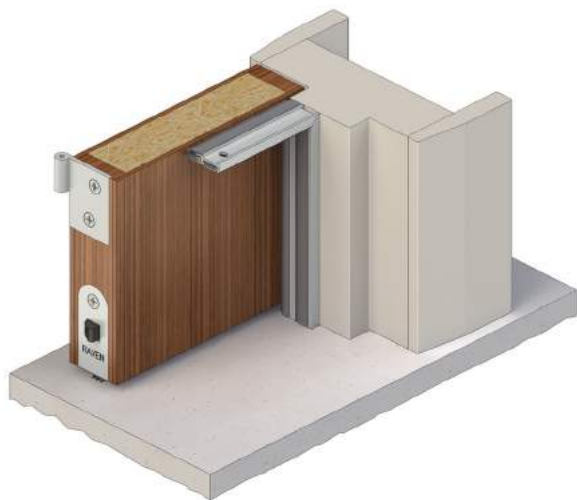
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
064	40mm	632.1 kg/m³	30	30	25.2	23.9	28.8	27.6	26.9	30.7	30.5	31.2	30.5	26.6	25.4	27.4	28.7	30.5	33.1	33.6	33.7	35.2

RP78Si RP35Si



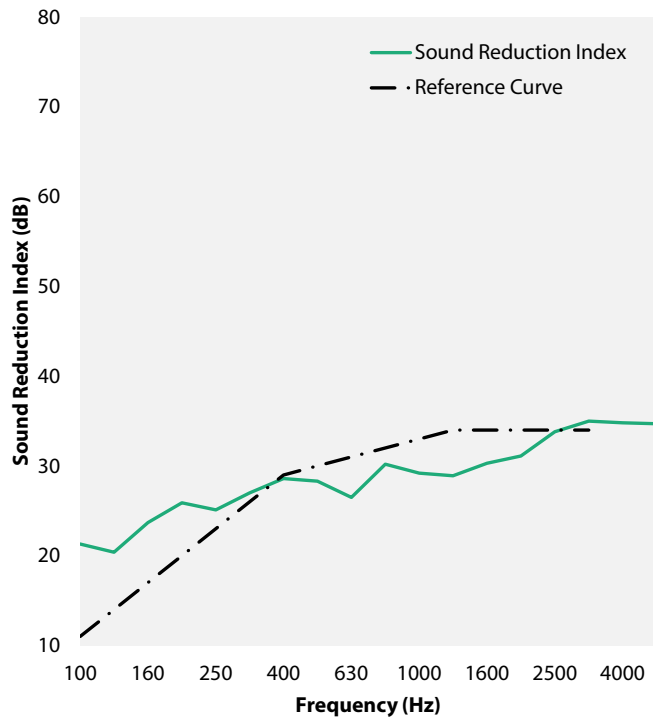
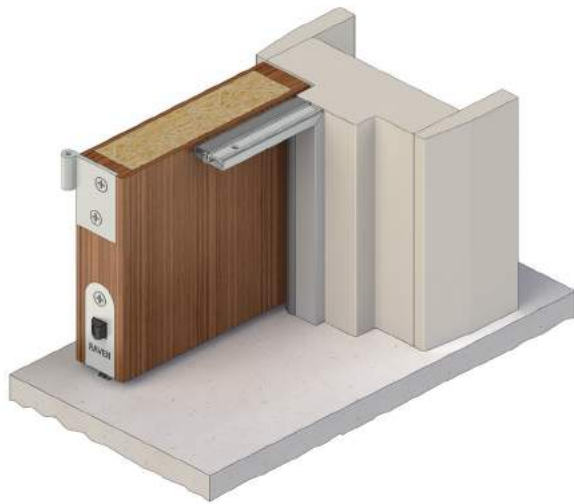
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
065	35mm	581.4 kg/m³	30	30	23.6	22.2	27.3	27.1	25.0	29.8	27.5	28.2	26.4	26.3	27.0	28.1	30.8	31.9	33.8	36.3	36.7	36.6

RP78Si RP8Si



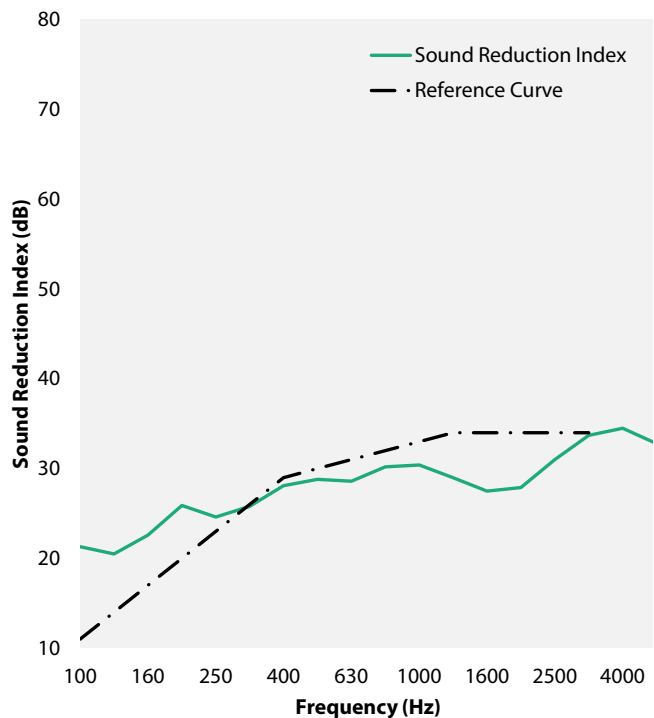
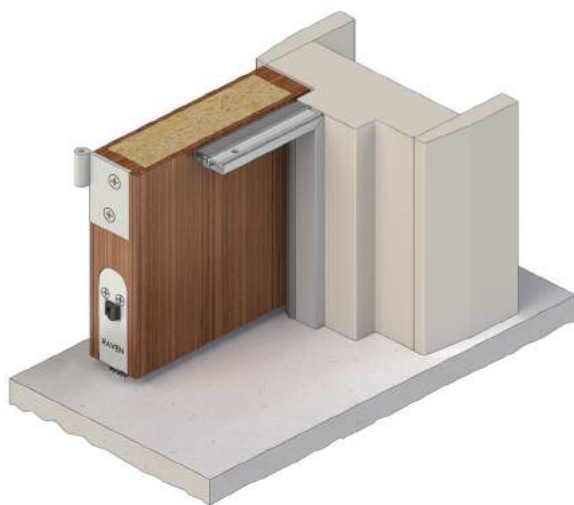
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
007	35mm	367.6 kg/m³	30	30	20.7	21.0	20.4	26.8	22.2	26.3	24.4	25.3	27.0	28.4	28.7	29.5	31.1	32.5	34.1	35.1	35.9	35.7

RP94Si RP8Si



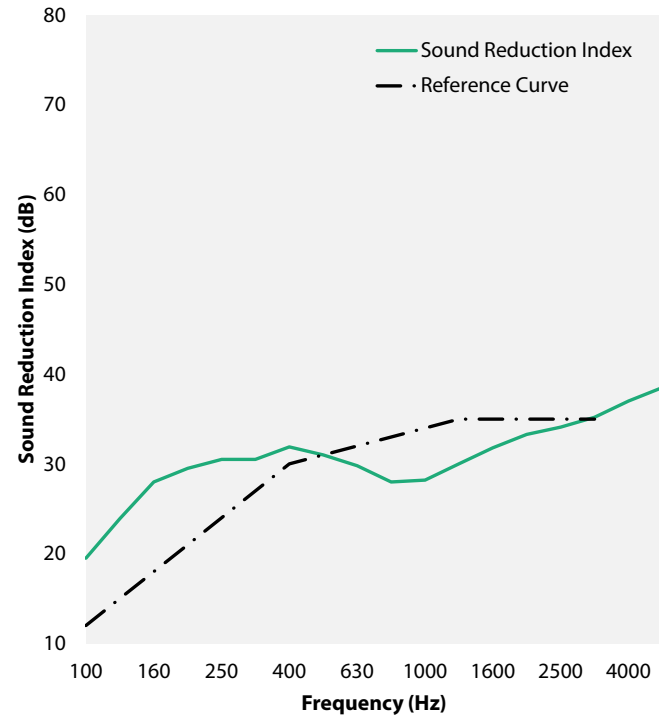
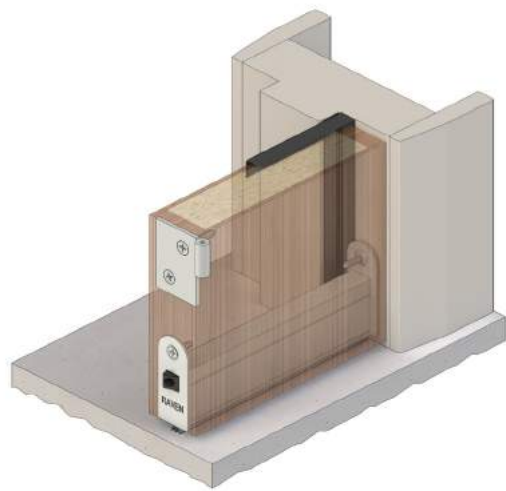
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
022	44mm	367.6 kg/m³	30	30	21.3	20.4	23.7	25.9	25.1	27.0	28.6	28.3	26.5	30.2	29.2	28.9	30.3	31.1	33.8	35.0	34.8	34.7

RP94Si RP99Si



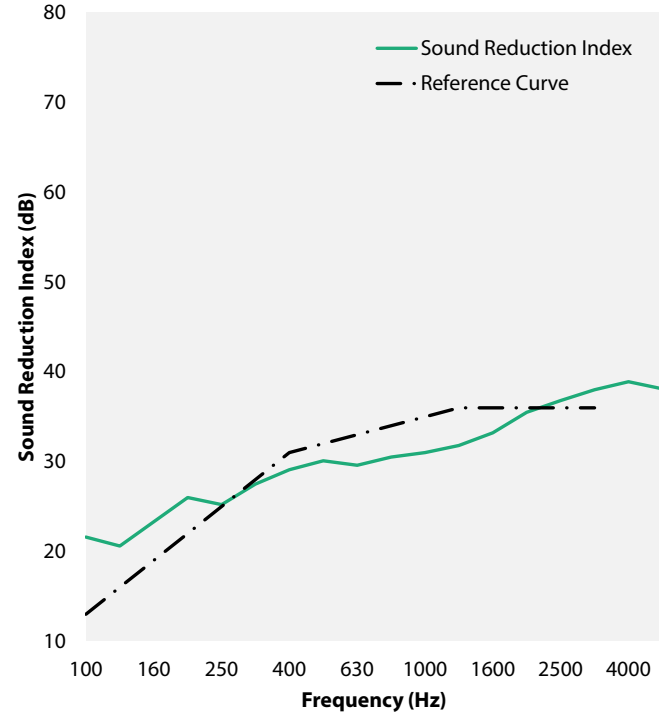
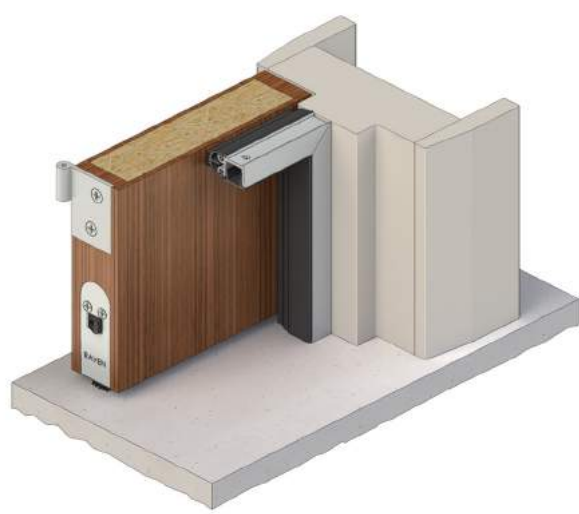
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
023	44mm	367.6 kg/m³	30	30	21.3	20.5	22.6	25.9	24.6	25.8	28.1	28.8	28.6	30.2	30.4	29.0	27.5	27.9	31.0	33.7	34.5	32.8

RP120 RP8Si



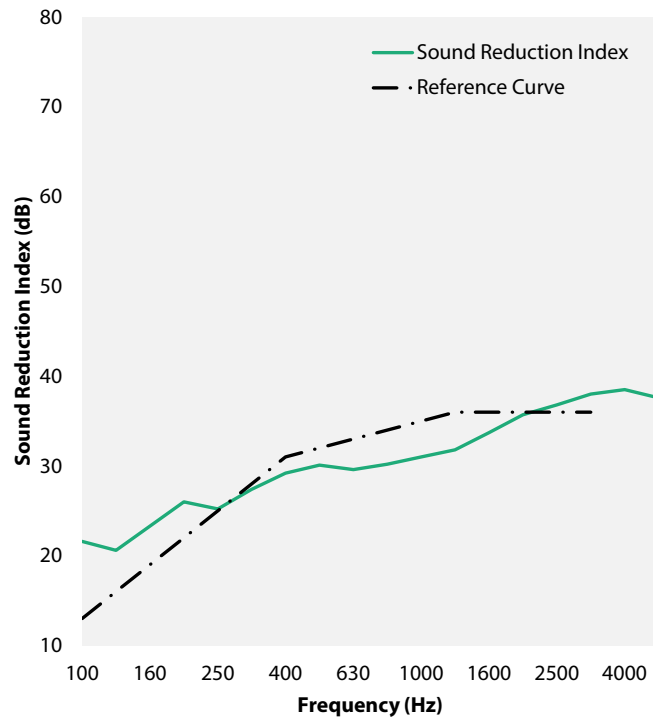
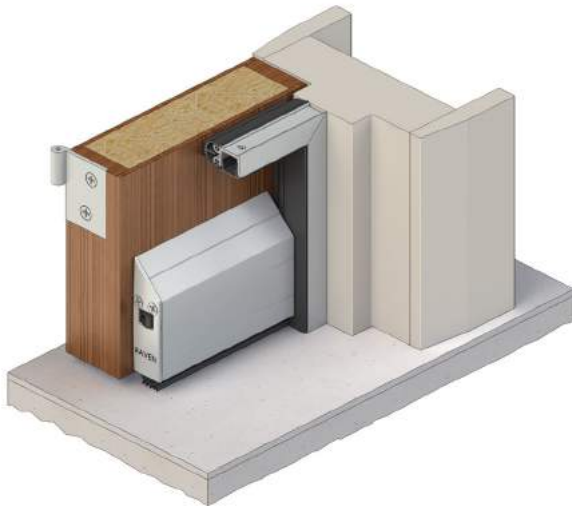
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
024	44mm	630.0 kg/m³	31	31	19.5	23.9	28.0	29.5	30.5	30.5	31.9	31.0	29.8	28.0	28.2	30.0	31.8	33.3	34.1	35.2	37.0	38.5

RP10 / RP10Si RP99Si



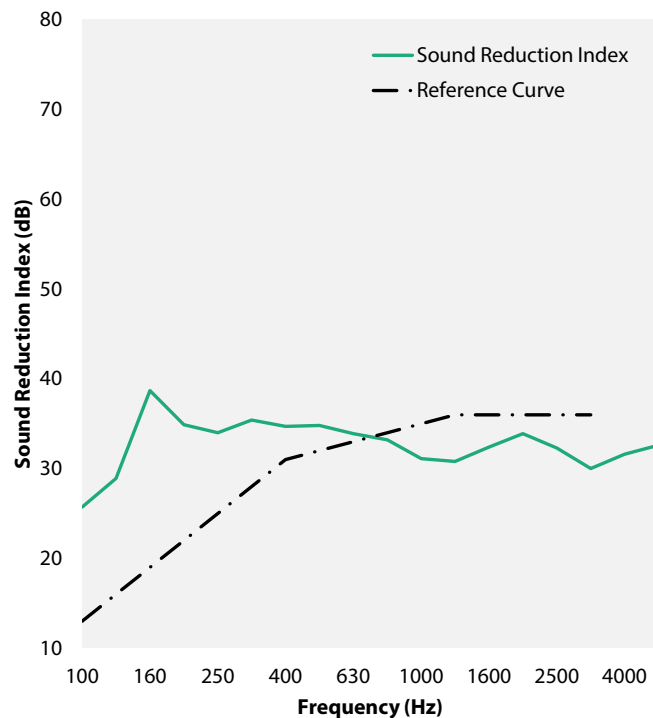
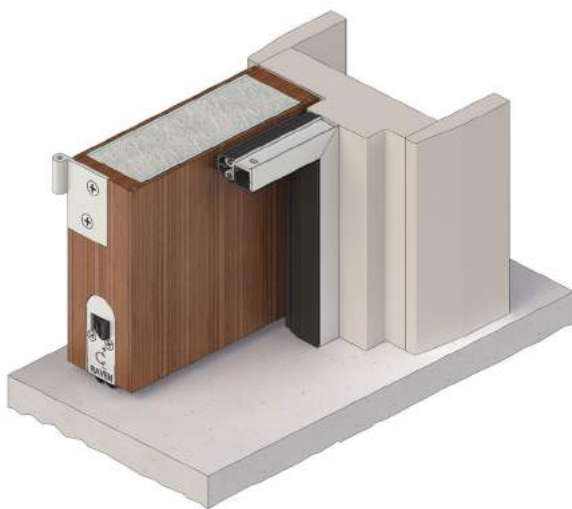
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
012	44mm	367.6 kg/m³	32	32	21.6	20.6	23.3	26.0	25.2	27.5	29.1	30.1	29.6	30.5	31.0	31.8	33.2	35.5	36.8	38.0	38.9	38.1

RP10 / RP10Si RP99Si



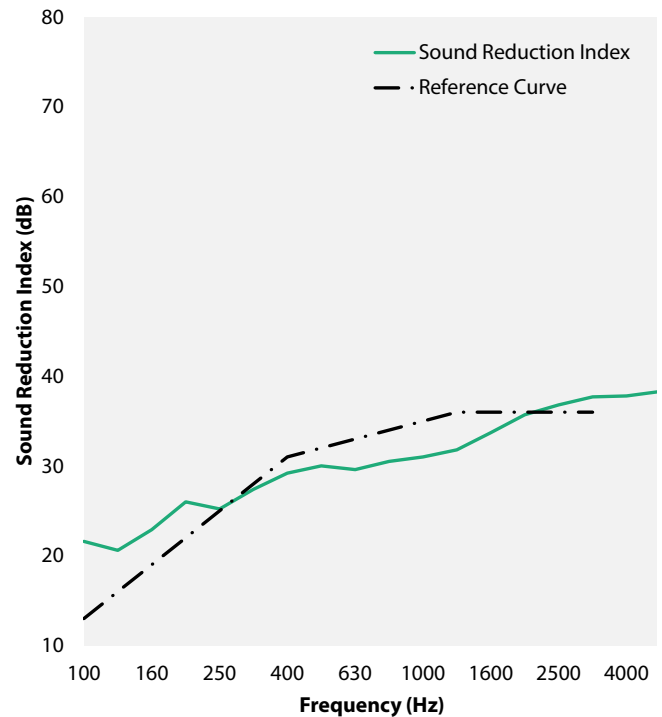
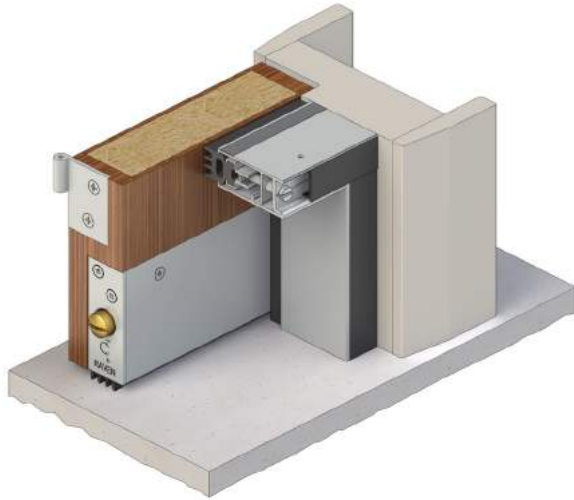
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
013	44mm	367.6 kg/m³	33	32	21.6	20.6	23.3	26.0	25.2	27.4	29.2	30.1	29.6	30.2	31.0	31.8	33.7	35.7	36.8	38.0	38.5	37.6

RP10Si RP127Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
066	48mm	916.9 kg/m ³	32	32	25.7	28.9	38.7	34.9	34.0	35.4	34.7	34.8	33.9	33.2	31.1	30.8	32.4	33.9	32.3	30.0	31.6	32.6

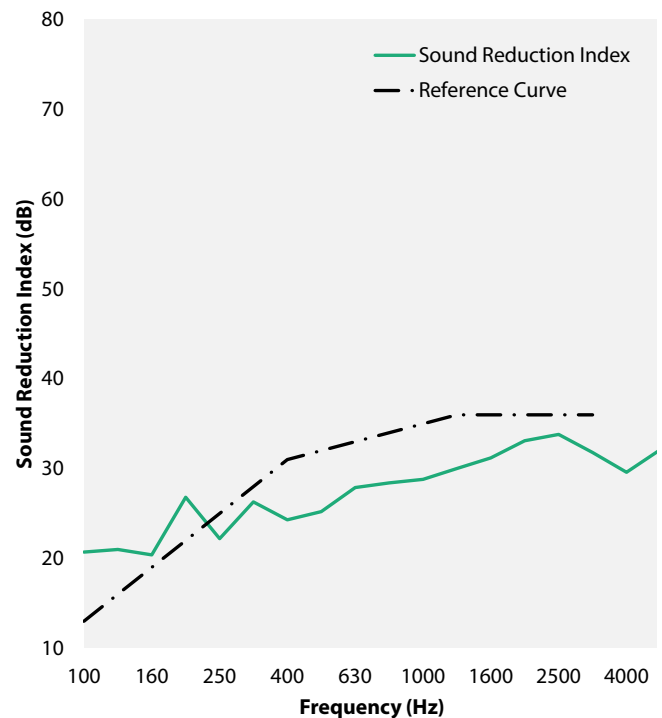
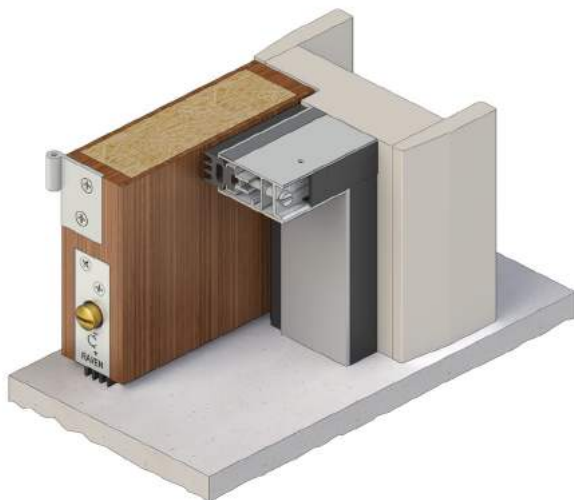
RP24 RP38



Perimeter seal adjustment independent of fixings

TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
015	44mm	367.6 kg/m ³	33	32	21.6	20.6	22.9	26.0	25.2	27.4	29.2	30.0	29.6	30.5	31.0	31.8	33.7	35.7	36.8	37.7	37.8	38.3

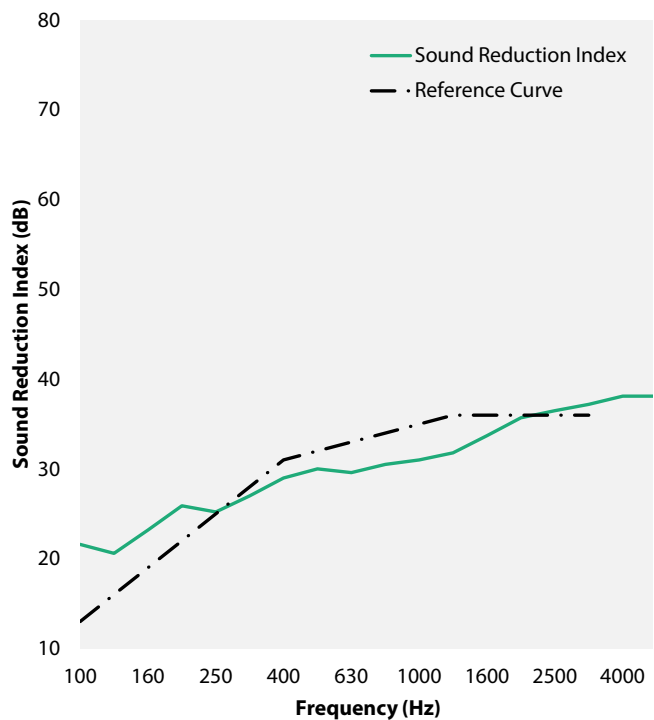
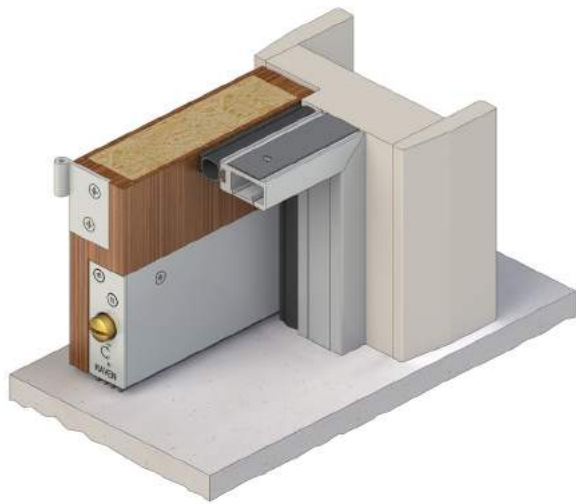
RP24 RP70



Perimeter seal adjustment independent of fixings

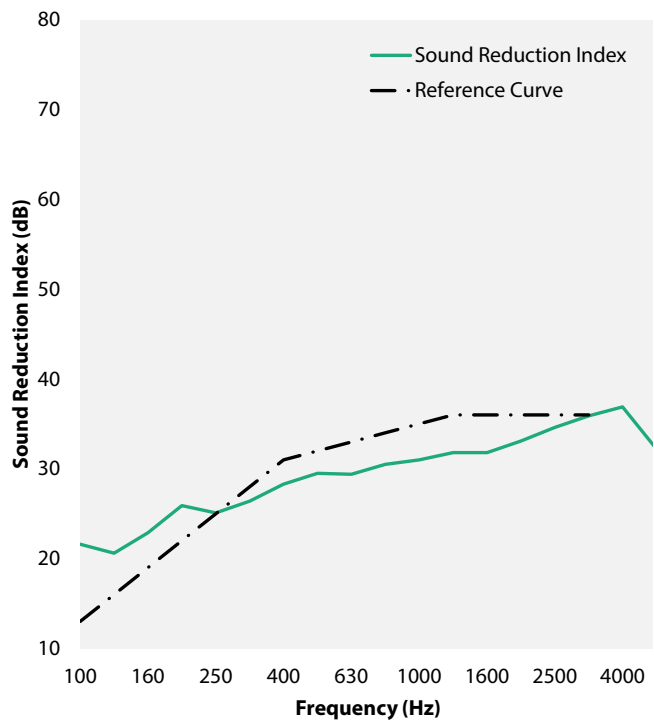
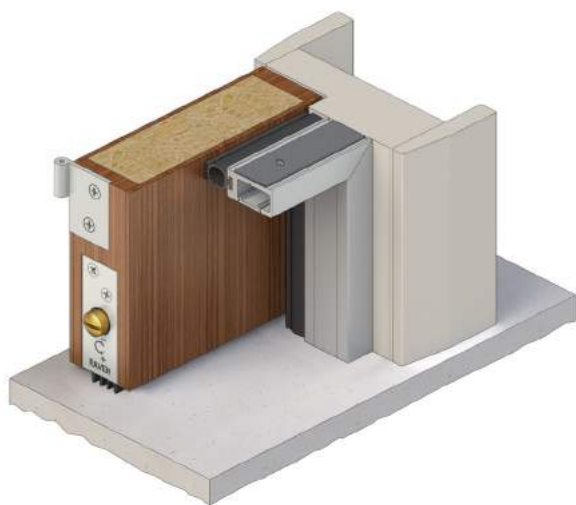
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
016	44mm	367.6 kg/m³	31	32	21.6	20.6	23.2	26.0	25.2	27.0	28.8	29.9	29.6	30.5	31.0	31.6	32.3	34.0	34.6	32.0	29.8	32.4

RP47Si RP38



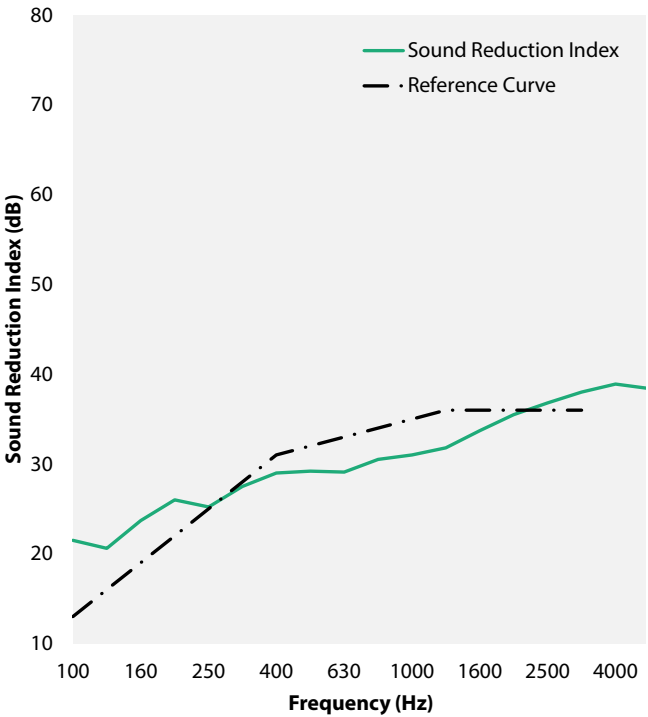
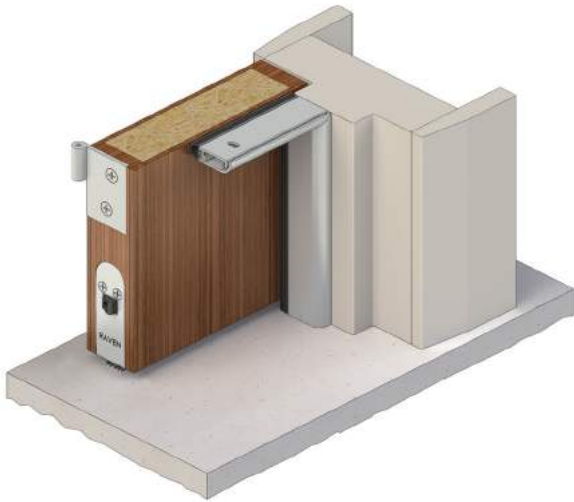
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
017	44mm	367.6 kg/m³	32	32	21.5	20.6	23.2	25.9	25.2	27.0	29.0	30.0	29.6	30.5	31.0	31.8	33.7	35.7	36.5	37.2	38.1	38.1

RP47Si RP70



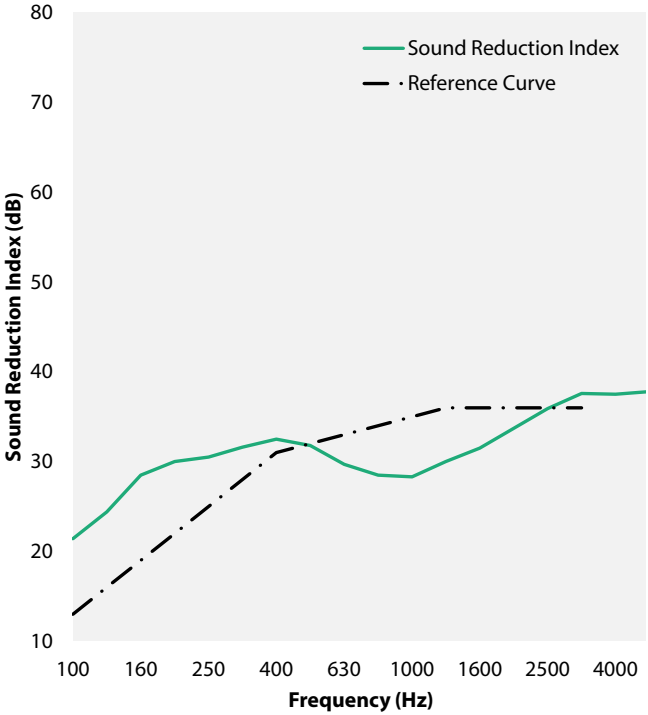
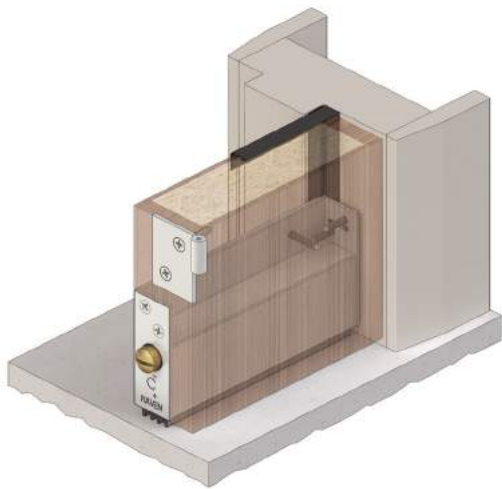
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
018	44mm	367.6 kg/m³	32	32	21.6	20.6	22.9	25.9	25.1	26.4	28.3	29.5	29.4	30.5	31.0	31.8	31.8	33.1	34.6	35.9	36.9	32.2

RP93Si RP99Si



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
021	44mm	367.6 kg/m³	32	32	21.5	20.6	23.7	26.0	25.2	27.5	29.0	29.2	29.1	30.5	31.0	31.8	33.7	35.5	36.8	38.0	38.9	38.4

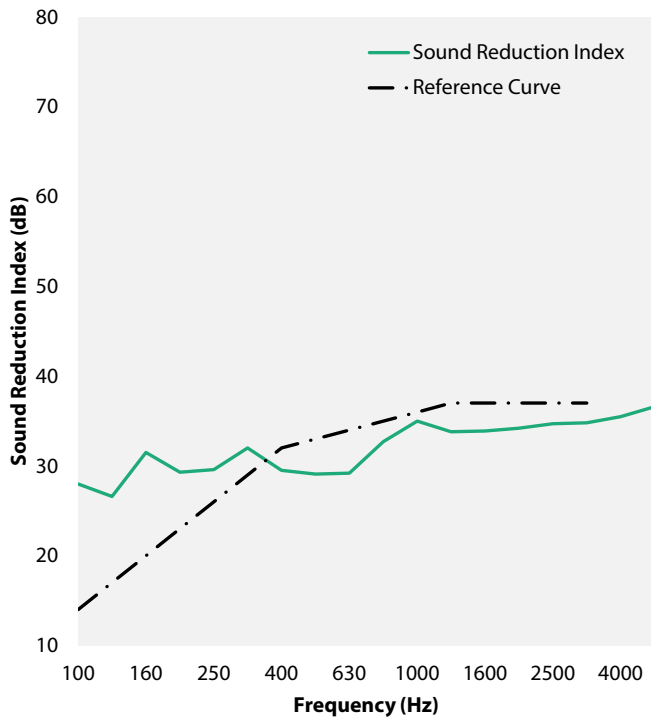
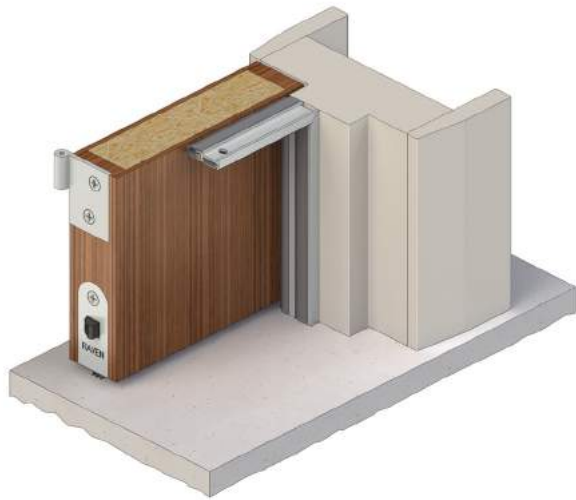
RP120 RP38



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
067	44mm	630.0 kg/m ³	32*	32	21.4	24.4	28.5	30.0	30.5	31.6	32.5	31.8	29.7	28.5	28.3	30.0	31.5	33.7	35.9	37.6	37.5	37.8
*STC estimation																						

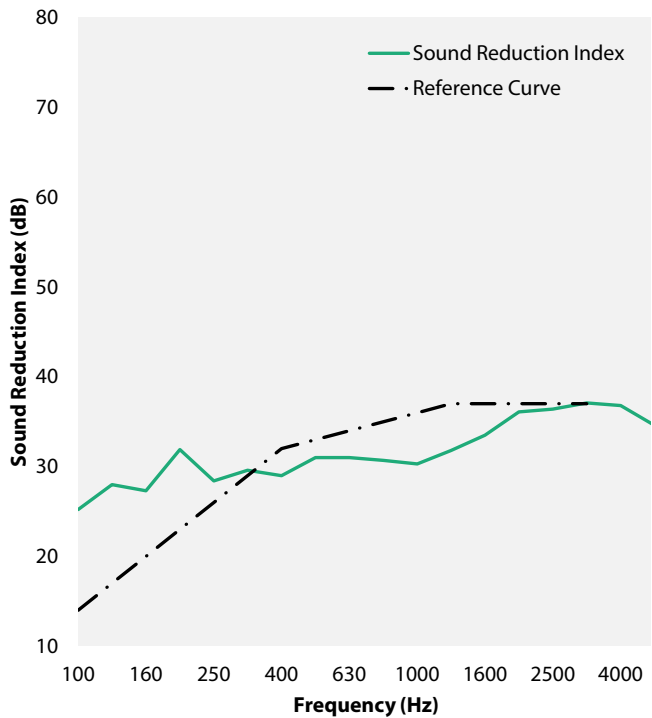
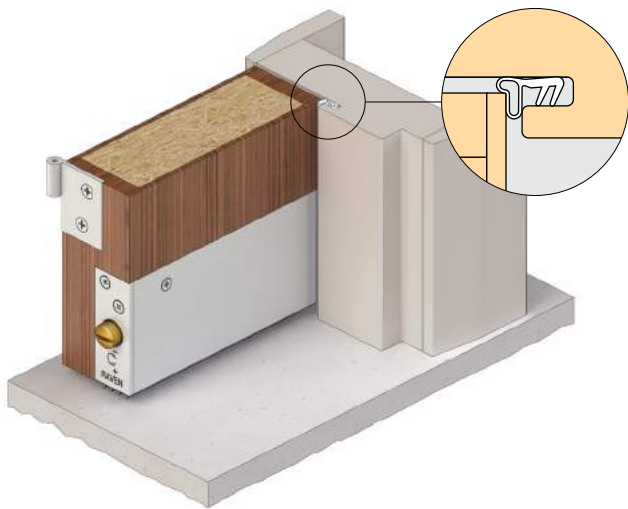
*STC estimation

RP78Si RP8Si



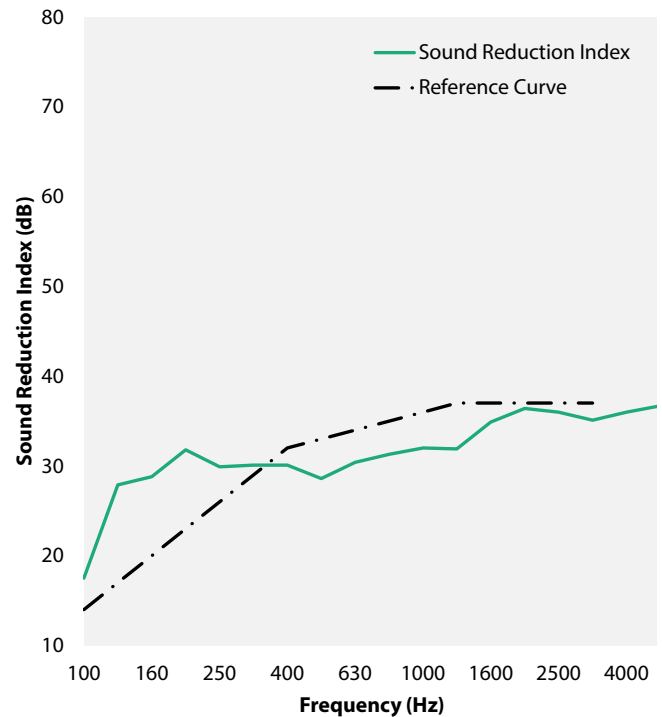
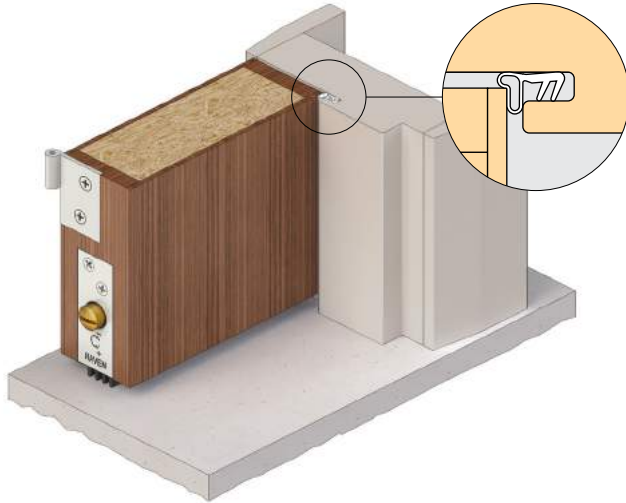
TEST	COMPOSITE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
070	40mm	1023.2 kg/m³	33	33	28.0	26.6	31.5	29.3	29.6	32.0	29.5	29.1	29.2	32.7	35.0	33.8	33.9	34.2	34.7	34.8	35.5	36.6

RP530 RP38



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
068	50mm	N/A	33	33	25.2	28.0	27.3	31.9	28.4	29.6	29.0	31.0	31.0	30.7	30.3	31.8	33.5	36.1	36.4	37.1	36.8	34.6

RP530 RP70



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
069	50mm	N/A	33	33	17.5	27.9	28.8	31.8	29.9	30.1	30.1	28.6	30.4	31.3	32.0	31.9	34.9	36.4	36.0	35.1	36.0	36.7



Flinders Uni Celebrates 50 years with new Plaza and Student Hub

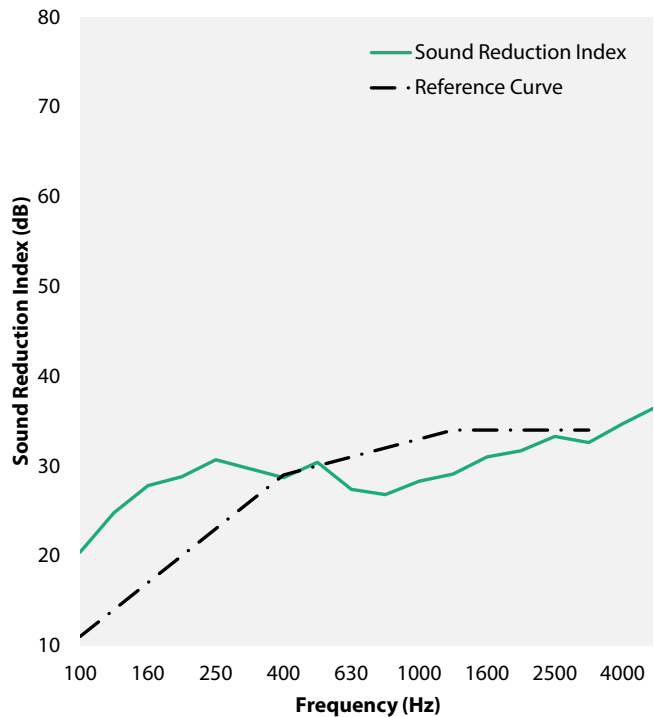
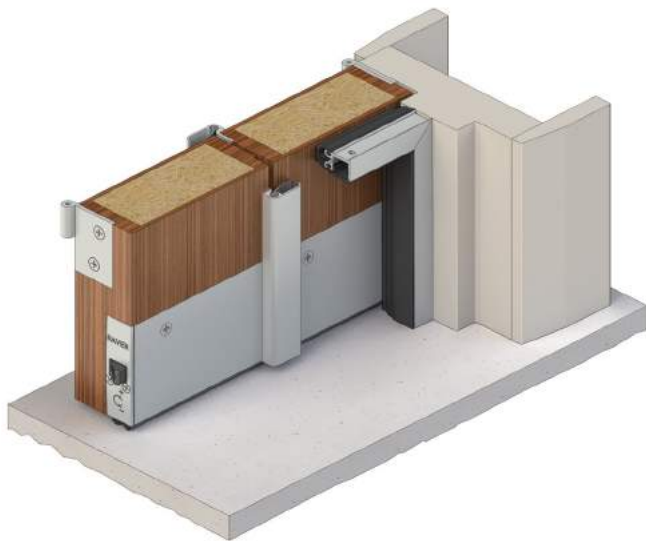
Flinders University recently celebrated 50 years with the opening of the new Plaza and Student Hub in March 2016. The building is the University's biggest redevelopment to date and part of its progression for the next 50 years.

The new Plaza and Student Hub redevelopment was designed to accommodate the ever-changing needs of the university's students, teachers, and staff. It includes spaces for study, recreation and socialisation, and teaching and learning facilities. It also features collaborative group lounges, conference facilities, and food and beverage outlets.

To accommodate the mandatory NCC requirements for the new Student Hub, Raven Products supplied door sealing systems for acoustic separation in quiet spaces for study and learning.

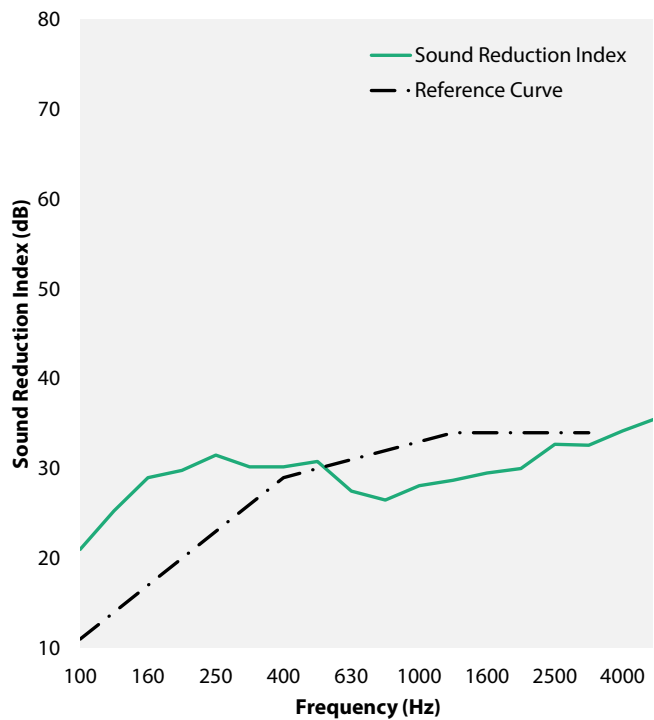
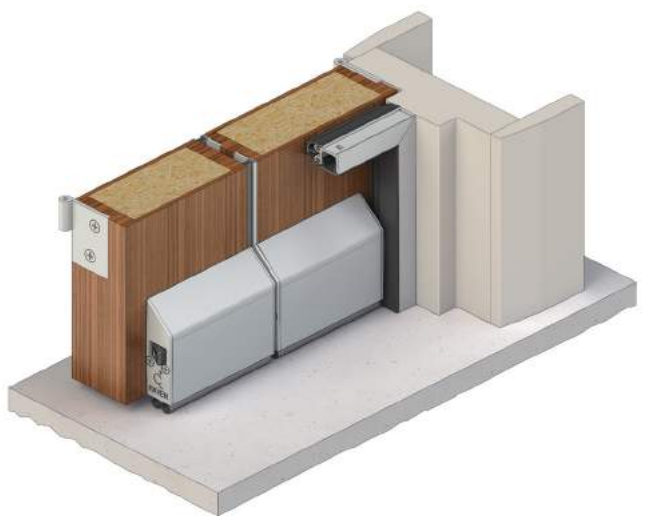
In addition, Raven sealing systems significantly reduce energy loss from rooms and prevent toxic smoke infiltration in a fire emergency.

RP10Si RP126Si RP16Si



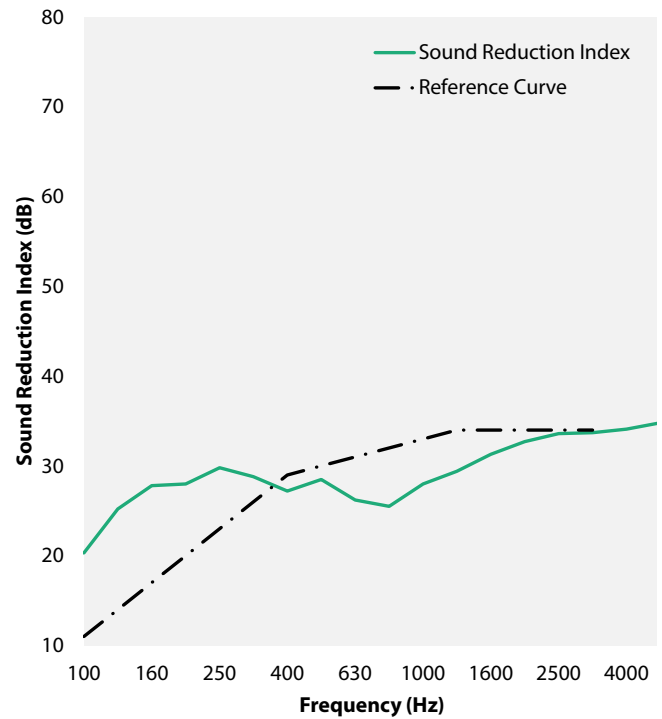
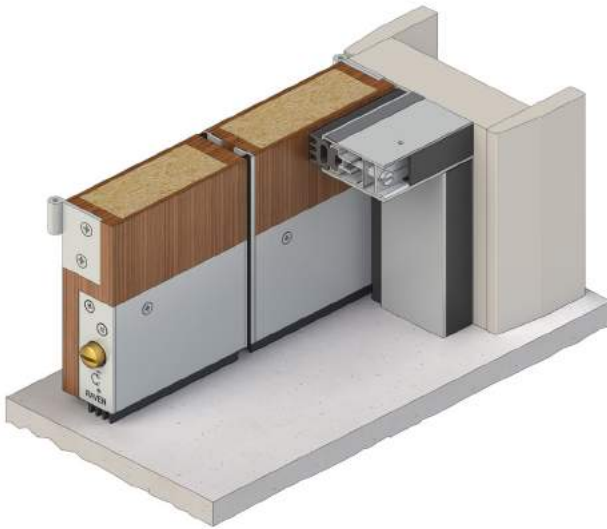
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
071	45mm	735.9 kg/m³	30	30	20.4	24.8	27.8	28.8	30.7	29.7	28.7	30.4	27.4	26.8	28.3	29.1	31.0	31.7	33.3	32.6	34.7	36.6

RP10Si RP128Si RP71Si



TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
035	45mm	735.9 kg/m³	30	30	21.0	25.3	29.0	29.8	31.5	30.2	30.2	30.8	27.5	26.5	28.1	28.7	29.5	30.0	32.7	32.6	34.2	35.6

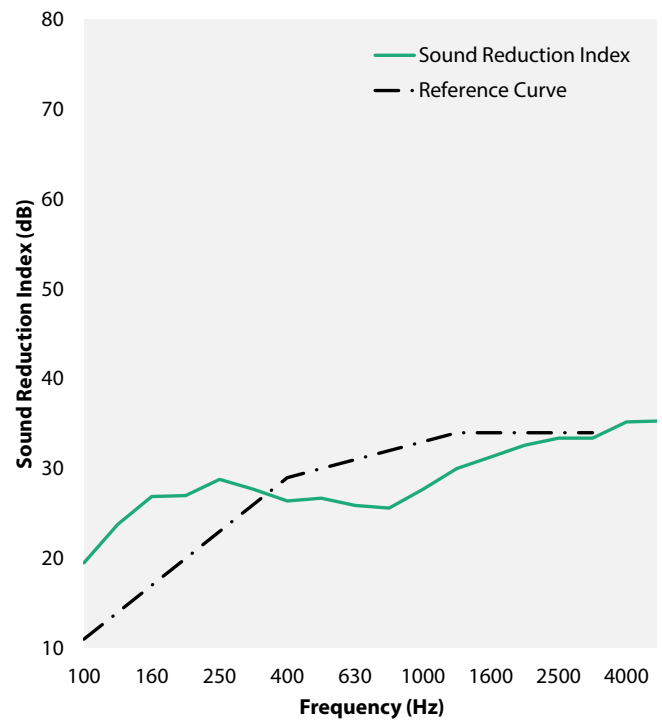
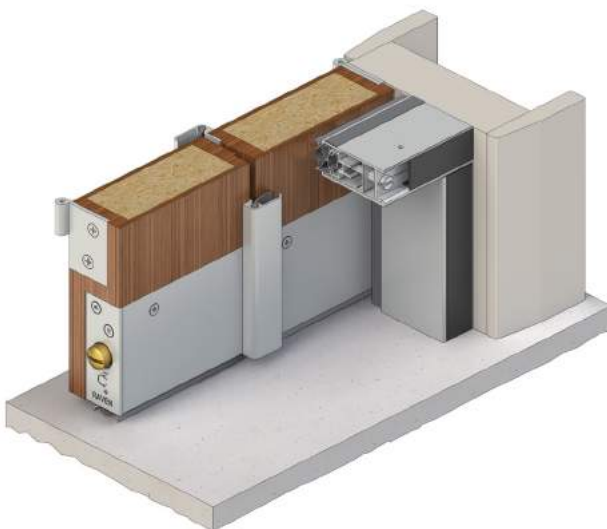
RP24 RP38 RP71



Perimeter seal adjustment independent of fixings

TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
072	45mm	735.9 kg/m³	30	30	20.3	25.2	27.8	28.0	29.8	28.8	27.2	28.5	26.2	25.5	28.0	29.4	31.3	32.7	33.6	33.7	34.1	34.8

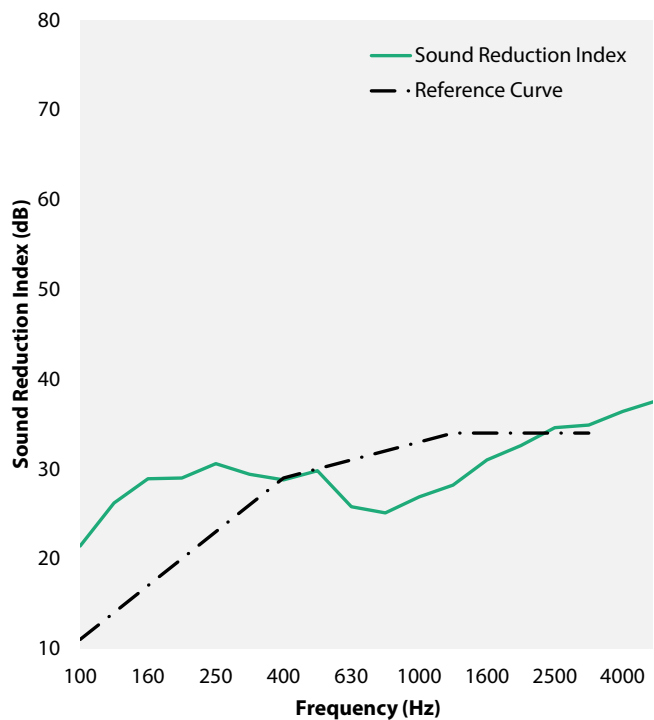
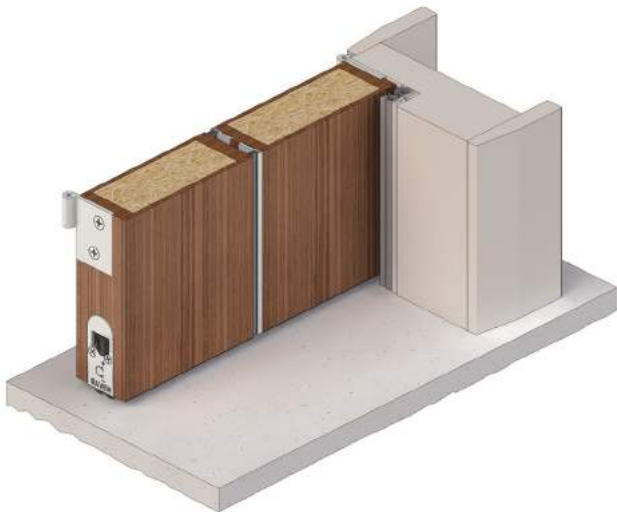
RP24Si RP38Si RP16Si



Perimeter seal adjustment independent of fixings

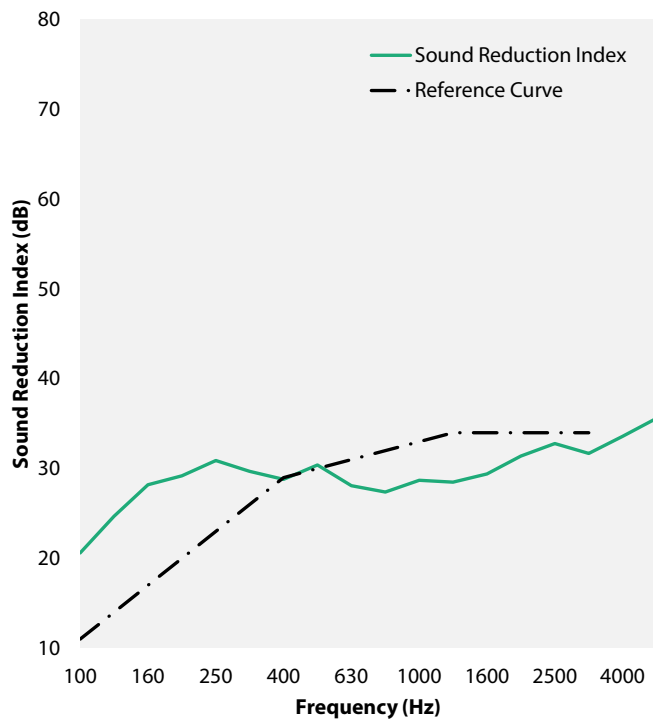
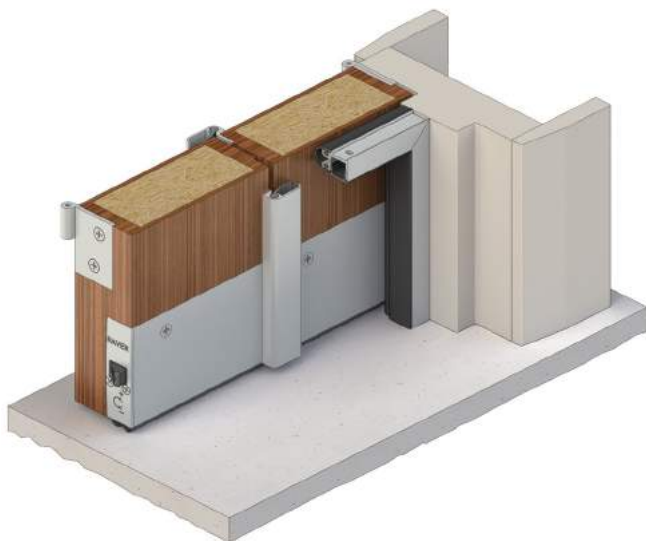
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
037	45mm	735.9 kg/m³	30	30	19.5	23.8	26.9	27.0	28.8	27.7	26.4	26.7	25.9	25.6	27.7	30.0	31.3	32.6	33.4	33.4	35.2	35.3

RP44Si RP127Si RP71Si



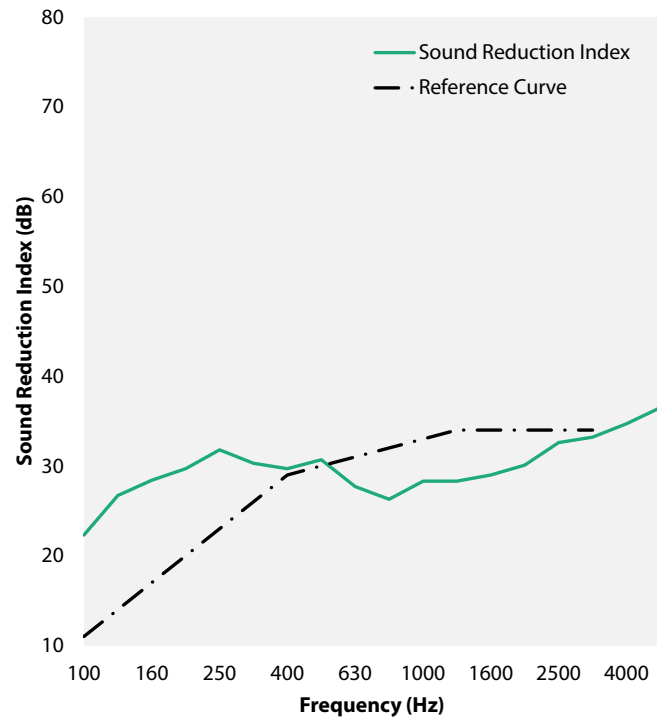
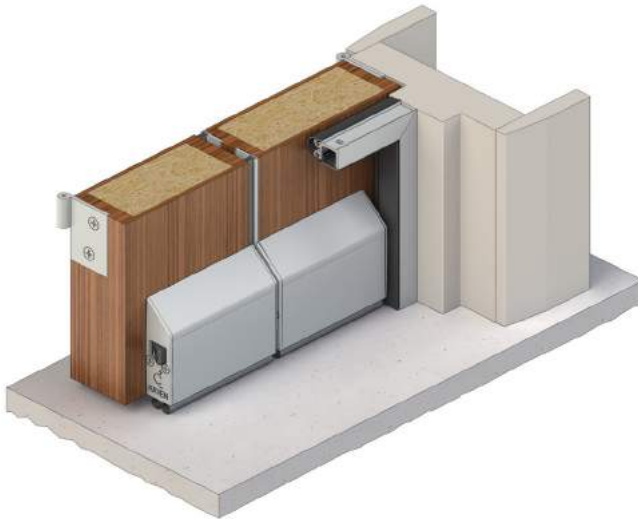
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
073	45mm	735.9 kg/m³	30	30	21.4	26.2	28.9	29.0	30.6	29.4	28.7	29.8	25.8	25.1	26.9	28.2	31.0	32.6	34.6	34.9	36.4	37.6

RP84Si RP126Si RP16Si



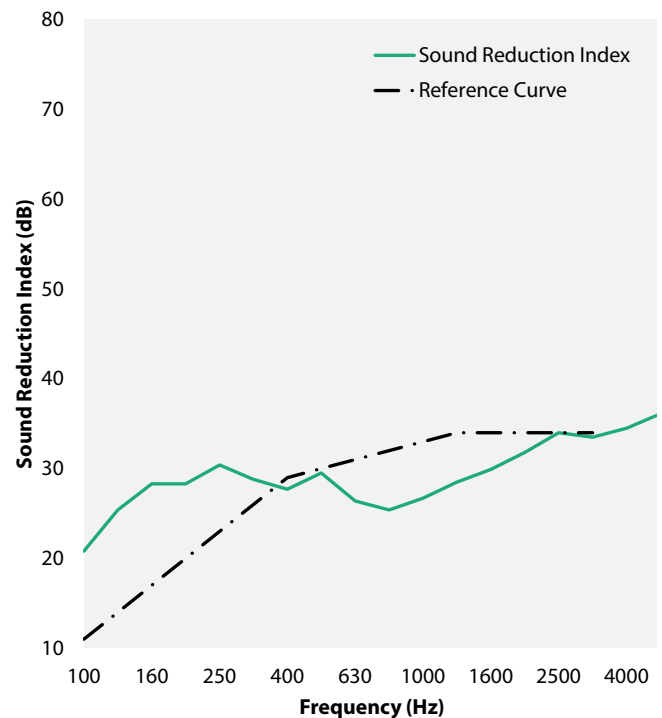
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
038	45mm	735.9 kg/m³	30	30	20.6	24.7	28.2	29.2	30.9	29.7	28.8	30.4	28.1	27.4	28.7	28.5	29.4	31.4	32.8	31.7	33.6	35.6

RP84Si RP128Si RP71Si



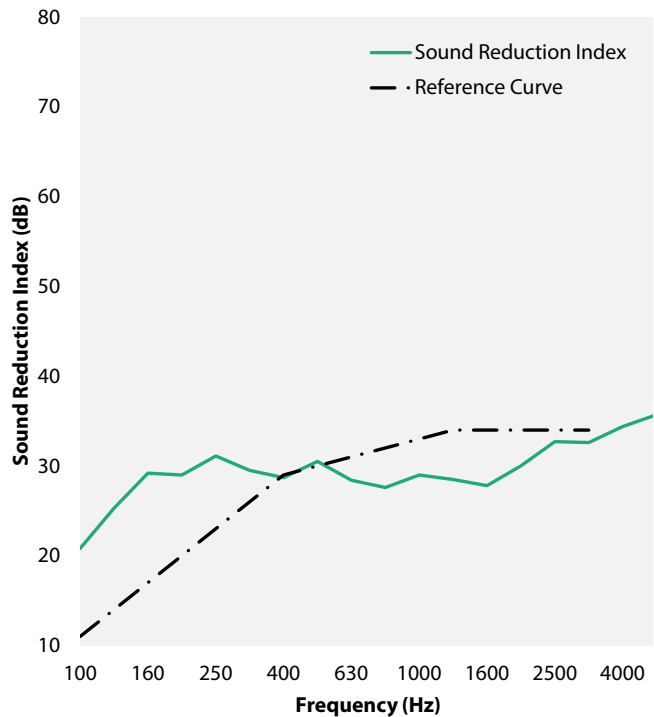
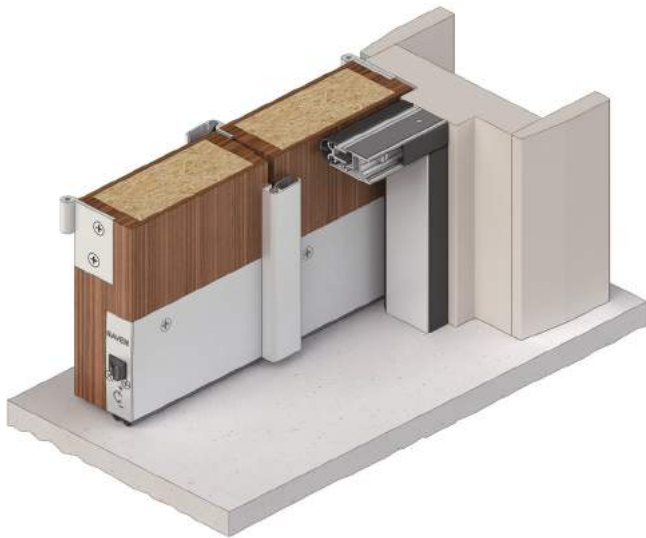
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
040	45mm	735.9 kg/m³	30	30	22.3	26.7	28.4	29.7	31.8	30.3	29.7	30.7	27.7	26.3	28.3	28.3	29.0	30.1	32.6	33.2	34.7	36.5

RP84Si RP8Si RP71



TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
075	45mm	735.9 kg/m ³	30	30	20.8	25.4	28.3	28.3	30.4	28.8	27.7	29.5	26.4	25.4	26.7	28.5	29.9	31.8	34.0	33.5	34.5	36.1

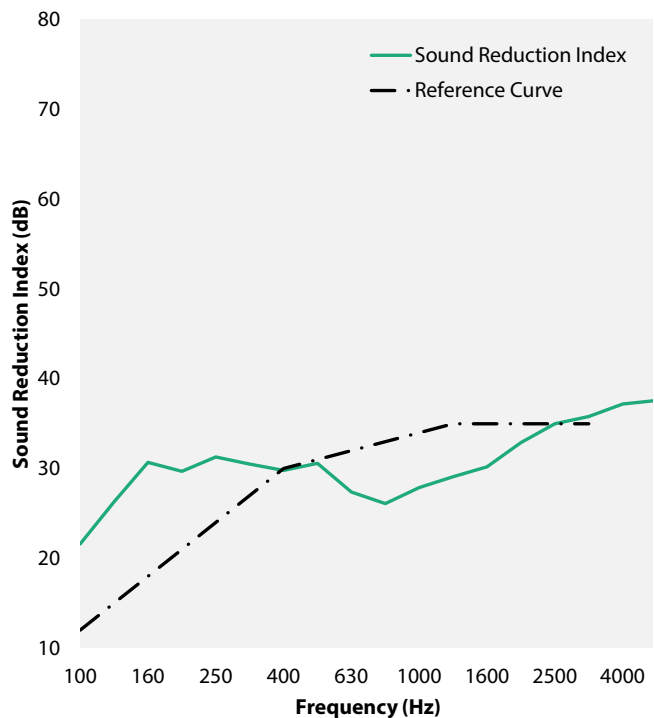
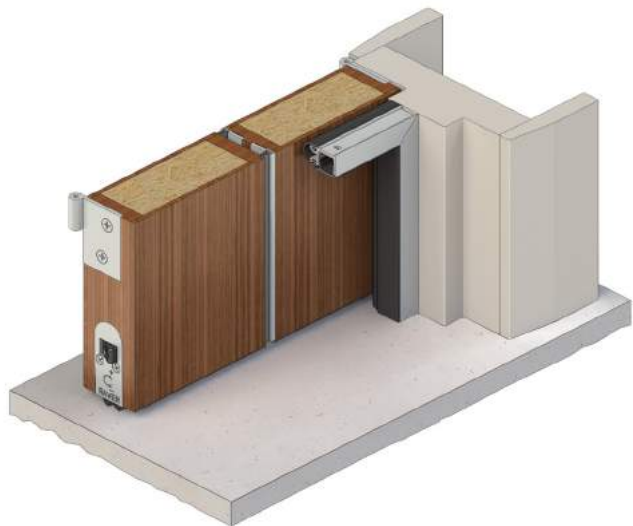
RP87HSi RP126Si RP16Si



Perimeter seal adjustment independent of fixings

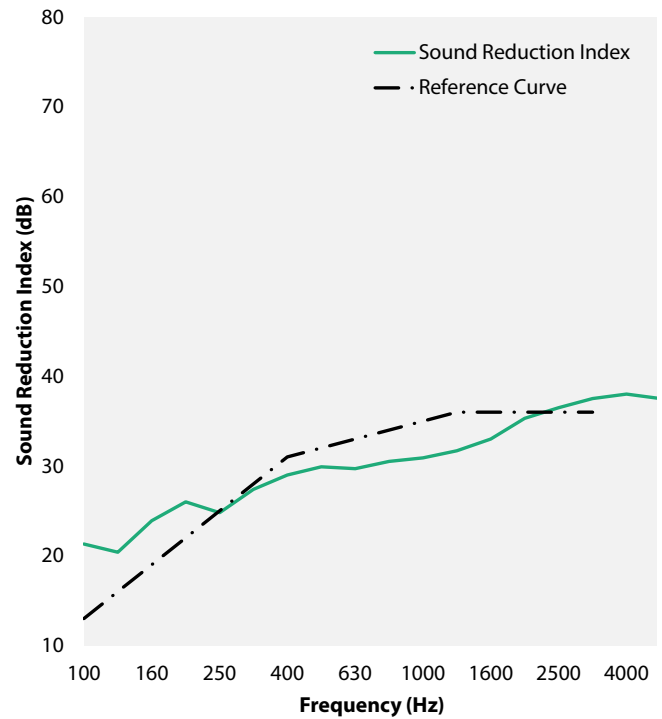
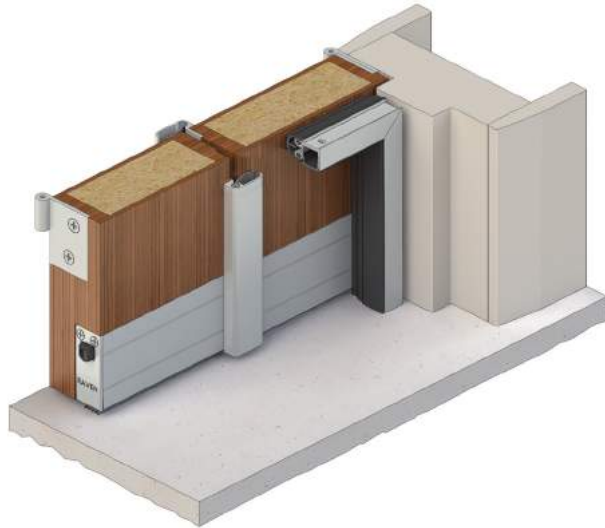
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
076	45mm	735.9 kg/m³	30	30	20.8	25.3	29.2	29.9	31.1	29.5	28.7	30.5	28.4	27.6	29.0	28.5	27.8	30.0	32.7	32.6	34.4	35.7

RP84Si RP127Si RP71Si



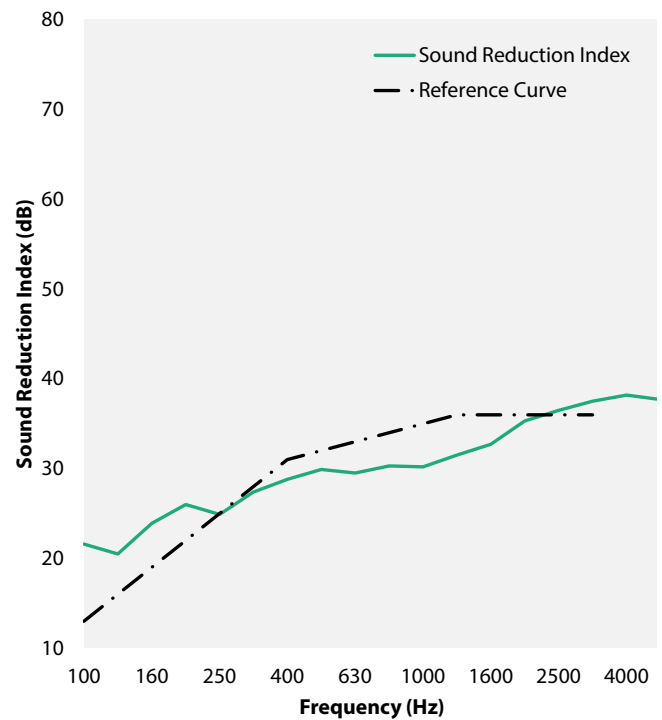
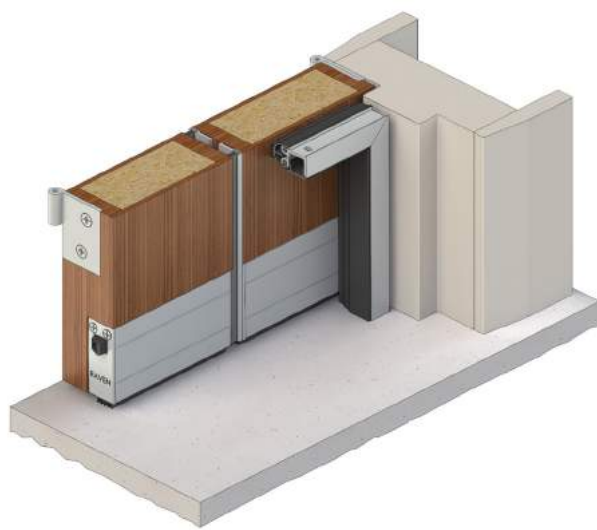
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
039	45mm	735.9 kg/m³	31	31	21.6	26.3	30.7	29.7	31.3	30.5	29.8	30.6	27.4	26.1	27.9	29.1	30.2	32.9	35.0	35.8	37.2	37.6

RP10 / RP10Si RP99Si RP16Si



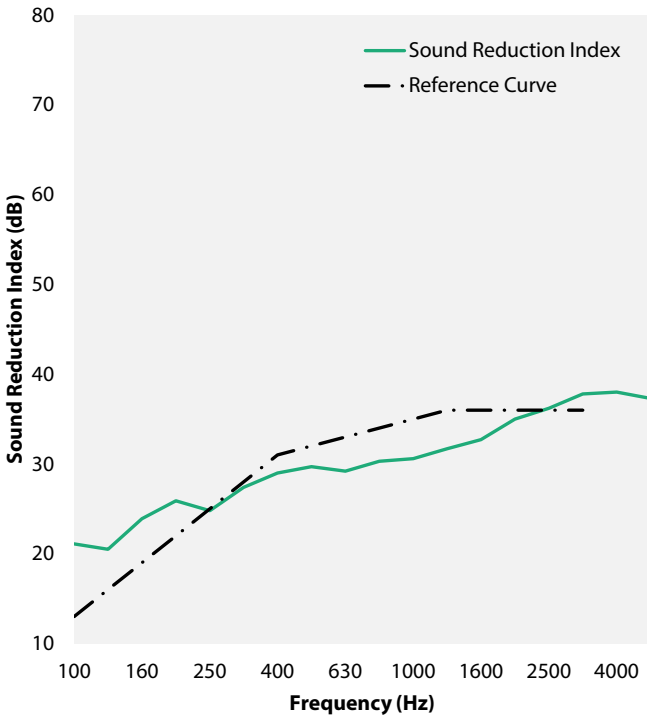
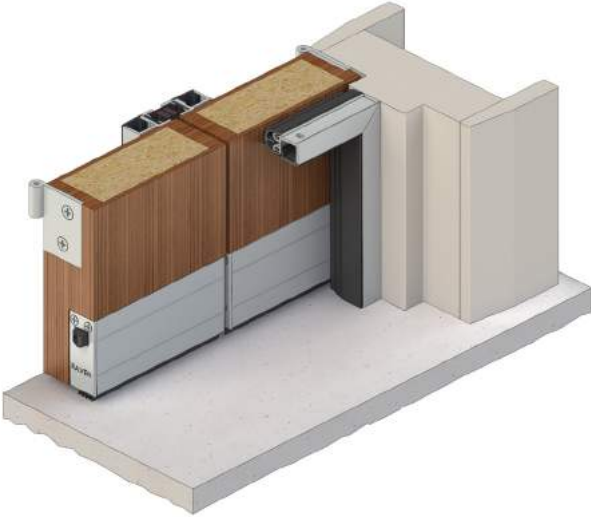
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
031	44mm	367.6 kg/m³	32	32	21.3	20.4	23.9	26.0	24.8	27.4	29.0	29.9	29.7	30.5	30.9	31.7	33.0	35.3	36.5	37.5	38.0	37.5

RP10 / RP10Si RP99Si RP71Si



TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
033	44mm	367.6 kg/m ³	32	32	21.6	20.5	23.9	26.0	24.9	27.4	28.8	29.9	29.5	30.3	30.2	31.5	32.7	35.3	36.5	37.5	38.2	37.7

RP10 / RP10Si RP99Si RP85



TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
034	44mm	367.6 kg/m³	32	32	21.1	20.5	23.9	25.9	24.8	27.4	29.0	29.7	29.2	30.3	30.6	31.7	32.7	35.0	36.2	37.8	38.0	37.3



Adelaide Health and Medical Sciences building

Situated alongside the SAHMRI in the heart of Adelaide's BioMed City, sits the new Adelaide Health and Medical Sciences (AHMS) building. Featuring the latest state-of-the art cutting-edge technology, the AHMS was designed to integrate skills-based student learning with The University of Adelaide and a network of industry experts and health researchers.

Standing 14 floors high, the AHMS contains 4 floors of laboratories, 3 lecture theatres, 24 simulation suites, a dental hospital and student study spaces, eateries and amenities.

In order to meet the various mandated regulations and standards as required of the healthcare industry, Raven supplied a range of door bottom seals, perimeter seals and threshold plates to the AHMS building providing integrated door sealing systems, designed to meet a variety of complex sealing requirements. Raven sealing systems were required to perform across multiple levels from the exclusion of smoke, fire and weather through to acoustic attenuation and the containment of energy.



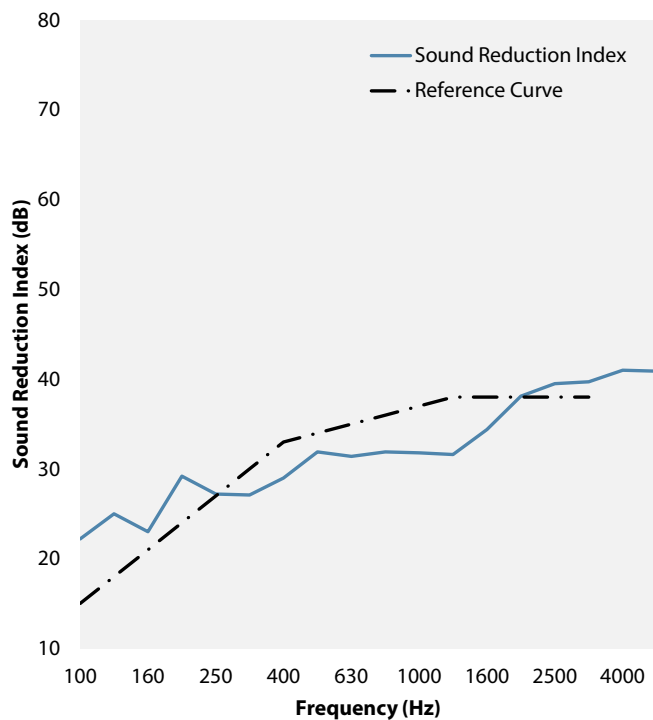
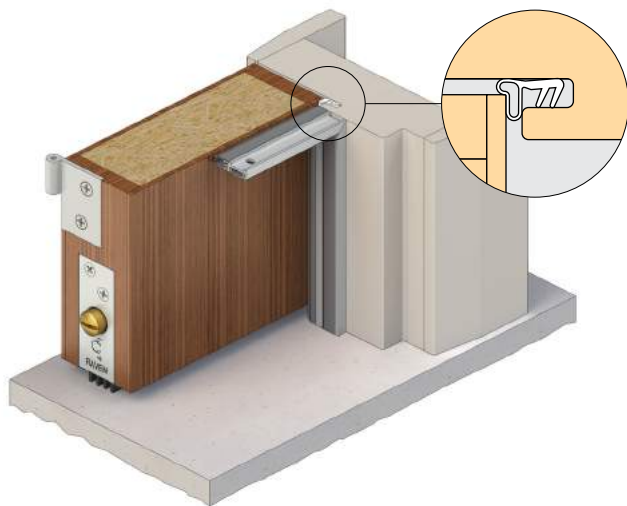
A modern office interior featuring glass-walled meeting rooms and blue armchairs. The scene is partially obscured by a large blue curved overlay on the left side, which contains the main title and a small text block. The office has a clean, minimalist design with a dark ceiling and modern lighting fixtures.

R_w34 - 40 Acoustic Sealing Systems for Proprietary Doors

Doors tested were proprietary brand acoustic doors.

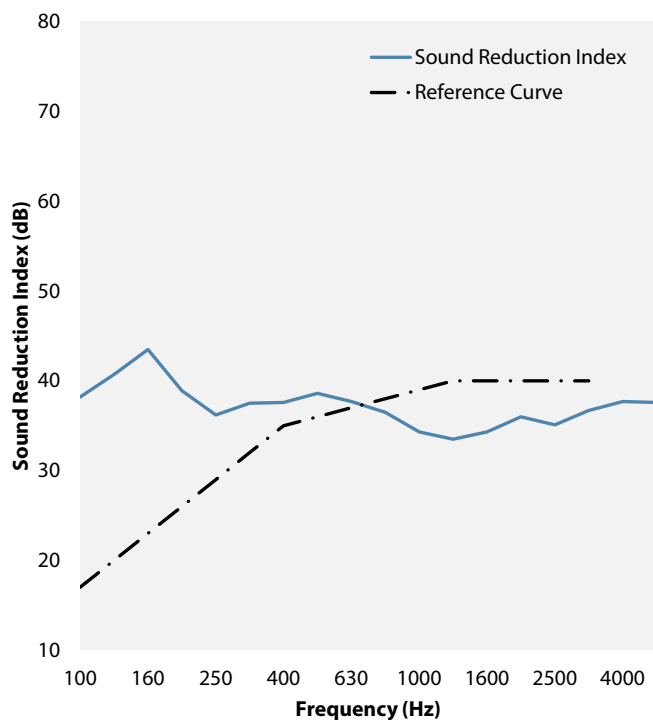
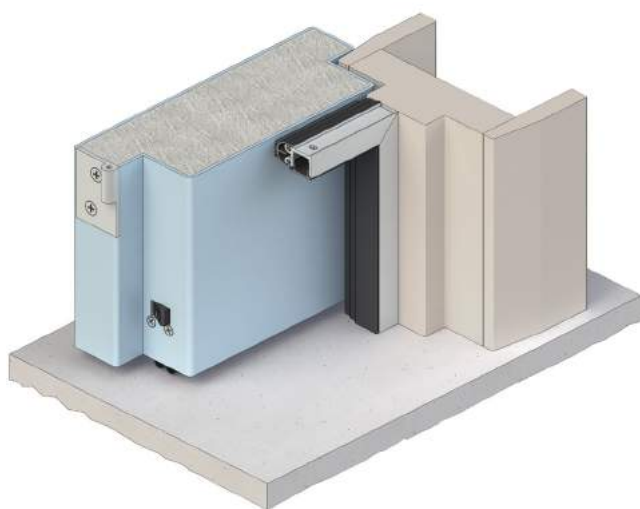


RP78Si RP530 RP70



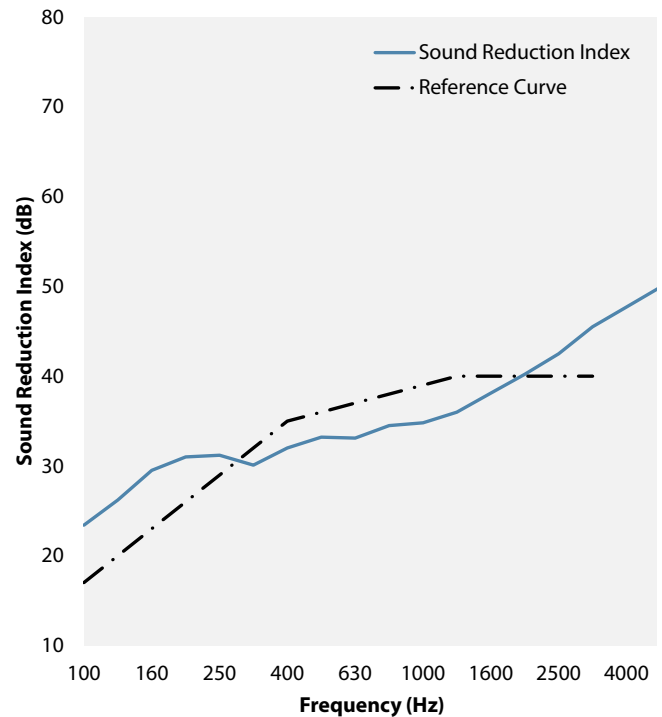
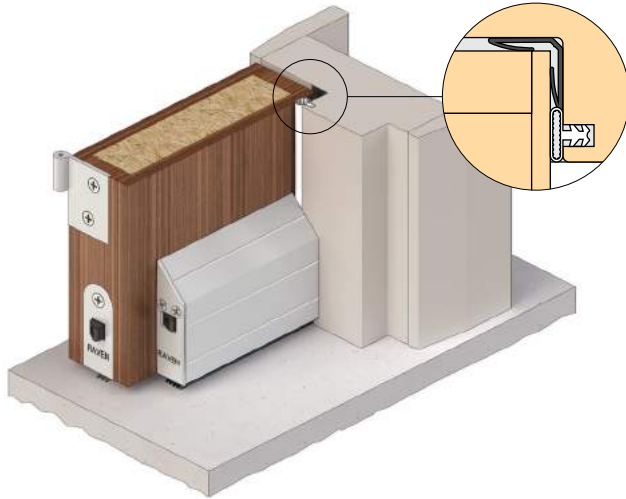
TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
077	50mm	N/A	33	34	22.2	25.0	23.0	29.2	27.2	27.1	29.0	31.9	31.4	31.9	31.8	31.6	34.4	38.1	39.5	39.7	41.0	40.9

RP10Si RP127Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																		
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	
078	68mm	1276.2 kg/m³	35	36	38.2	40.7	43.5	38.9	36.2	37.5	37.6	38.6	37.7	36.5	34.3	33.5	34.3	36.0	35.1	36.7	37.7	37.6	

RP120 RP520 RP8Si RP99Si

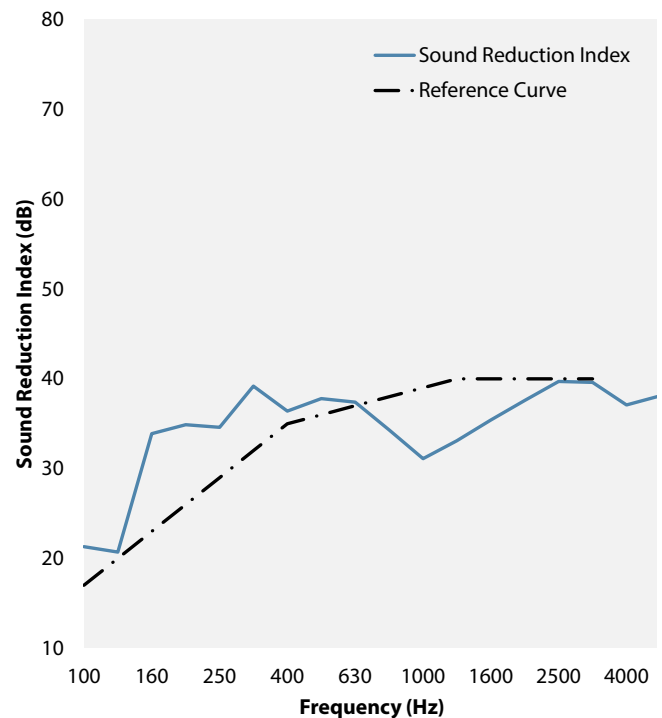
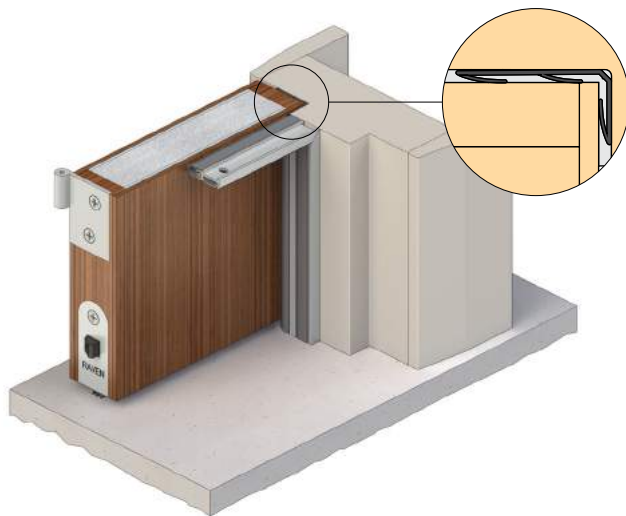


TEST	PROPRIETARY DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
079	44mm	630.0 kg/m³	36*	36	23.4	26.2	29.5	31.0	31.2	30.1	32.0	33.2	33.1	34.5	34.8	36.0	38.1	40.2	42.5	45.5	47.7	49.9

*STC estimation

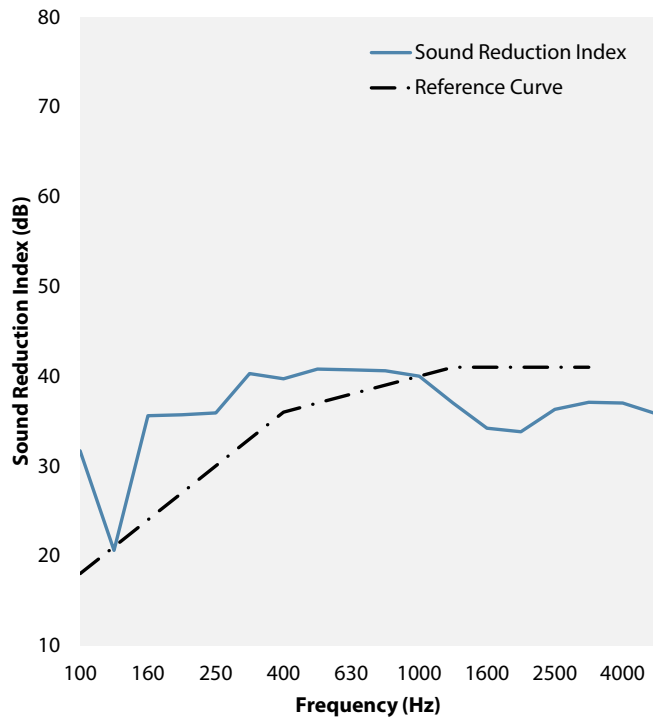
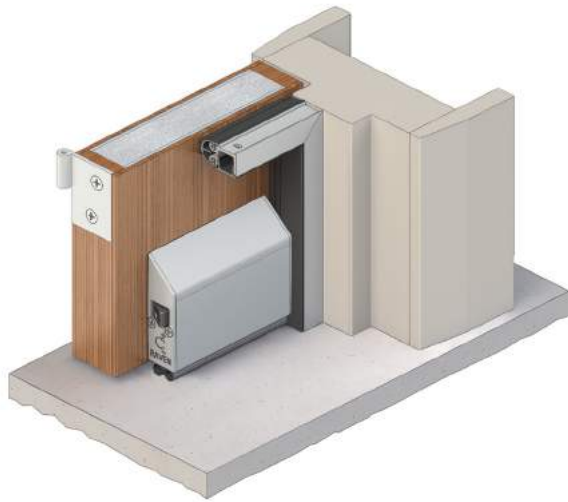
*STC estimation

RP78Si RP124 RP8Si



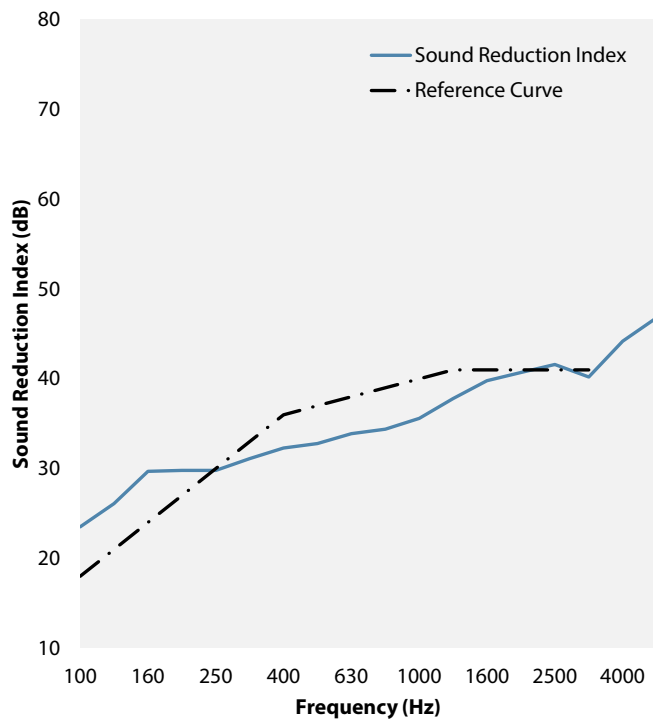
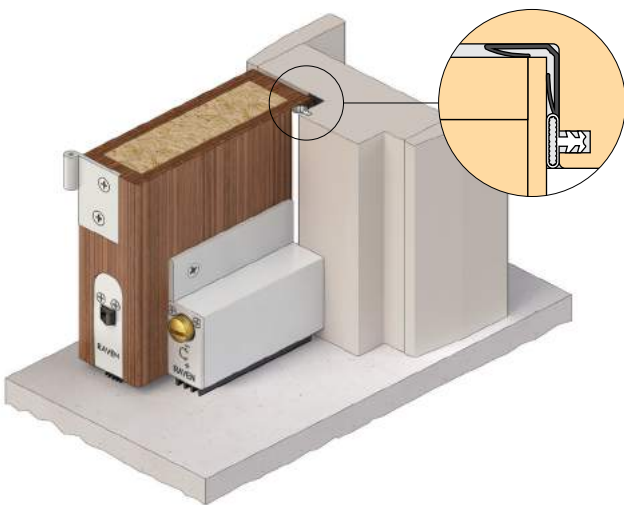
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
056	35mm	1102.9 kg/m³	36	36	21.3	20.7	33.9	34.9	34.6	39.2	36.4	37.8	37.4	34.3	31.1	33.1	35.4	37.6	39.7	39.6	37.1	38.1

RP10Si RP128Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
053	35mm	1102.9 kg/m ³	37	37	21.7	20.6	35.6	35.7	35.9	40.3	39.7	40.8	40.7	40.6	40.0	37.0	34.2	33.8	36.3	37.1	37.0	35.8

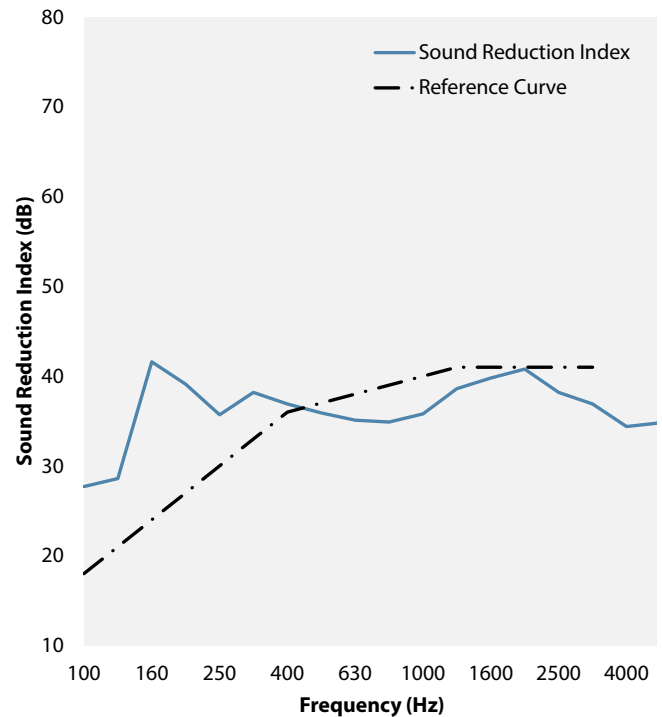
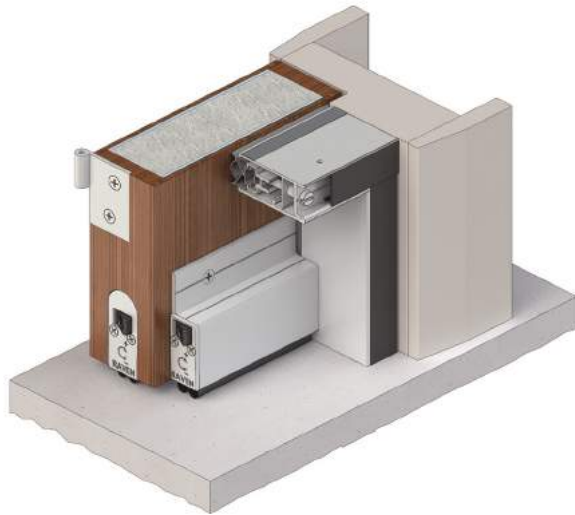
RP120 RP520 RP38 RP99Si



TEST	PROPRIETARY DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
080	44mm	630.0 kg/m³	37*	37	23.5	26.1	29.7	29.8	29.8	31.1	32.3	32.8	33.9	34.4	35.6	37.8	39.8	40.7	41.6	40.2	44.2	46.8

*STC estimation

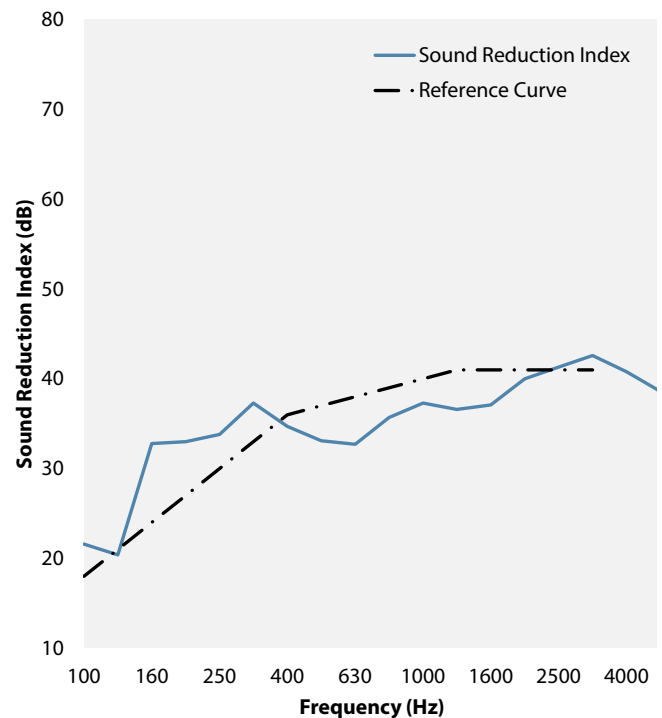
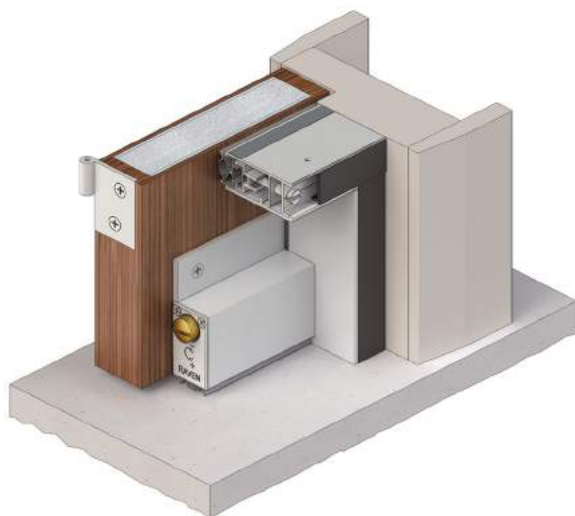
RP24Si RP127Si RP126Si



Perimeter seal adjustment independent of fixings

TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
081	48mm	916.9 kg/m ³	37	37	27.7	28.6	41.6	39.1	35.7	38.2	36.9	35.9	35.1	34.9	35.8	38.6	39.8	40.8	38.2	36.9	34.4	34.8

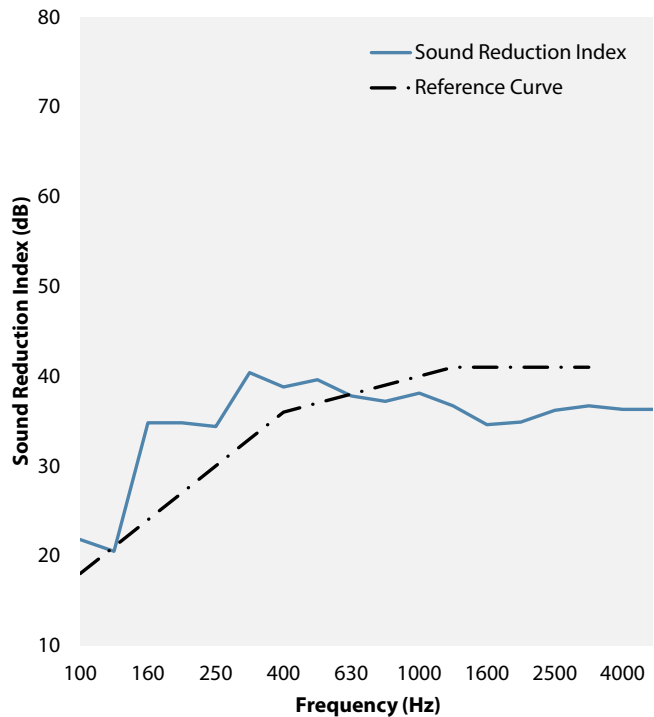
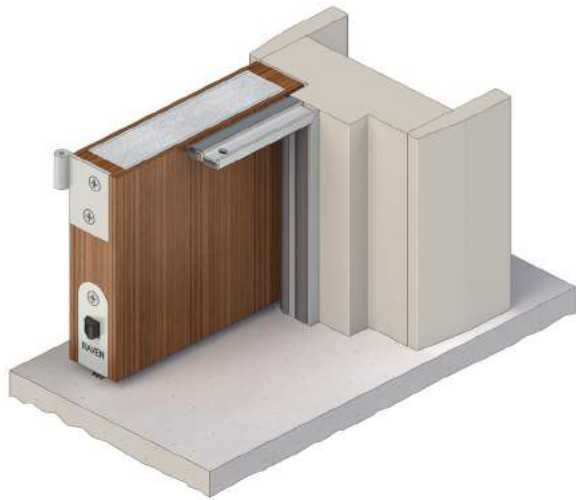
RP24Si RP38Si



Perimeter seal adjustment independent of fixings

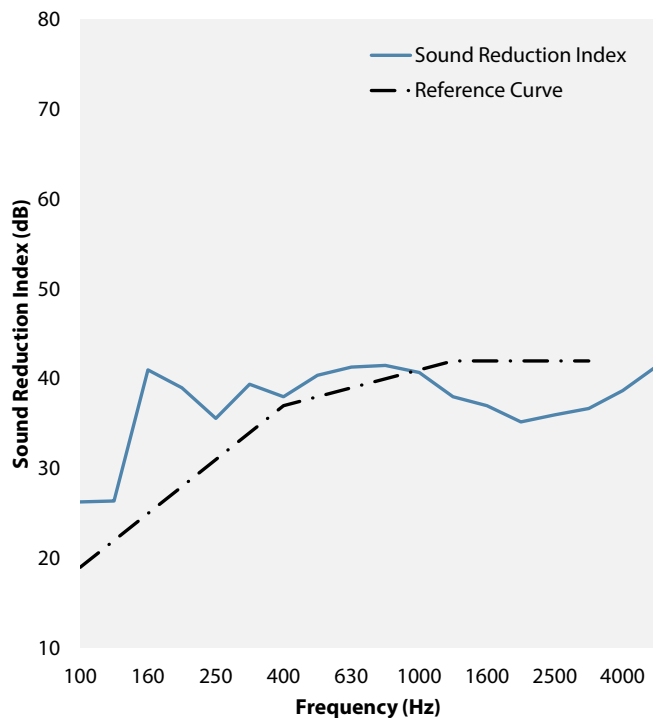
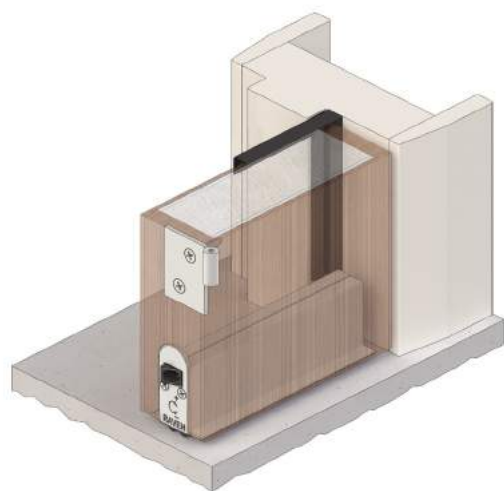
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
082	35mm	1102.9 kg/m ³	37	37	21.6	20.4	32.8	33.0	33.8	37.3	34.7	33.1	32.7	35.7	37.3	36.6	37.1	40.3	41.3	42.6	40.8	38.6

RP78Si RP8Si



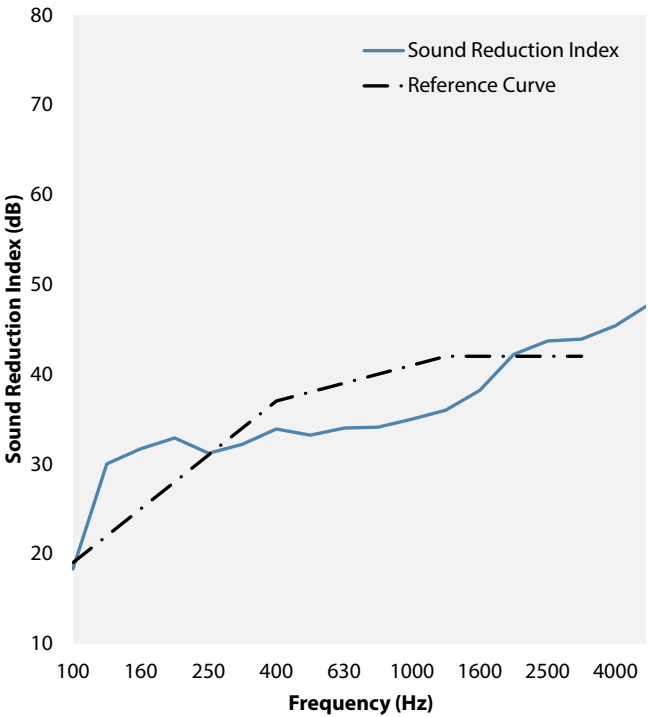
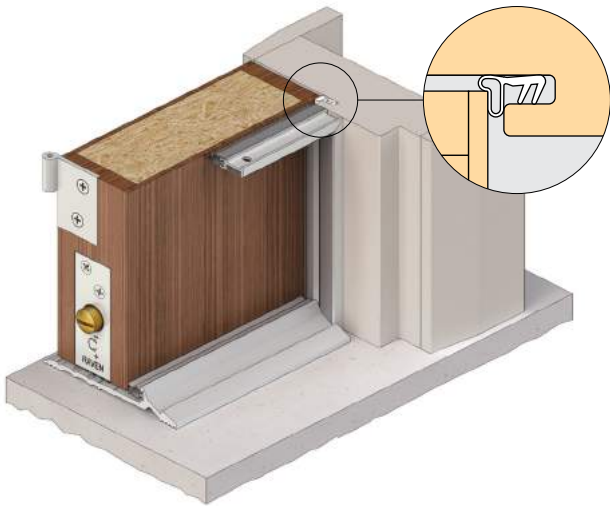
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
083	35mm	1102.9 kg/m ³	36	37	21.8	20.5	34.8	34.8	34.4	40.4	38.8	39.6	37.8	37.2	38.1	36.7	34.6	34.9	36.2	36.7	36.3	36.3

RP120 RP127Si



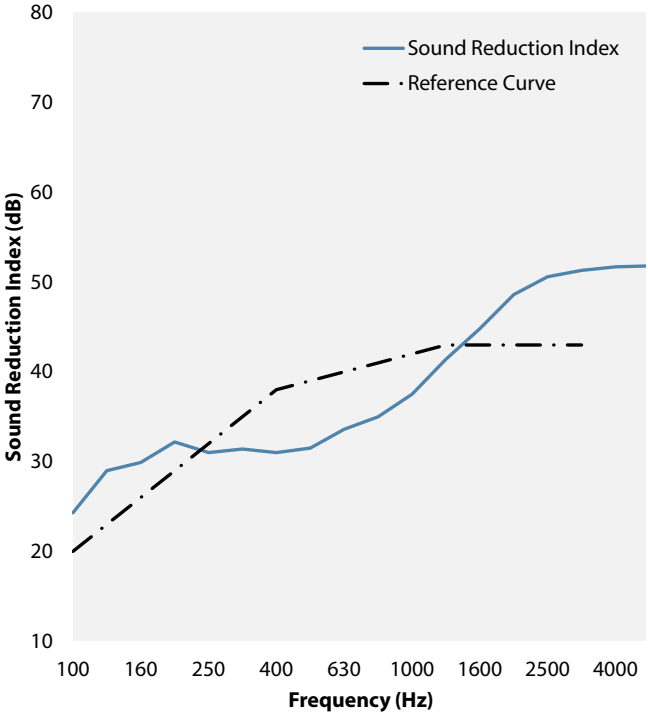
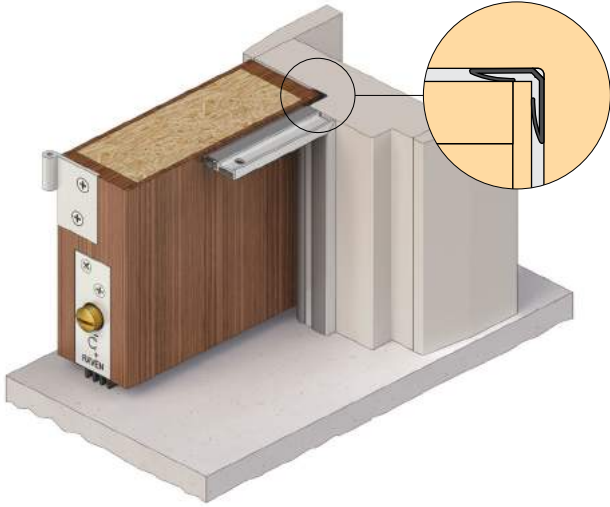
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
084	48mm	916.9 kg/m³	38	38	26.3	26.4	41.0	39.0	35.6	39.4	38.0	40.4	41.3	41.5	40.7	38.0	37.0	35.2	36.0	36.7	38.7	41.4

RP78Si RP530 RP70 RP117Si



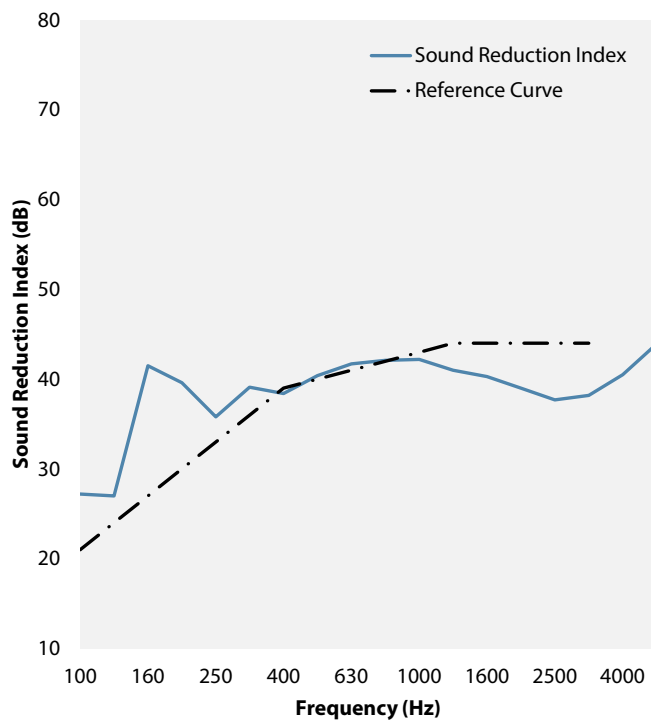
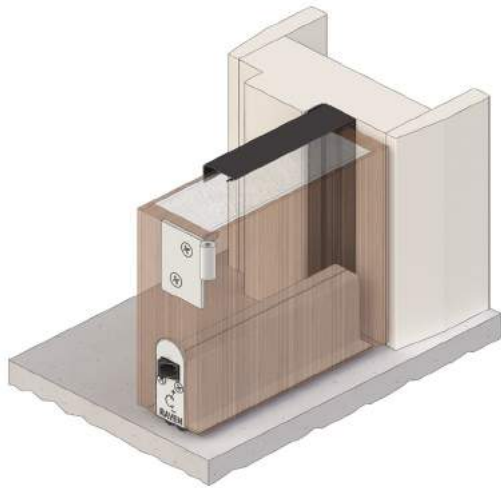
TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
085	53mm	N/A	37	38	18.3	30.0	31.7	32.9	31.2	32.2	33.9	33.2	34.0	34.1	35.0	36.0	38.2	42.2	43.7	43.9	45.4	47.8

RP78Si RP120 RP70



TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
086	53mm	N/A	38	39	24.3	29.0	29.9	32.2	31.0	31.4	31.0	31.5	33.6	35.0	37.5	41.4	44.8	48.6	50.6	51.3	51.7	51.8

RP124 RP127Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
060	48mm	916.9 kg/m³	40	40	27.2	27.0	41.5	39.6	35.8	39.1	38.4	40.4	41.7	42.1	42.2	41.0	40.3	39.0	37.7	38.2	40.5	43.9

d'Arenberg Cube

Set among the vines in the heart of McLaren Vale's wine region sits the d'Arenberg Cube. The glass-encased multi-purpose building is arguably one of the most iconic tourism destinations in Australia, receiving an award for best architectural design in the 2018 Australian Good Design Awards. The d'Arenberg Cube has succeeded to capture attention and increase visitors to the area.

Inside the 5 storey building is a new cellar door, bars, private function rooms, a restaurant and a museum on the ground floor. Each level of the d'Arenberg Cube has a spectacular view of the surrounding wine region.

To meet the building's various sealing requirements and to compliment the prestigious nature of the project, Raven was specified due to its trusted reputation and its high quality products.

Raven provided sealing solutions for the various doors throughout the project, including the unique folding glass doors along the external perimeter of the building. These doors were sealed by Raven to meet NCC mandated compliance for weather and energy in a heavy duty use application that required minimal maintenance.



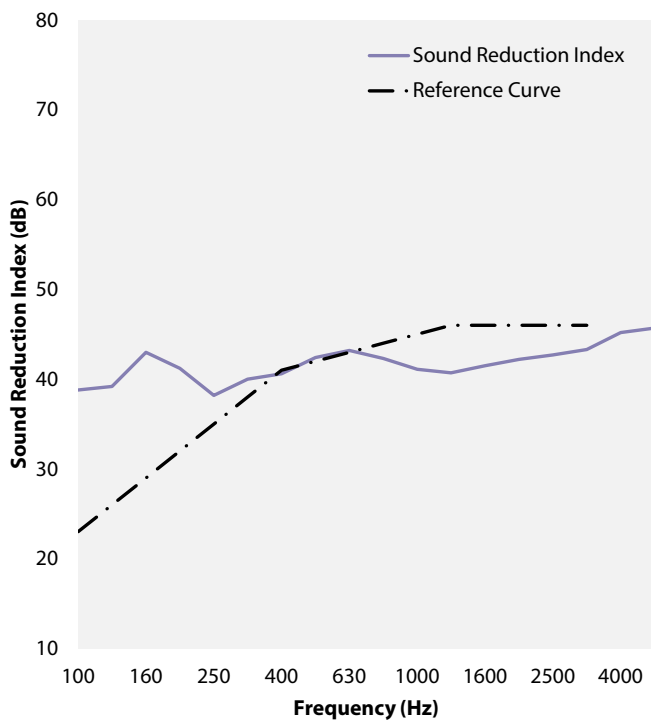
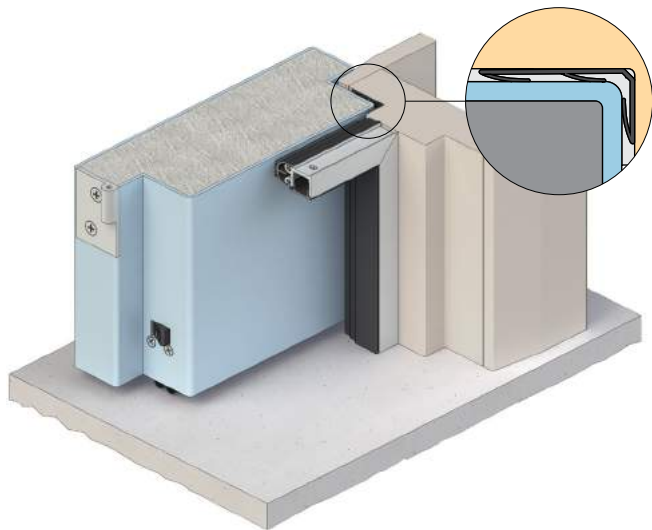


R_w41 - 50+ Acoustic Sealing Systems for Proprietary Doors

Doors tested were proprietary brand acoustic doors.

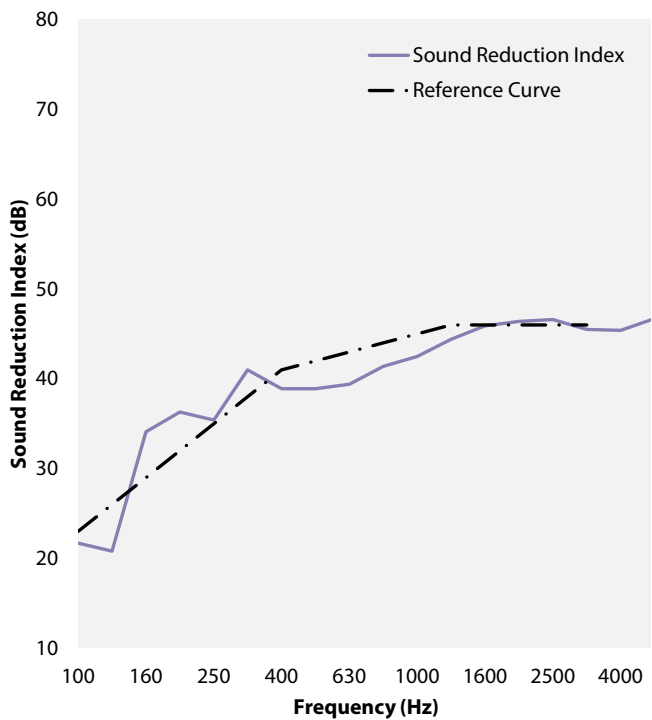
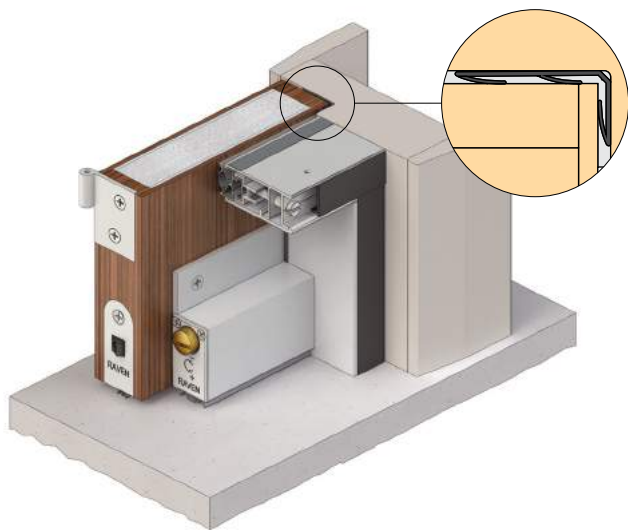


RP10Si RP124 RP127Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
089	68mm	1276.2 kg/m ³	42	42	38.8	39.2	43.0	41.2	38.2	40.0	40.6	42.4	43.2	42.3	41.1	40.7	41.5	42.2	42.7	43.3	45.2	45.7

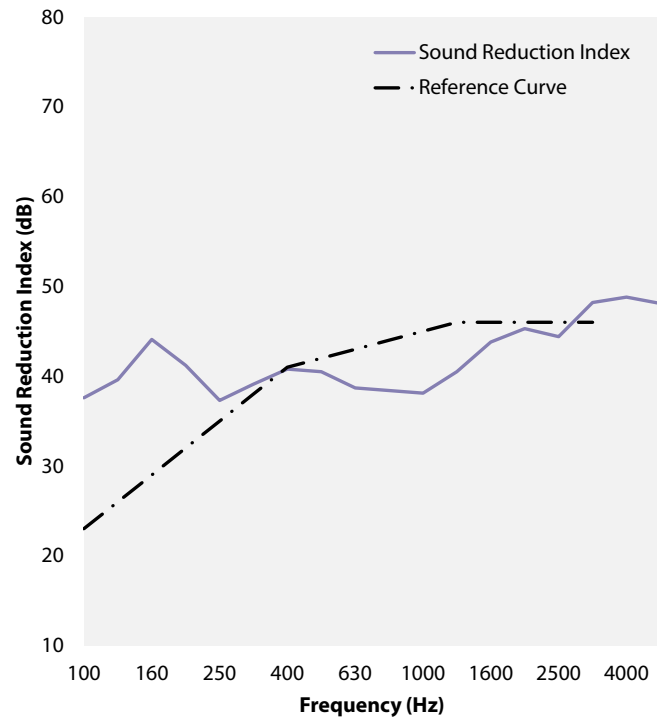
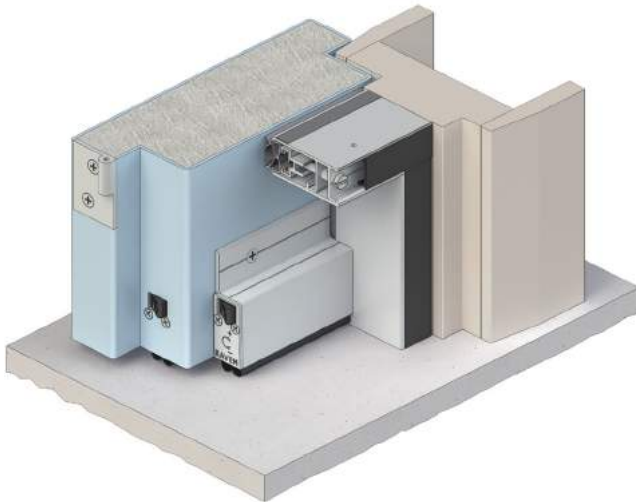
RP24Si RP124 RP8Si RP38Si



Perimeter seal adjustment independent of fixings

TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																		
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	
091	35mm	1102.9 kg/m ³	42	42	21.7	20.8	34.1	36.3	35.4	41.0	38.9	38.9	39.4	41.4	42.5	44.4	45.9	46.4	46.6	45.5	45.4	46.7	

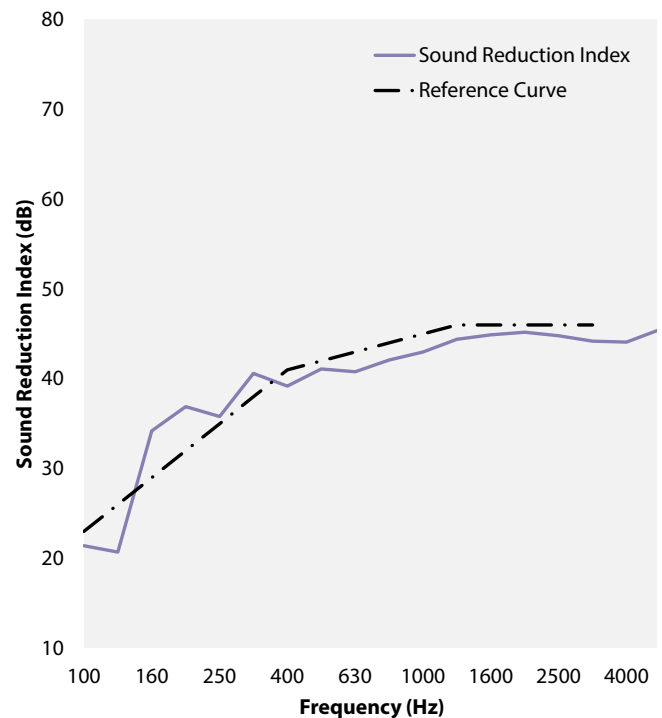
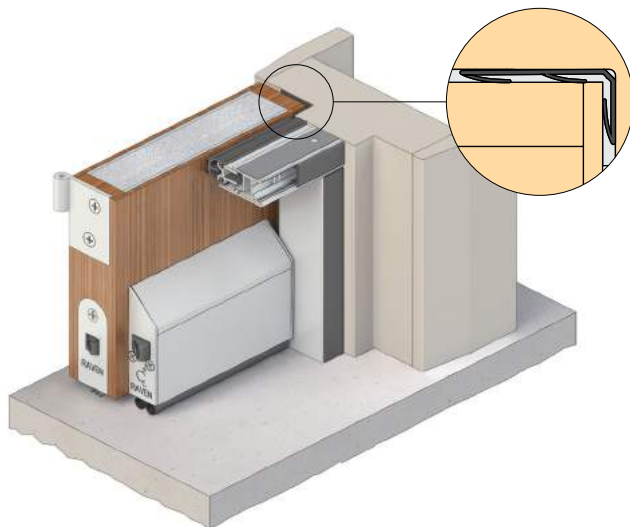
RP24Si RP127Si RP126Si



Perimeter seal adjustment independent of fixings

TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
092	68mm	1276.2 kg/m ³	42	42	37.6	39.6	44.1	41.2	37.3	39.1	40.7	40.5	38.7	38.4	38.1	40.5	43.8	45.3	44.4	48.2	48.8	48.1

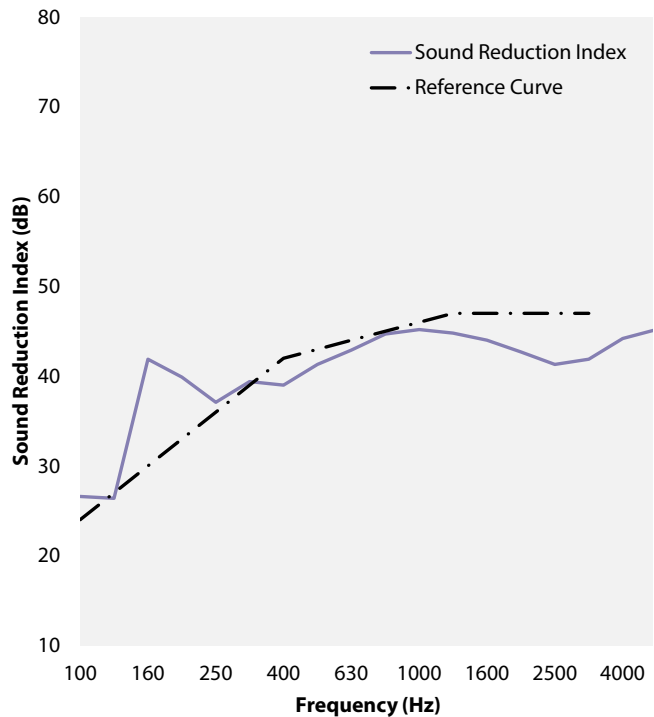
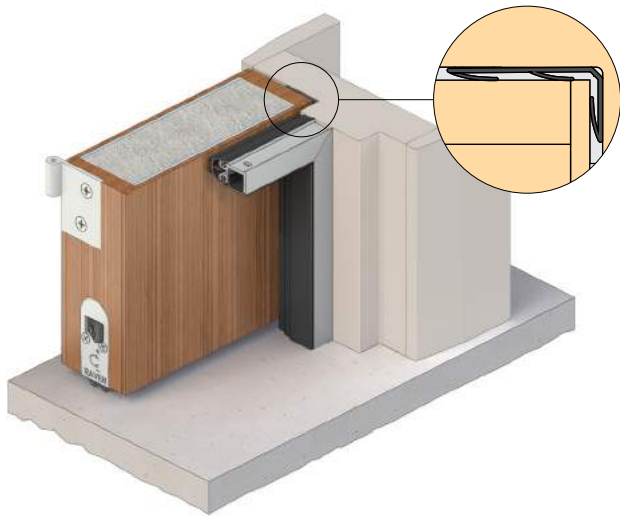
RP87Si RP124 RP8Si RP128Si



Perimeter seal adjustment independent of fixings

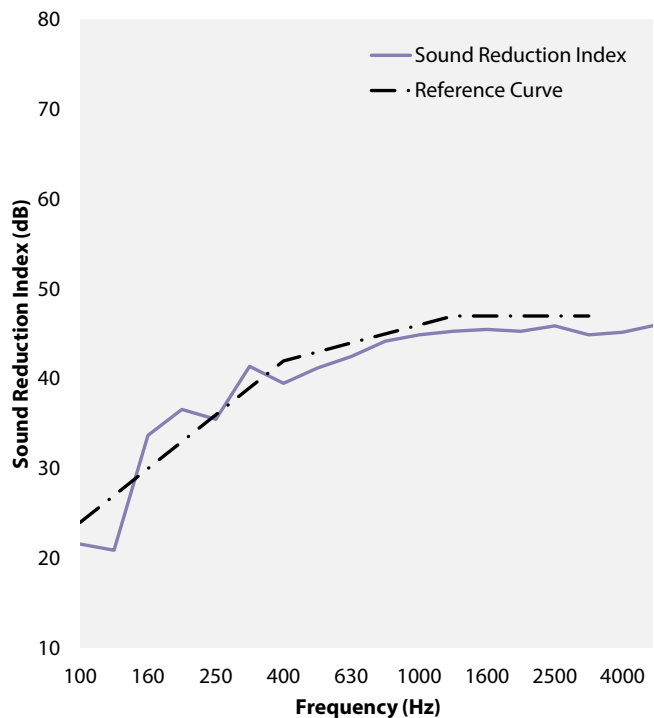
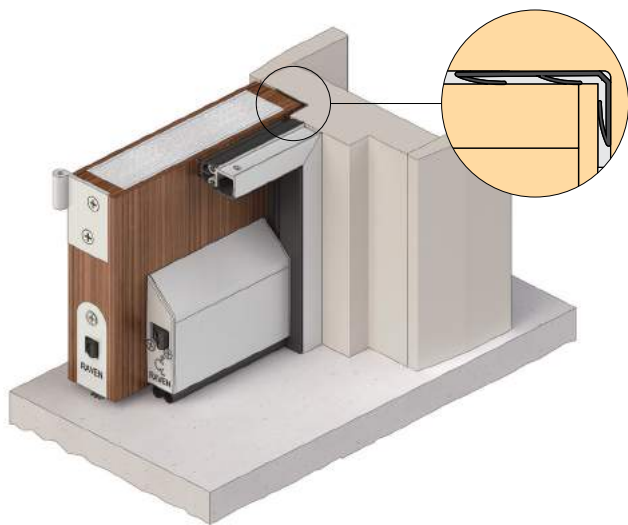
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
058	35mm	1102.9 kg/m³	42	42	21.4	20.7	34.2	36.9	35.8	40.6	39.2	41.1	40.8	42.1	43.0	44.4	44.9	45.2	44.8	44.2	44.1	45.5

RP10Si RP124 RP127Si



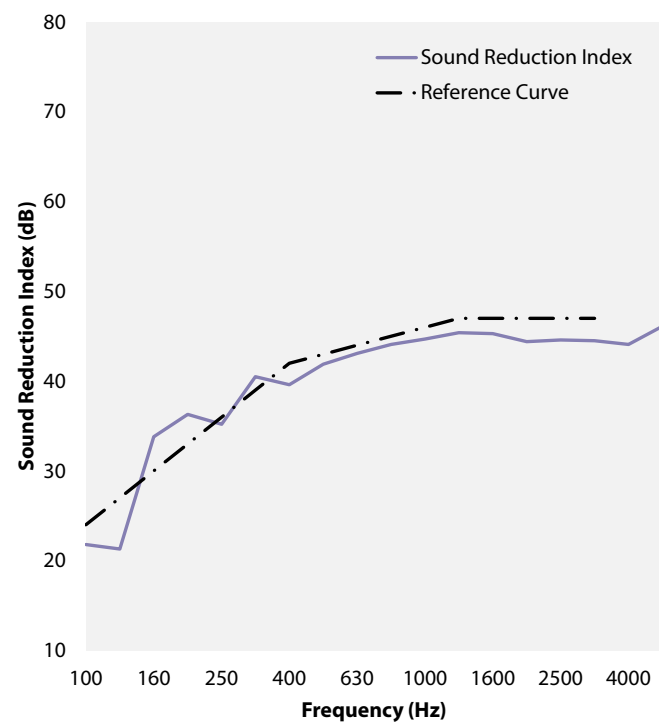
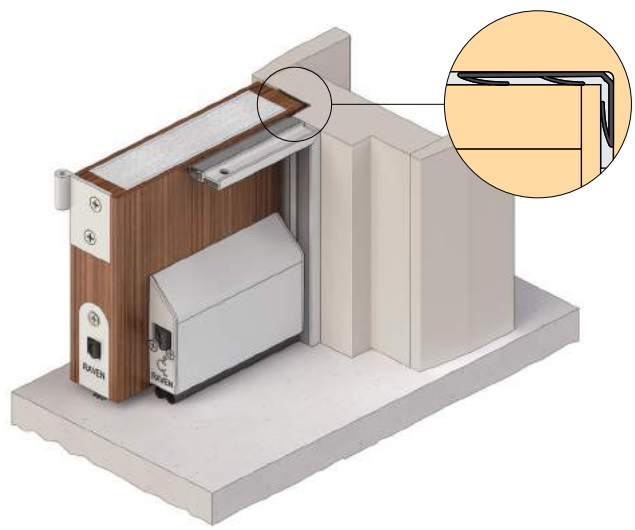
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
054	48mm	916.9 kg/m³	43	43	26.6	26.4	41.9	39.9	37.1	39.4	39.0	41.3	42.9	44.7	45.2	44.8	44.0	42.7	41.3	41.9	44.2	45.2

RP10Si RP124 RP8Si RP128Si



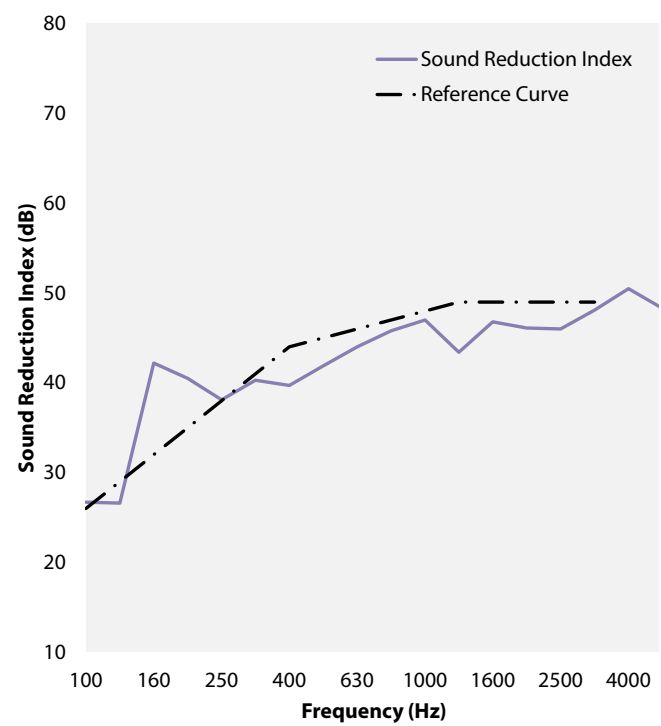
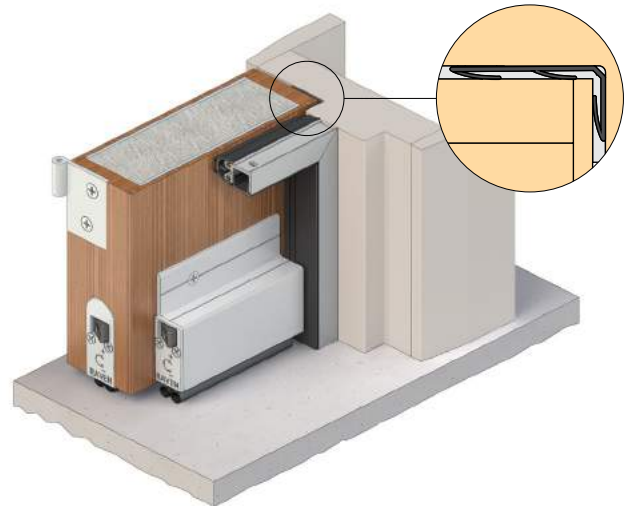
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
093	35mm	1102.9 kg/m³	43	43	21.6	20.9	33.7	36.6	35.5	41.4	39.5	41.2	42.5	44.2	44.9	45.3	45.5	45.3	45.9	44.9	45.2	46.0

RP78Si RP124 RP8Si RP128Si



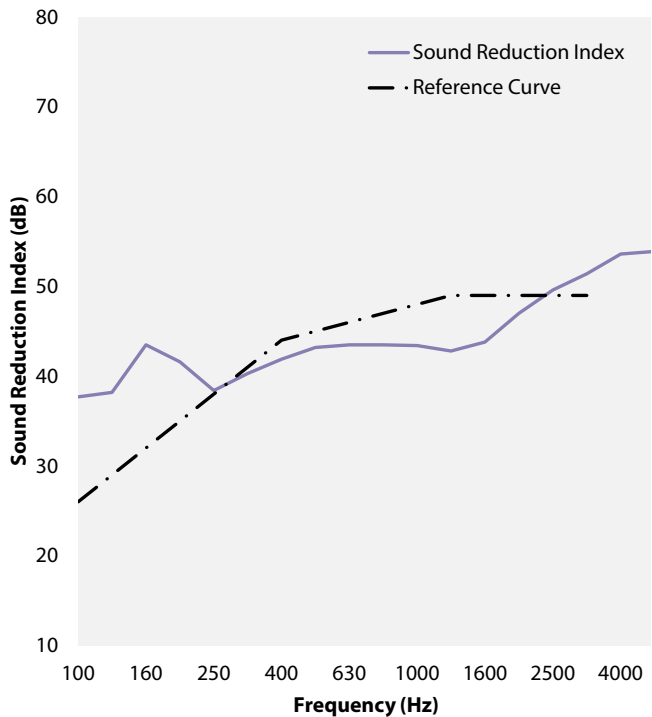
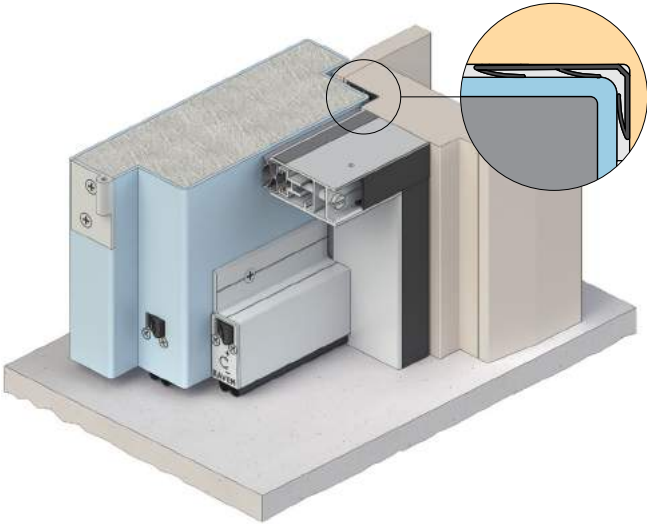
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
094	35mm	1102.9 kg/m³	43	43	21.8	21.3	33.8	36.3	35.2	40.5	39.6	41.9	43.1	44.1	44.7	45.4	45.3	44.4	44.6	44.5	44.1	46.1

RP10Si RP124 RP127Si RP126Si



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
055	48mm	916.9 kg/m³	45	45	26.7	26.6	42.2	40.5	38.1	40.3	39.7	41.9	44.0	45.8	47.0	46.4	46.8	46.1	46.0	48.1	50.5	48.3

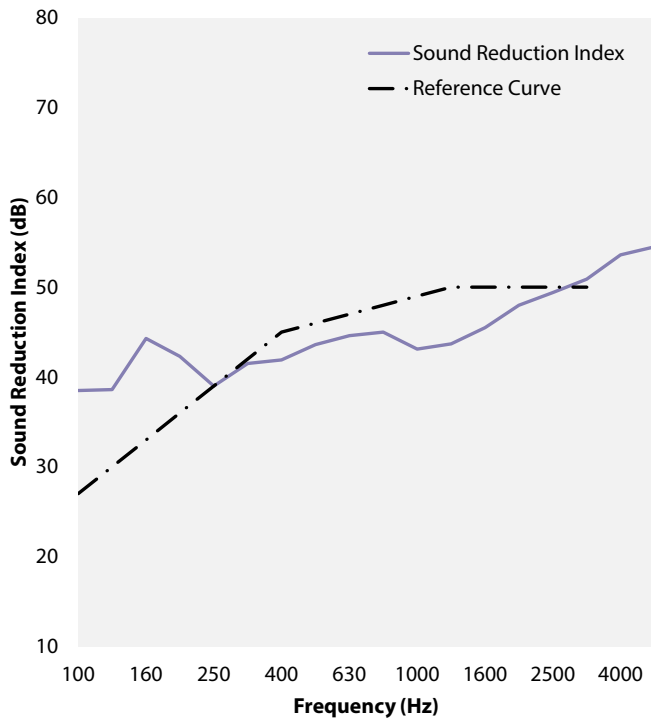
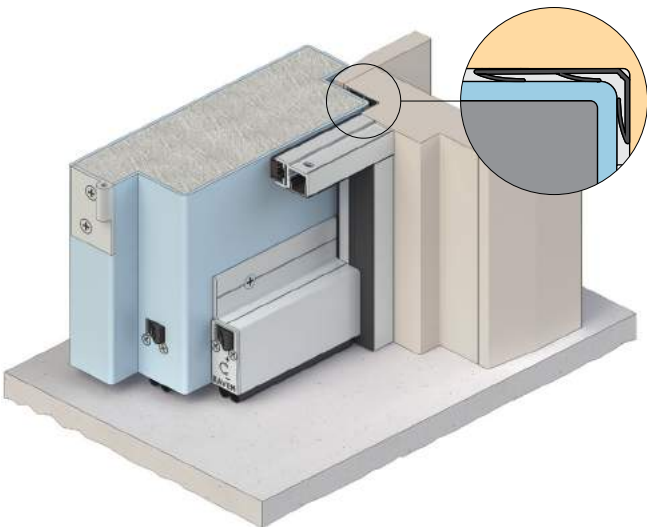
RP24Si RP124 RP127Si RP126Si



Perimeter seal adjustment independent of fixings

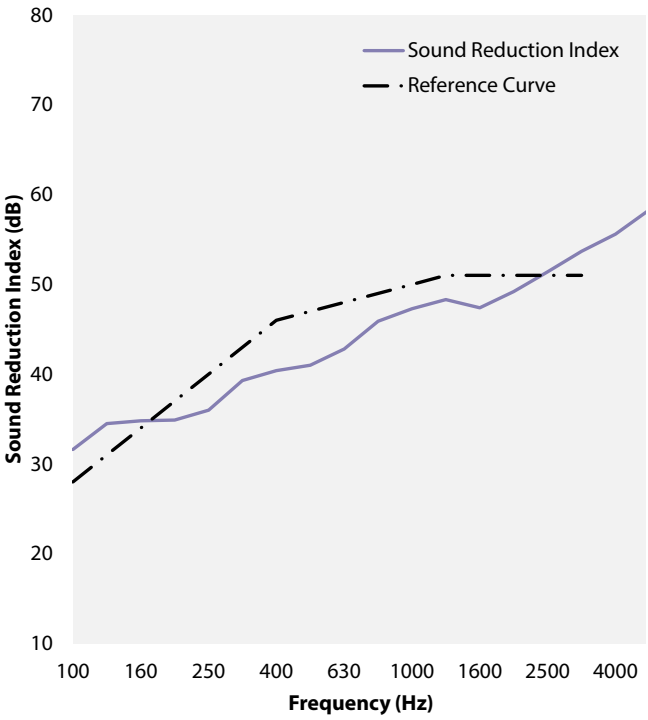
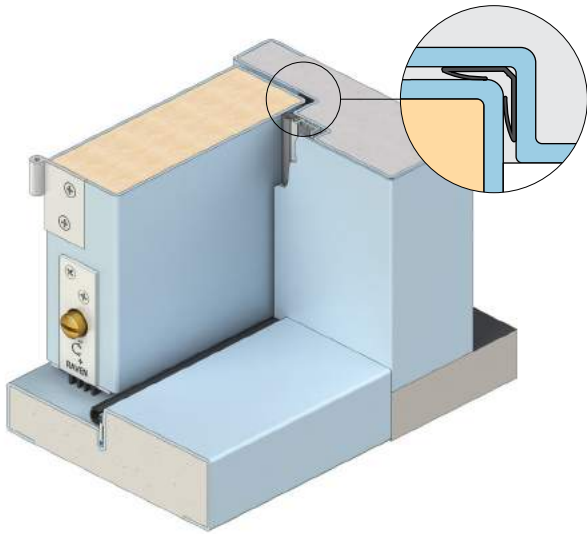
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
095	68mm	1276.2 kg/m³	45	45	37.7	38.2	43.5	41.6	38.4	40.3	41.9	43.2	43.5	43.5	43.4	42.8	43.8	47.0	49.6	51.4	53.6	53.9

RP85 RP124 RP127Si RP126Si



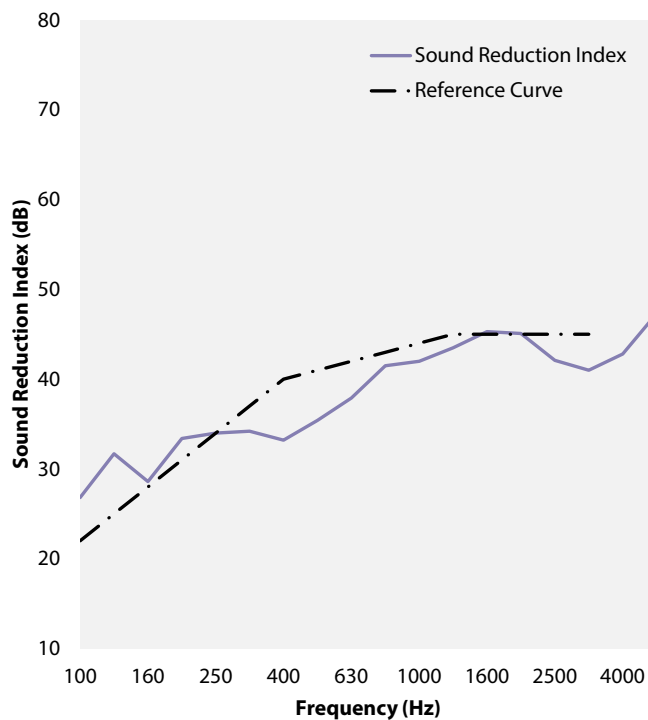
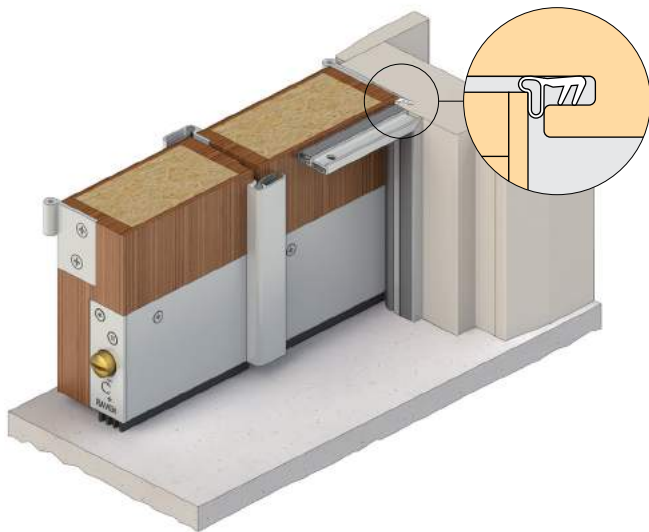
TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
057	68mm	1276.2 kg/m³	46	46	38.5	38.6	44.3	42.3	39.0	41.5	41.9	43.6	44.6	45.0	43.1	43.7	45.5	48.0	49.4	50.9	53.6	54.5

RP78Si RP120 RP70 RP71 with RP393Si gasket



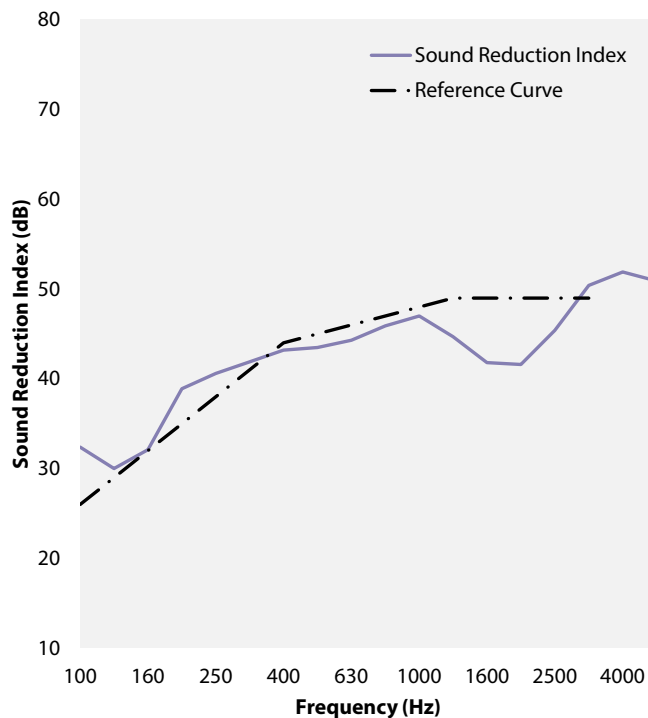
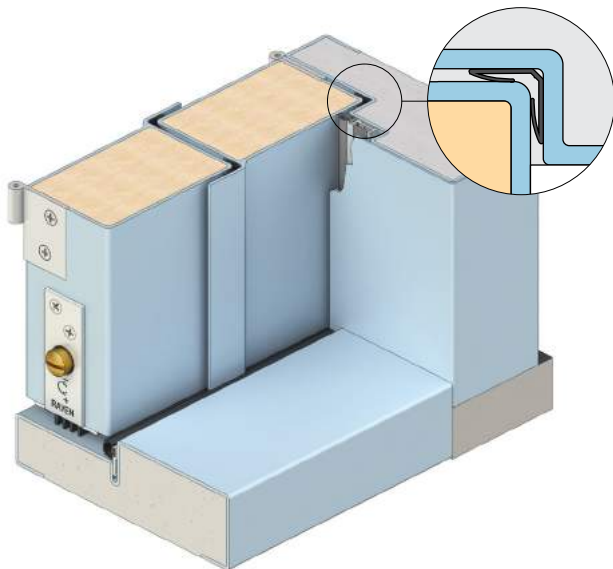
TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
096	54mm	N/A	46	47	31.6	34.5	34.8	34.9	36.0	39.3	40.4	41.0	42.8	45.9	47.3	48.3	47.4	49.2	51.4	53.7	55.6	58.3

RP78Si RP530 RP38 RP16Si



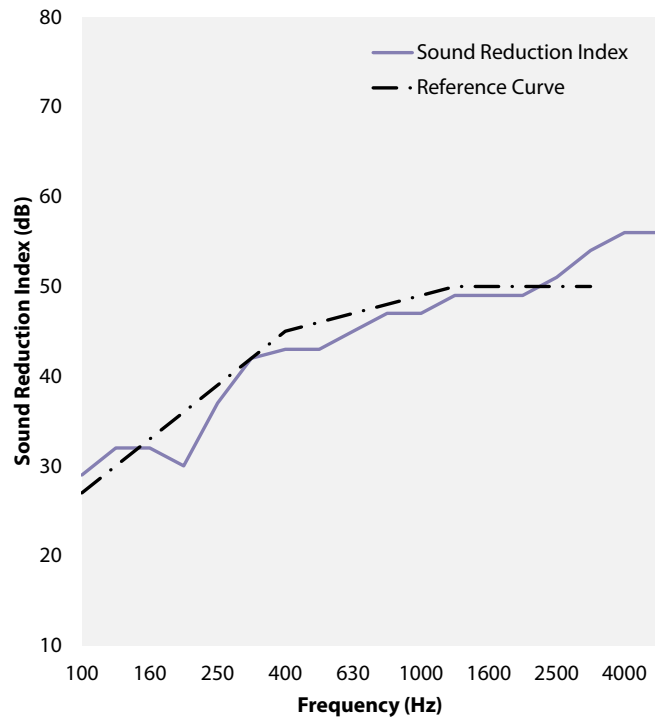
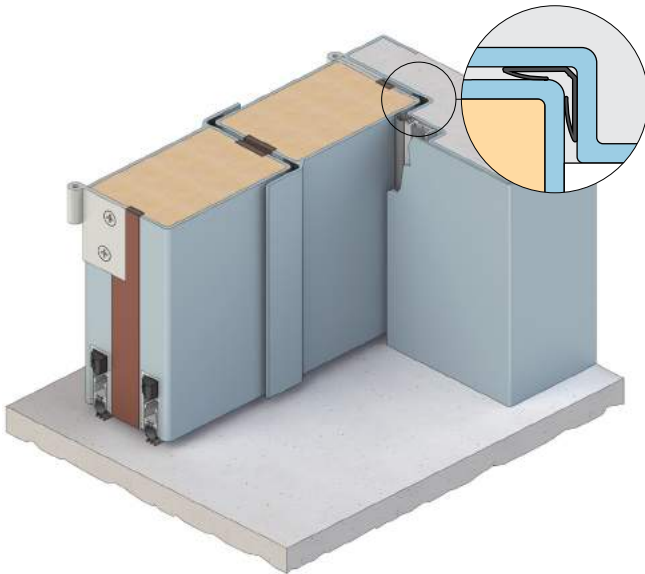
TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
050	54mm	N/A	40	41	26.8	31.7	28.6	33.4	34.0	34.2	33.2	35.4	37.9	41.5	42.0	43.5	45.3	45.1	42.1	41.0	42.8	47.3

RP78Si RP120 RP70 RP120 RP71 with RP393Si gasket



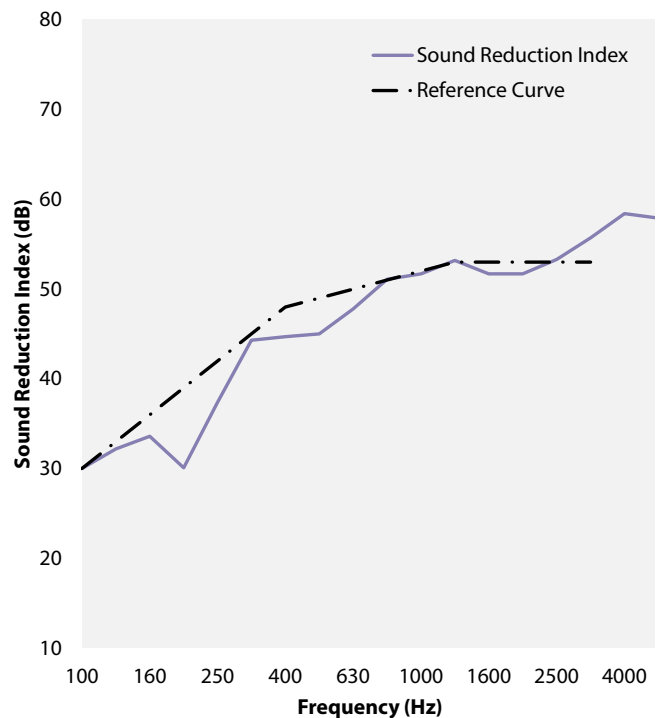
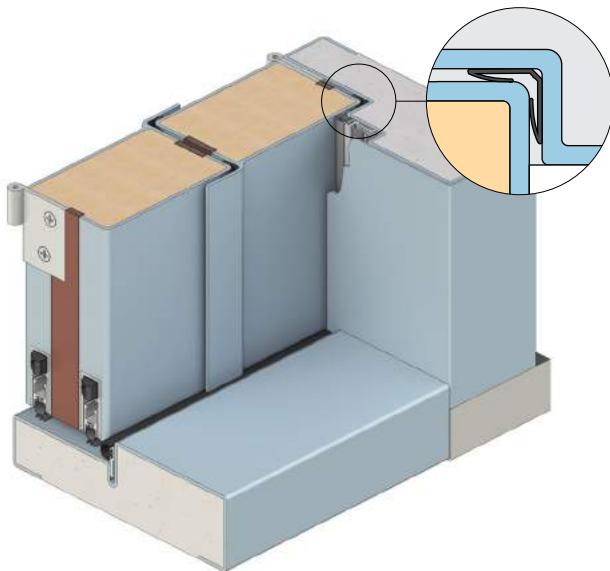
TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
098	54mm	N/A	45	45	32.4	30.4	32.1	38.9	40.6	41.9	43.2	43.5	44.3	45.9	47.0	44.7	41.8	41.6	45.4	50.4	51.9	50.9

RP78Si RP120 RP2004F RP8Si RP120 RP2004F



TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
051	60mm	N/A	46	46	29.0	32.0	32.0	30.0	37.0	42.0	43.0	43.0	45.0	47.0	47.0	49.0	49.0	49.0	51.0	54.0	56.0	56.0

RP78Si RP120 RP2004F RP8Si RP120 RP2004F RP71 with RP393Si gasket



TEST	TECHWIDE HK DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
052	60mm	N/A	48	49	30.0	32.2	33.6	30.1	37.4	44.3	44.7	45.0	47.8	51.1	51.7	53.2	51.7	51.7	53.3	55.7	58.4	57.9

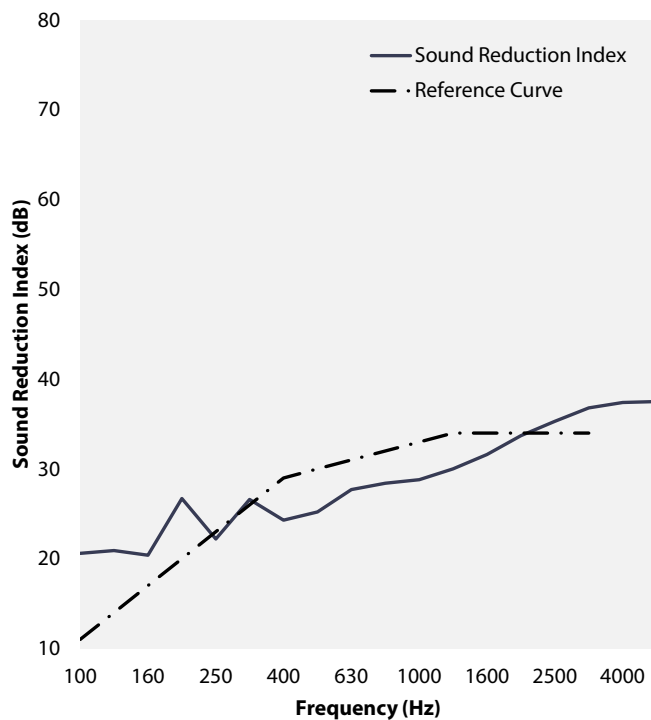
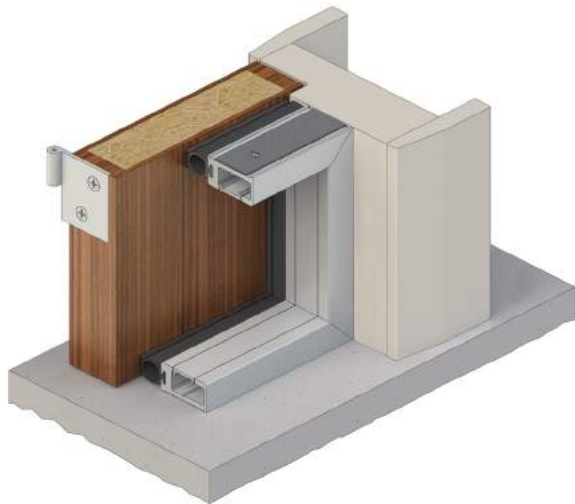
Acoustic Sealing Systems for Bulkhead, Interconnecting, Sliding and Pivot doors

Doors tested were standard solid core timber doors and proprietary brand acoustic doors.



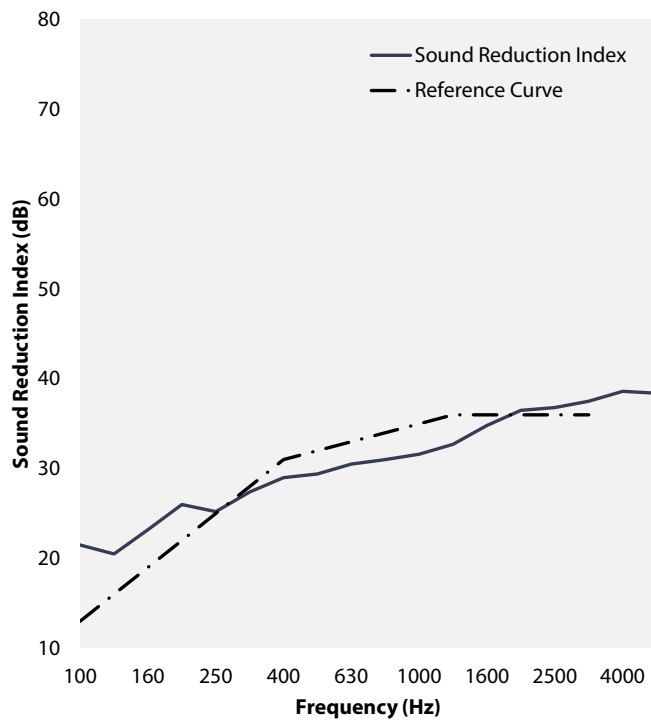
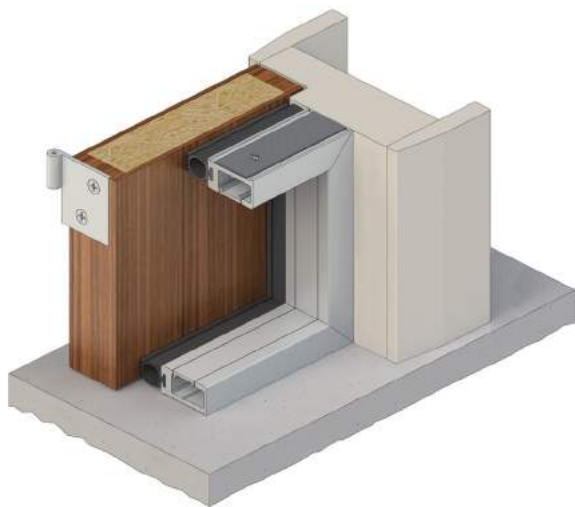


RP47Si



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
042	35mm	367.6 kg/m³	30	30	20.6	20.9	20.4	26.7	22.2	26.6	24.3	25.2	27.7	28.4	28.8	30.0	31.6	33.7	35.3	36.8	37.4	37.5

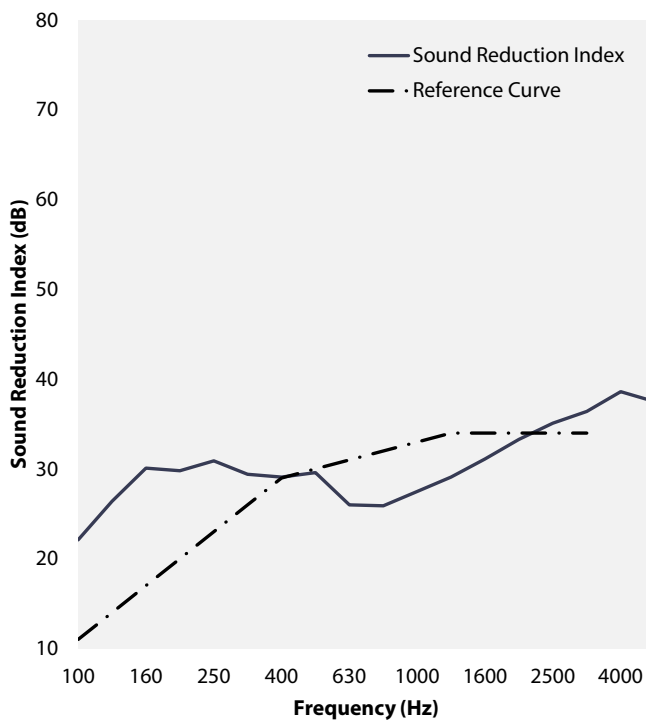
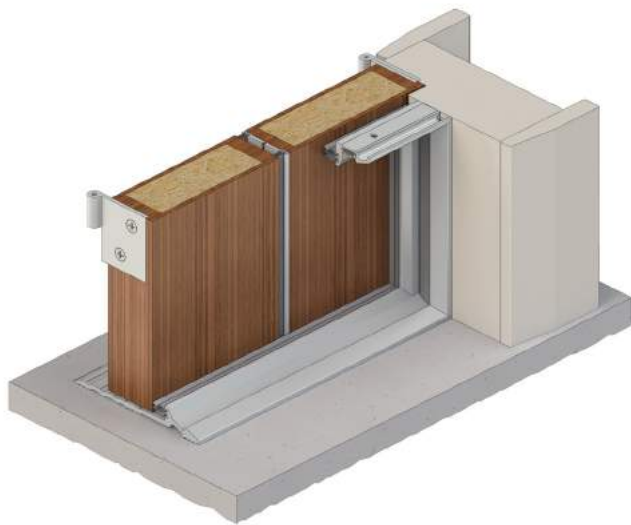
RP47Si



TEST	SOLID CORE DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																		
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	
043	44mm	367.6 kg/m³	32	32	21.5	20.5	23.2	26.0	25.2	27.4	29.0	29.9	29.4	30.5	31.0	31.6	32.7	34.8	36.5	37.5	38.6	38.4	

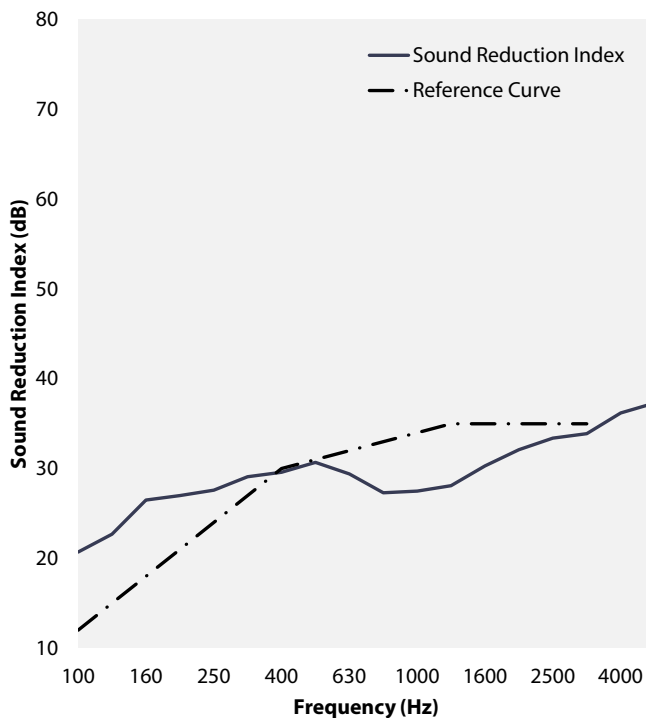
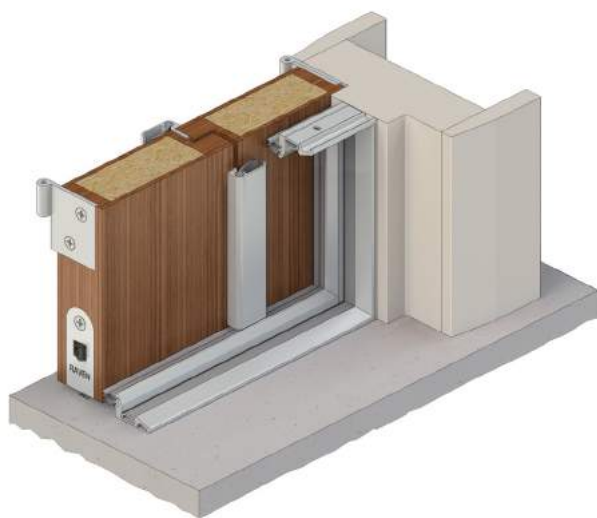


RP118Si RP71Si RP117Si



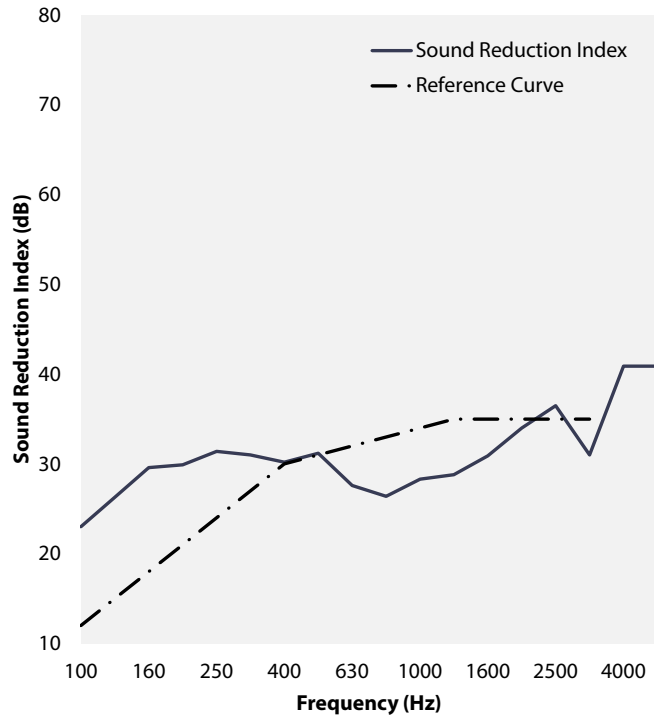
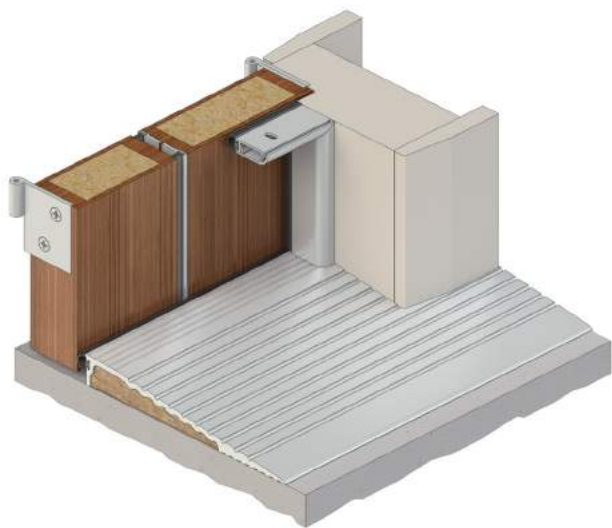
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
047	45mm	735.9 kg/m³	30	30	22.1	26.4	30.1	29.8	30.9	29.4	29.1	29.6	26.0	25.9	27.5	29.1	31.7	33.3	35.1	36.9	38.6	37.5

RP118Si RP8Si RP16Si



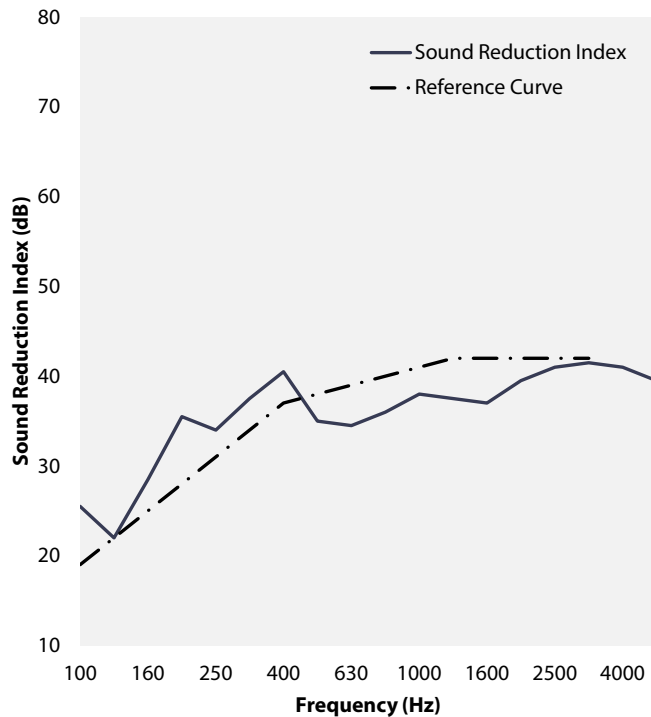
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
048	45mm	N/A	30	30	20.7	22.7	26.5	27.0	27.6	29.1	29.6	30.7	29.4	27.3	27.5	28.1	30.3	32.1	33.4	33.9	36.2	37.3

RP93Si RP71Si RP97Si



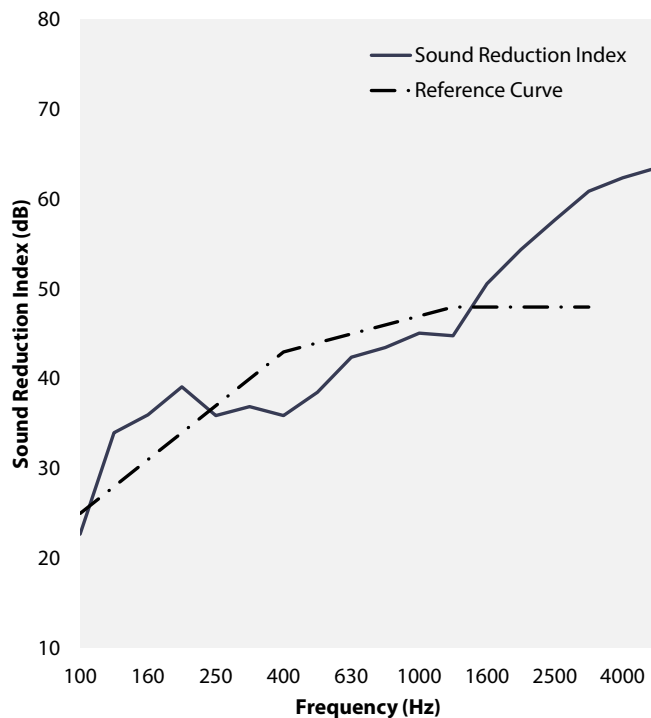
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
045	45mm	735.9 kg/m³	31	31	23.0	26.3	29.6	29.9	31.4	31.0	30.2	31.2	27.6	26.4	28.3	29.8	30.9	34.0	36.5	39.0	40.9	40.9

RP94Si RP8Si



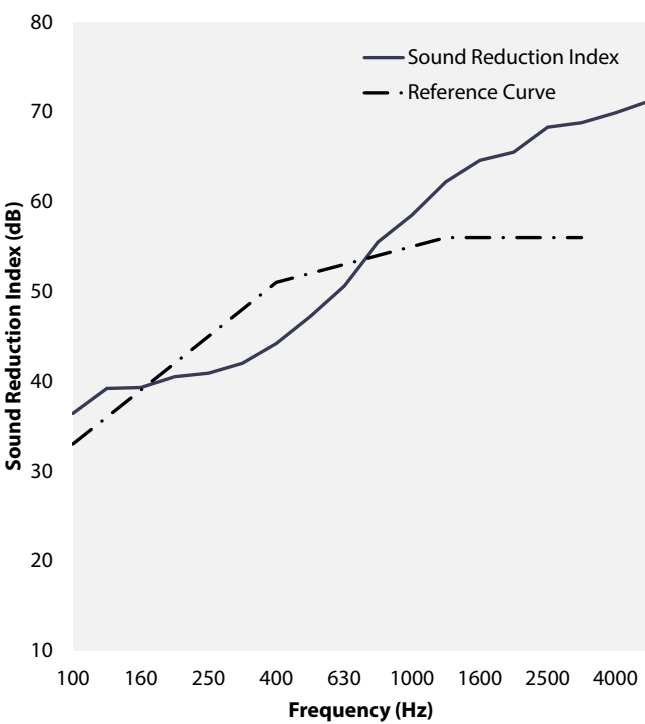
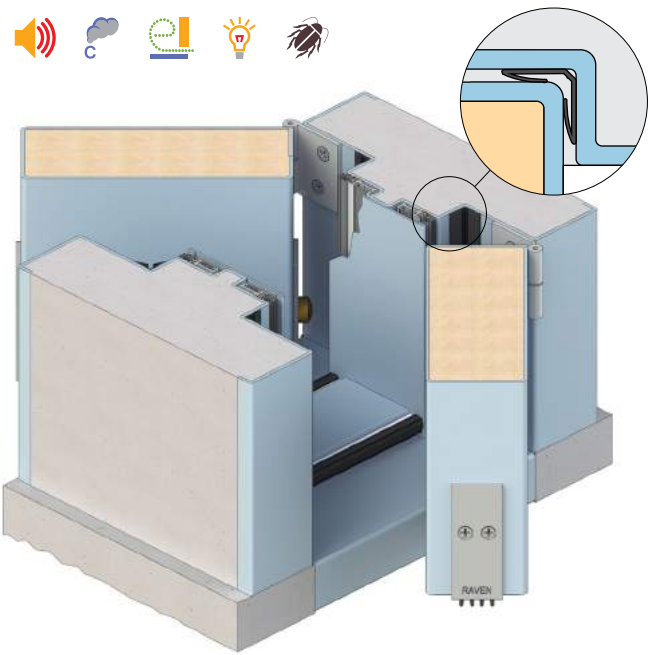
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
026	40mm	N/A	38	38	25.5	22.0	28.5	35.5	34.0	37.5	40.5	35.0	34.5	36.0	38.0	-	37.0	39.5	41.0	41.5	41.0	39.5

RP530 RP70



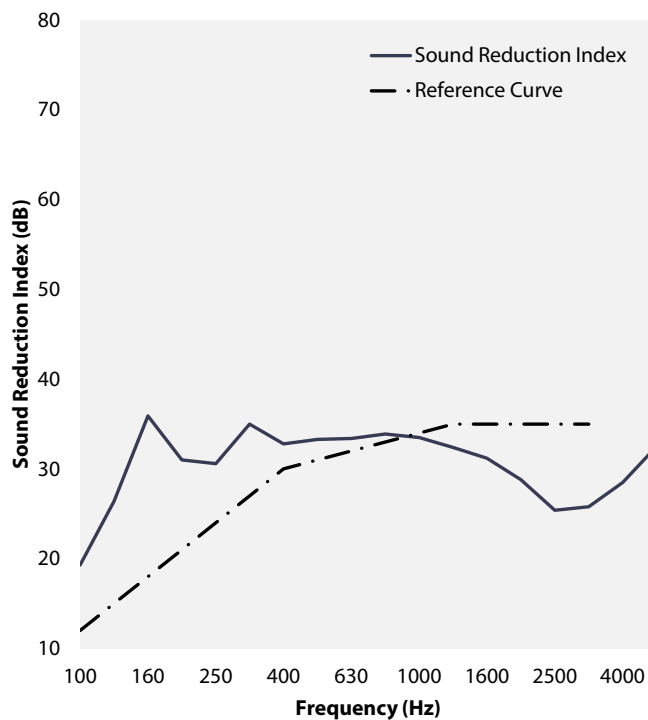
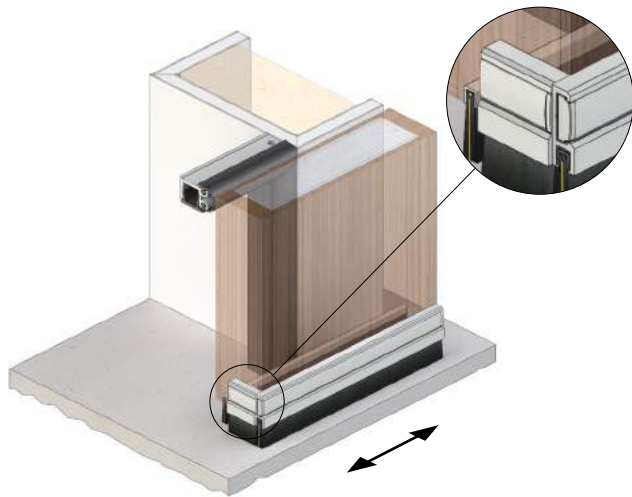
TEST	SOLID CORE DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																		
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	
099	50mm	N/A	44	44	22.7	34.0	36.0	39.1	35.9	36.9	35.9	38.5	42.4	43.5	45.1	44.8	50.6	54.4	57.7	60.9	62.4	63.5	

RP78Si RP120 RP70 RP71 with RP393Si gasket



TEST	TECHWIDE HK DOORS		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
100	54mm	N/A	52	52	36.4	39.2	39.3	40.5	40.9	42.0	44.2	47.2	50.6	55.5	58.5	62.2	64.6	65.5	68.3	68.8	69.9	71.2

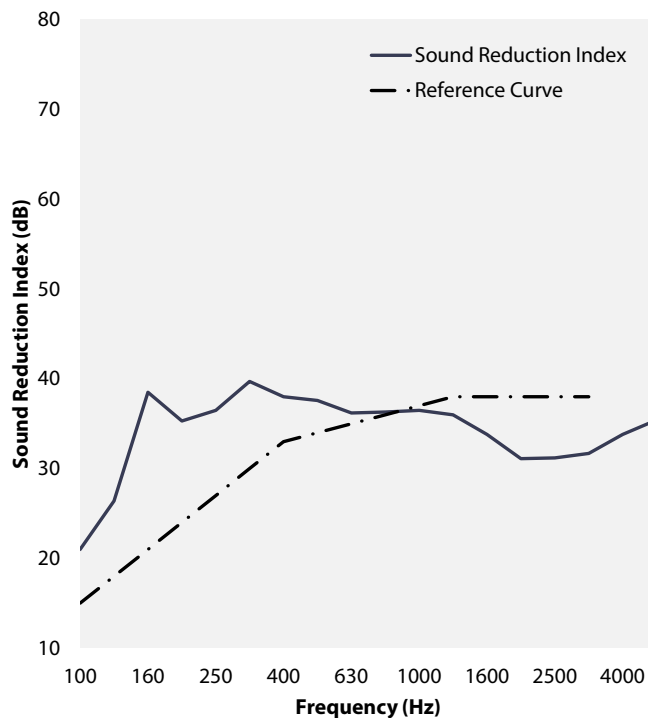
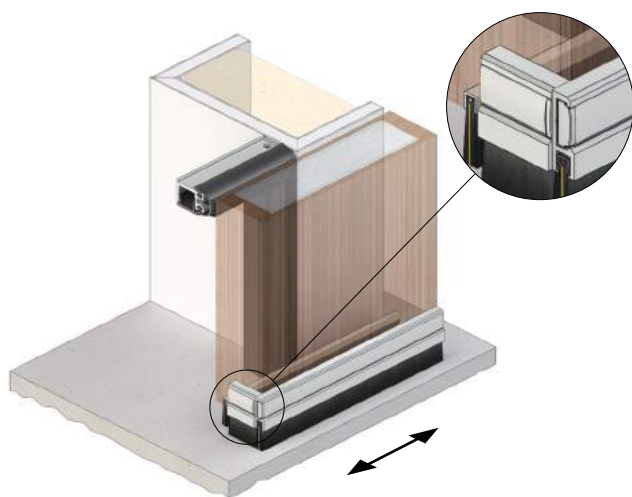
RP84Si RP51F RP52F



Refer Raven sliding door instructions for fitment

TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
063	35mm	1036.6 kg/m ³	29	31	19.3	20.2	35.9	31.0	30.6	35.0	32.8	33.3	33.4	33.9	33.5	32.4	31.2	28.8	25.4	25.8	28.5	32.5

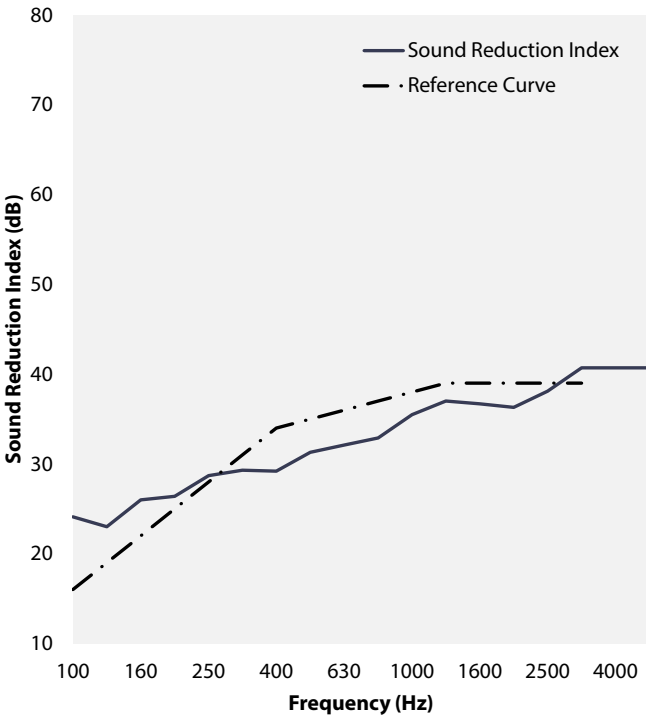
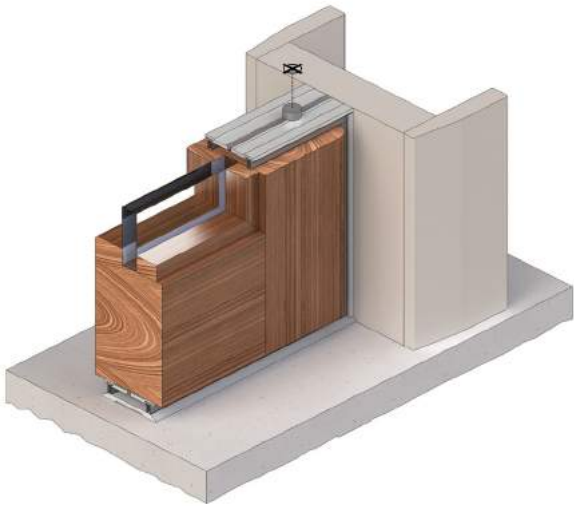
RP10Si RP51F RP52F



Refer Raven sliding door instructions for fitment

TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
No Seals	35mm	1036.6 kg/m ³	17	17	13.6	13.0	17.7	15.9	14.8	17.8	17.1	17.9	18.1	18.8	18.9	18.3	17.2	16.1	14.8	15.6	15.0	14.6
061	35mm	1036.6 kg/m ³	34	34	21.0	22.2	38.5	35.3	36.5	39.7	38.0	37.6	36.2	36.3	36.5	36.0	33.8	31.1	31.2	31.7	33.8	35.4

RP71Si RP71Si RP96



TEST	DOORCRAFT DOOR		STC	R _w	FREQUENCY (Hz) vs. SOUND REDUCTION INDEX (dB)																	
	Thickness	Density			100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
No Seals	50mm	505.8 kg/m ³	13*	13	12.6	10.4	12.3	11.9	13.5	12.7	12.0	12.2	13.1	13.7	15.3	15.1	14.6	12.8	11.2	10.8	-	-
101	50mm	505.8 kg/m ³	35*	35	24.1	23.0	26.0	26.4	28.7	29.3	29.2	31.3	32.1	32.9	35.5	37.0	36.7	36.3	38.1	40.7	-	-

*STC estimation

In Australia, the NCC Part F5.5 deemed-to-satisfy provisions states that Class 2 buildings; typically apartments and multi-residential, and class 3 buildings; hotels and motels, have entry doors with a minimum sound insulation rating of R_w30 . The UK Building Approved Document E states a minimum R_w29 is required.

Raven acoustic seals are used in airports, hotels, offices, hospitals, homes and anywhere noise infiltration occurs through doors. Their effectiveness is best illustrated by the repeated use of Raven seals by architects, acoustic engineers, door fabricators, and project builders.

Raven, the industry leader in door sealing systems, pioneered baseline acoustic testing, utilising "off the shelf" doors and ironmongery to give specifiers proven, cost effective solutions to the growing problem of noise in living and workplace environments.

Acoustic door manufacturers increasingly incorporate Raven door sealing systems with acoustically engineered doors to achieve and maintain the highest R_w ratings up to R_w52 .

Australian National Construction Code (NCC) Part F5

Class 2 and Class 3 buildings

F5.5 Sound insulation rating of walls

(a) A wall in a Class 2 or 3 building must—

- (i) have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates *sole-occupancy units*; and
- (ii) have an R_w (airborne) not less than 50, if it separates a *sole-occupancy unit* from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and
- (iii) comply with **F5.3(b)** if it separates—
 - (A) a bathroom, *sanitary compartment*, laundry or kitchen in one *sole-occupancy unit* from a *habitable room* (other than a kitchen) in an adjoining unit; or
 - (B) a *sole-occupancy unit* from a plant room or lift shaft.

(b) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30.

Good Design Practices

Listed below are good design practices as outlined by the ABCB Sound Transmission and Insulation in Buildings 2018 handbook 3rd Edition.

- Use full perimeter acoustic seals on doors and sensitive windows.
- Allow for the adjustment and maintenance of acoustic seals on doors and windows.
- Doors may be either thick solid-core doors or proprietary systems. Most sound-rated doors require full acoustic seals around the head, jamb and threshold to limit flanking.
- Acoustic seals do not provide suitable performance if they are not properly adjusted. Seals should be selected based on their performance, simplicity of use, and they should be low maintenance and durable.
- Seals should not be removed from sound-rated doors or windows.
- Acoustic seals on all sound-rated doors should be properly adjusted and operational.

Raven seals are designed to meet the most rigorous International Standards and Building Codes. Raven seals, in the main, have been tested to Australian, New Zealand, British, ISO and EN standards. In many cases they are the same or similar to US standards and Chinese building code requirements. Specifiers should determine the suitability of products shown or contact Raven's Technical Department for assistance.

AUS/NZ NCC Sound Transmission & Insulation; Sect. F Parts F5.0, F5.5 (b), FV5.2 (c), Sound Insulation for building elements; Spec. F5.2 (e) (ii) (B). AS 1191 (ISO 140-3) Measurements of airborne sound transmission loss etc., AS 1276 (ISO 717-1) Rating of sound insulation in buildings etc., AS/NZS 2107 Acoustics - Recommended design sound levels and reverberation times for building interiors, AS 2253 Field measurement of the reduction in airborne sound transmission in buildings. ISO 717-1 Rating of sound insulation in buildings. NZ BC Compliance Doc. G (airborne and impact sound). ASTM E 336, ASTM E 413. BS EN 10140 Series Standards - Laboratory measurement of sound insulation.	UK/EU Building Regulations Approved Document E, Building Bulletin 93 - Special Acoustic Conditions for Schools, BS EN ISO 140-3 Acoustics - Measurement of sound insulation in buildings and of building elements (previous BS 2750), BS 5821 (ISO 717-1) Rating the sound insulation in buildings and building elements, BS EN 10140 Series Standards - Laboratory measurement of sound insulation.
USA IBC International Building Code, ASTM E 90 Standard method for laboratory measurement of airborne sound transmission loss of door panels and door systems, ASTM E 413 Classification for rating sound insulation, ASTM E 336 Standard test for measurement of airborne sound insulation in buildings, ASTM E 1408-91 Standard Test Method for Laboratory Measurement of the Sound Transmission Loss of Door Panels and Door Systems.	CHINA GBJ 118 - 88 《民用建築隔音設計規範》 GBJ 87 - 85 《工業企業噪音控制設計規範》 GB 8485 《建築外窗空氣隔聲性能分級及其檢測方法》 JGJ 57 - 2000 《劇場建築設計規範》 JGJ 58 - 88 《電影院建築設計規範》 JGJ 67 - 89 《辦公建築設計規範》 JGJ 62 - 90 《旅館建築設計規範》 GB 50096 - 99 《住宅 設計規範》 GB 50073 - 2001 《潔淨廠房設計規範》

Application Icons

Icons have been used to help identify appropriate seals for various applications to make product selection easier. All seals are designed to meet most standards and in most cases, perform more than one function.

Noise – Acoustic Ambient (cold) Smoke Temperatures up to 70°C. Medium Temperature Smoke Temperatures of 200°C for 30 minutes (smoke doors). Weather Energy, Draughts & Dust	Light Insects and Vermin Antimicrobial Raven gaskets and cover strips contain antimicrobial compounds. Independently tested against E. Coli, Strep and MRSA.
---	--

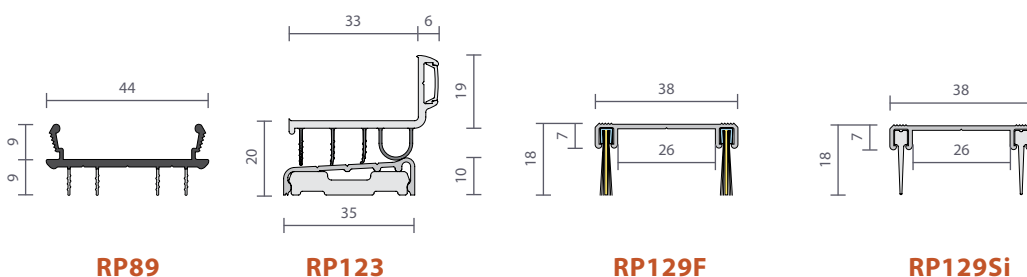
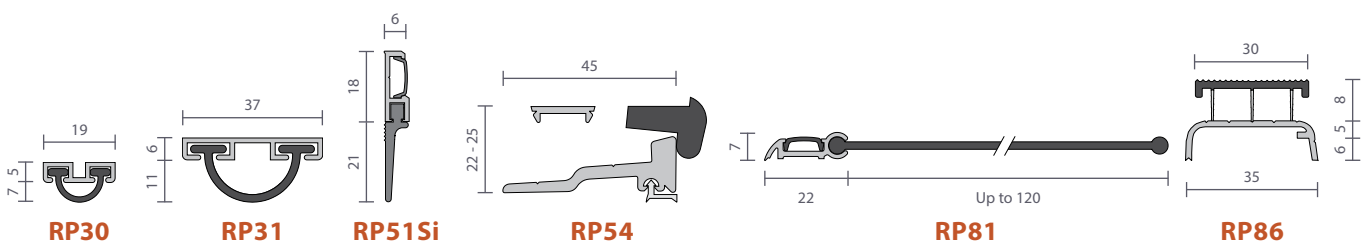
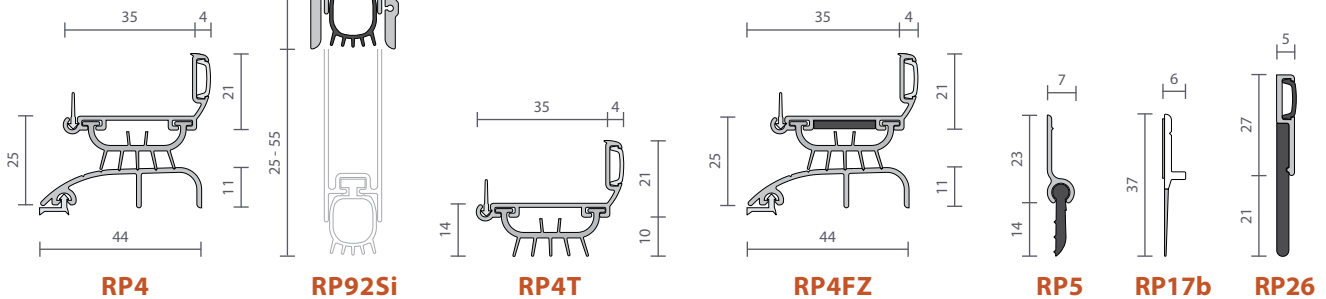
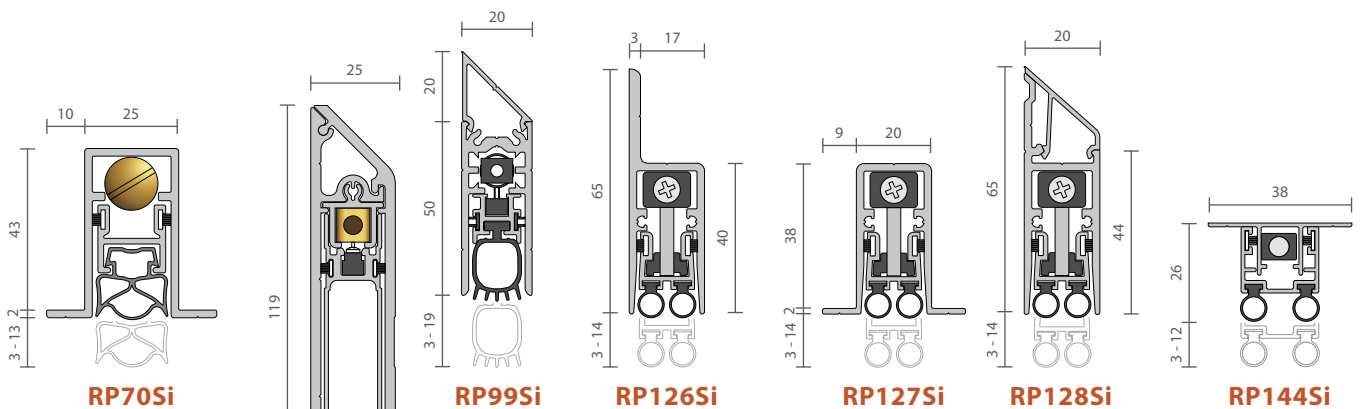
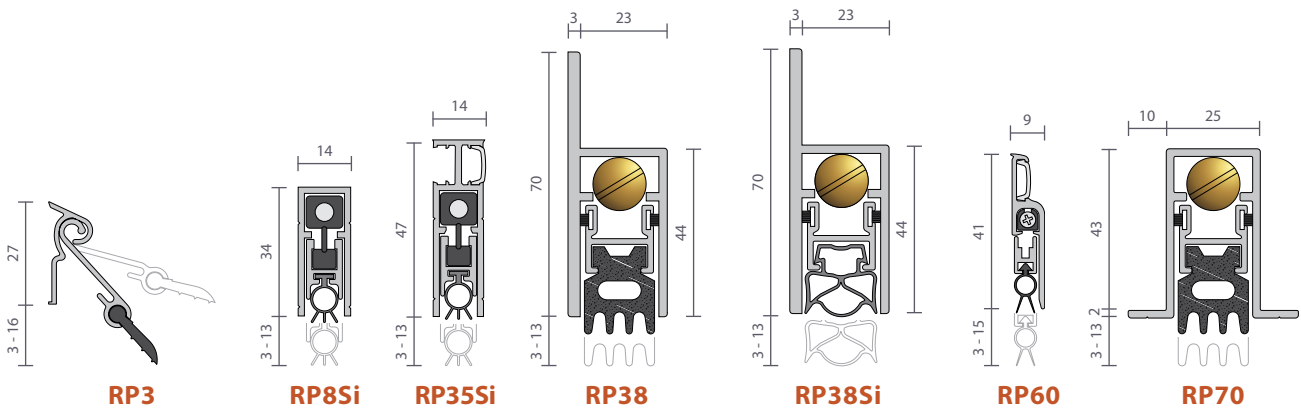
Quick Product Reference



For detailed product specifications, colour finishes and ordering information go to www.raven.com.au.

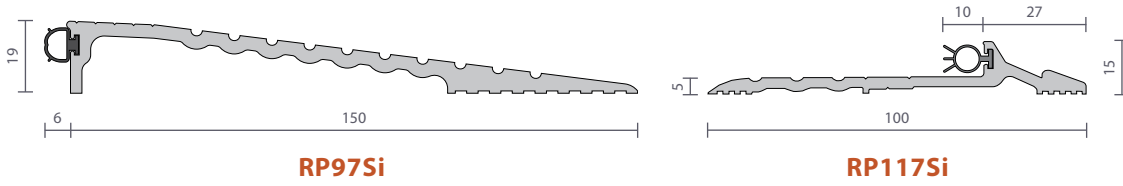
Door Bottom Seals

General

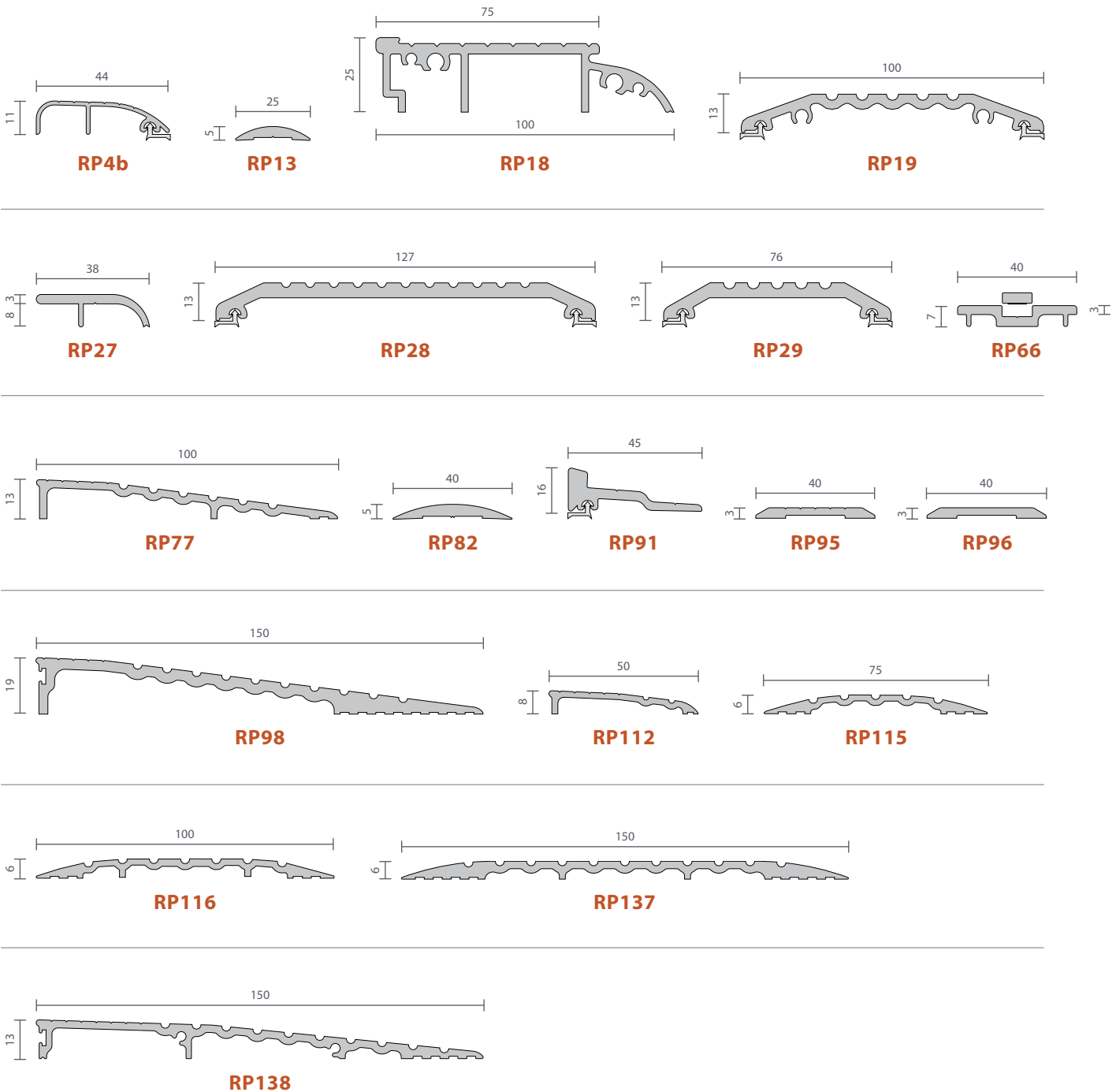


For detailed product specifications, colour finishes and ordering information go to www.raven.com.au.

Threshold Plate Seals



Threshold Plates

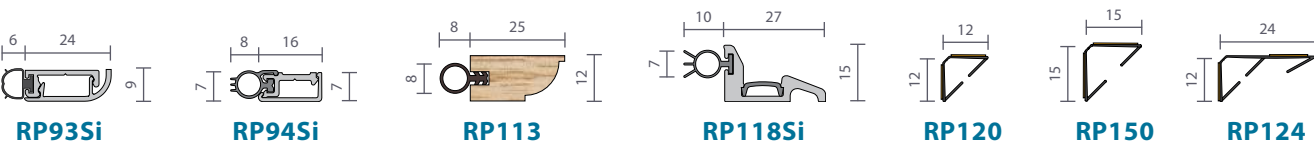
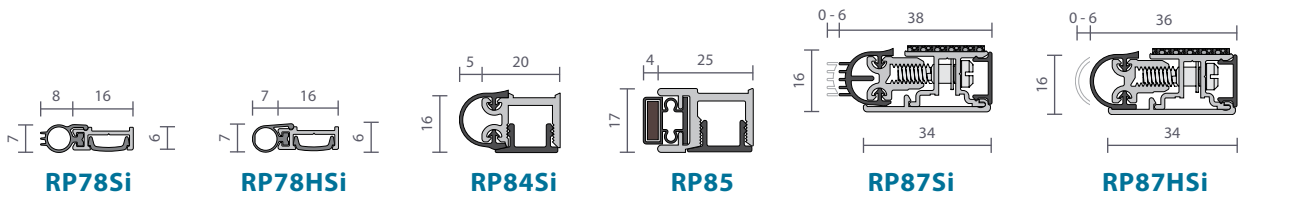
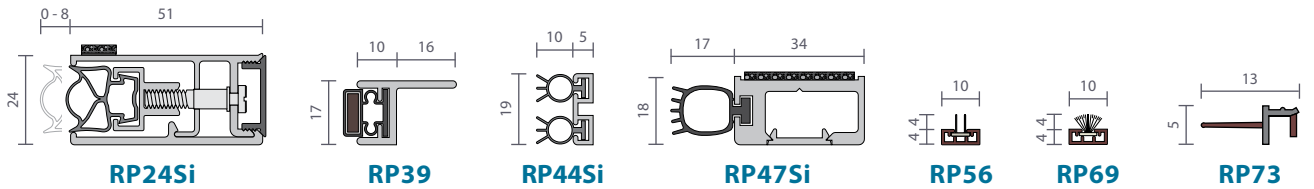
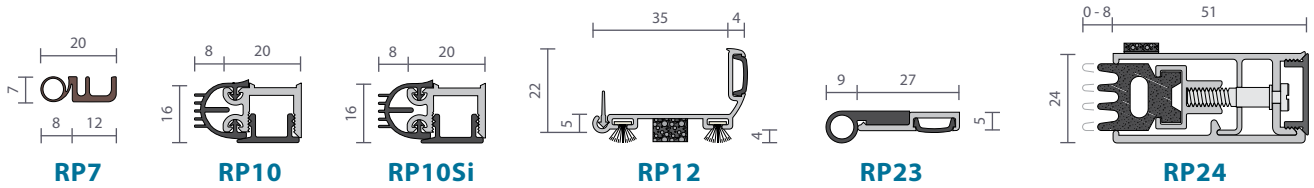


Quick Product Reference

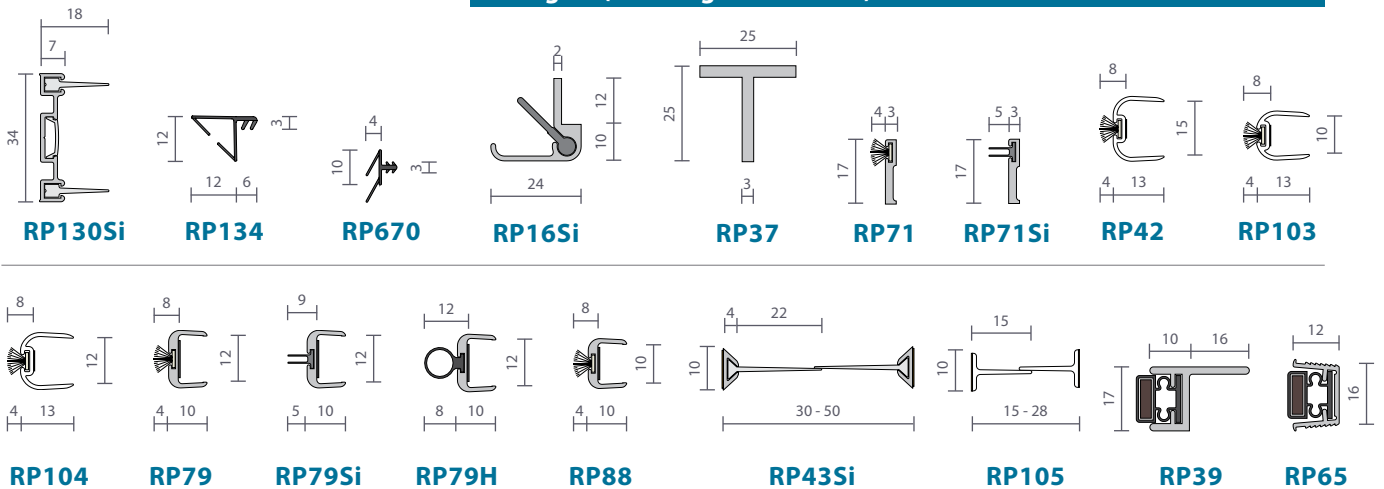


For detailed product specifications, colour finishes and ordering information go to www.raven.com.au.

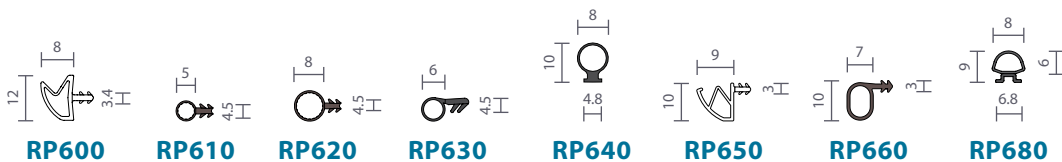
Door Frame / Perimeter Seals



Astragals (Meeting Stiles Seals)



Weather Stripping - Silicon RP500 Series and TPE RP600 Series



Quick Product Reference

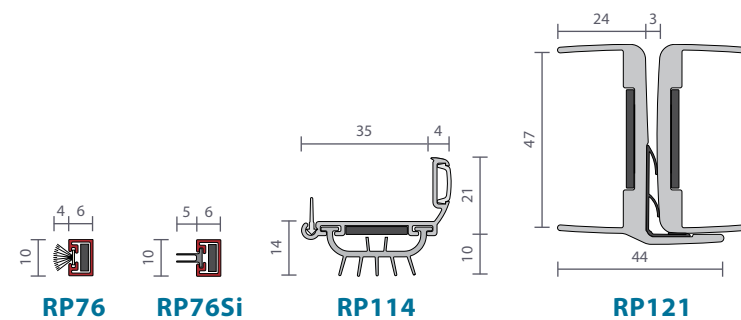
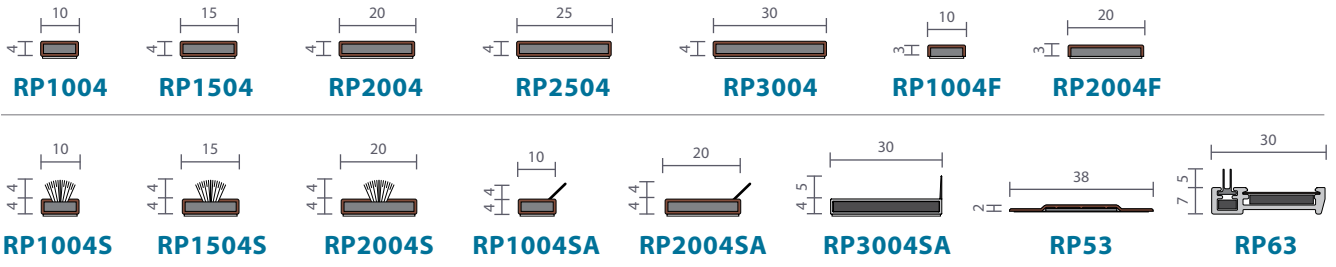


For detailed product specifications, colour finishes and ordering information go to www.raven.com.au.

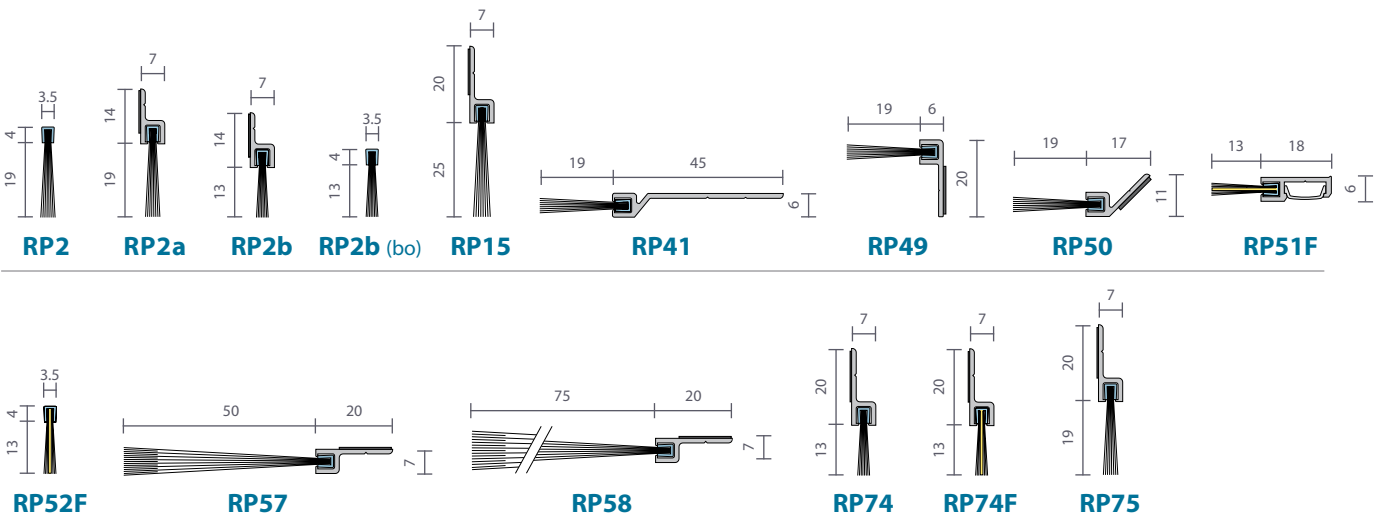
Self-adhesive Seals



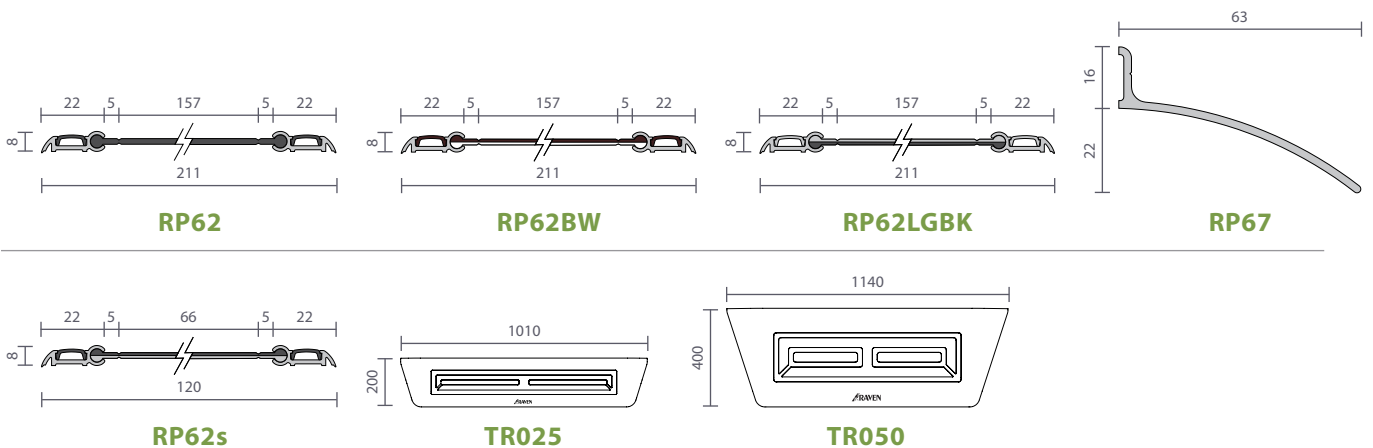
Intumescent Fire Seals



Brush Strip Seals



Complementary Products



PRODUCT	PAGE
RP8Si	12, 13, 14, 15, 20, 25, 33, 36, 42, 43, 44, 45, 49, 54, 56
RP10	12, 15, 16, 27, 28
RP10Si	12, 15, 16, 22, 27, 28, 32, 34, 42, 44, 45, 58
RP16Si	22, 23, 24, 26, 27, 48, 54
RP24	17, 23
RP24Si	23, 35, 42, 43, 46
RP35Si	13
RP38	17, 18, 19, 20, 23, 34, 48
RP38Si	23, 35, 42
RP44Si	24
RP47Si	18, 52
RP51F	58
RP52F	58
RP70	17, 18, 21, 32, 37, 47, 48, 56, 57
RP71	23, 25, 47, 48, 49, 57
RP71Si	22, 24, 25, 26, 27, 54, 55, 59
RP78Si	13, 20, 32, 33, 36, 37, 45, 47, 48, 49, 57
RP84Si	24, 25, 26, 58
RP85	28, 46
RP87HSi	26
RP87Si	43
RP93Si	19, 55
RP94Si	14, 56
RP96	59
RP97Si	55
RP99Si	12, 14, 15, 16, 19, 27, 28, 33, 34
RP117Si	37, 54
RP118Si	54
RP120	15, 19, 33, 34, 36, 37, 47, 48, 49, 57
RP124	33, 38, 42, 43, 44, 45, 46
RP126Si	22, 24, 26, 35, 43, 45, 46
RP127Si	16, 24, 26, 32, 35, 36, 38, 42, 43, 44, 45, 46
RP128Si	22, 25, 34, 43, 44
RP393Si	47, 48, 49, 57
RP520	33, 34
RP530	20, 21, 32, 37, 48, 56
RP2004F	49



Guarantee

Raven seals are guaranteed for 2 years against defects in materials and workmanship, provided seals are fitted in accordance with manufacturer's specifications. Defective goods identified by Raven will be replaced. However, NO claim for work done thereon or damage incurred will be allowed.

Self-adhesive backed; closed cell and open cell foam tape seals are not guaranteed. Defective goods identified by Raven may be replaced. Experience has shown that even for one and the same objective, the exact requirements may vary due to site and environmental conditions that are outside Raven Products control; this includes the surfaces to which self-adhesive products are being installed.

All technical data and recommendations, although based upon our research and believed to be reliable, is given in good faith but without warranty. It is understood that users will independently determine the suitability of all products shown or specified herein for their purposes and as such Raven Products Pty. Ltd. accepts no liability.

Copyright ©

The tradename Raven and its registered trademarks remain the property of Raven Products Pty. Ltd., Australia. Product numbers, drawings and technical details are Raven copyright. Reproduction is by written permission only and must accompany the Raven brand and copyright acknowledgement.

Raven Products Pty. Ltd. reserves the right to alter, delete or make obsolete any product shown in this catalogue or website, without prior notice.

Disclaimer

In this catalogue there are some references to various national and international standards and building codes. No Raven copyright is implied or intended. References are a guide only. It is understood that users of this catalogue will obtain the most current building code and or standards for their intended purposes at all times.



Raven Products Pty. Ltd.

Head Office and Factory

18 - 22 Aldershot Road
Lonsdale, South Australia 5160
Australia

PO Box 67
Lonsdale, South Australia 5160
Australia

T +61 8 8384 5455

Sales Enquiries

T 1800 888 123 Free call anywhere in Australia
E sales@raven.com.au

Technical Advice

E tech.advice@raven.com.au

www.raven.com.au