SoundShield

KNAUF
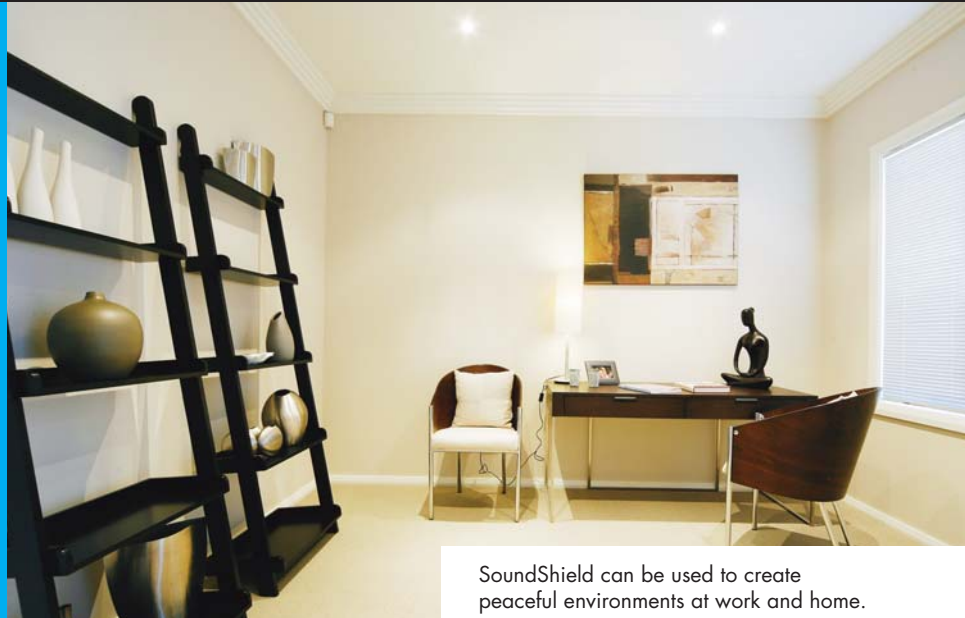
TECH DATA

Benefits

> Superior acoustic performance

> Reduces transfer of sound between rooms to improve indoor environment quality

> Easy and economical to install compared with brick work and masonry

SoundShield can be used to create peaceful environments at work and home.

SoundShield is a plasterboard with a high density core for systems where superior sound insulation performance is required. SoundShield has recycled yellow liner paper.

Product Information

SHEET SIZE	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	WEIGHT* (kg/m²)
	10	1200 1350	3000, 4800 3000, 4800	8.4
	13	1200	3000	12.3
FIRE HAZARD PROPERTIES	Group 1 material according to the requirements of BCA Section C1.10 Fire Hazard Properties Average Specific Extinction Area < 250 m²/kg as required by BCA Specification C1.10a, Clause 3(c)			
COMBUSTIBILITY	Classified as non-combustible according to BCA Section C1.12			
VOLATILE ORGANIC COMPOUNDS	Less than 0.5mg/m³ TVOC			

* Weights indicated are nominal

Installation

SoundShield is usually installed using the 'Fastener and Stud Adhesive Method'. It may also be installed using the 'Fastener Only Method' or 'Masonry Adhesive Method'.

All services and penetrations must be installed in a way that maintains the acoustic integrity of the system. Use sealant on all gaps and around the perimeter to maintain acoustic integrity.

Refer to the latest Knauf Technical Manual on the website for complete installation instructions.

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Application

SoundShield is used in a wide range of residential and commercial applications such as home theatres, media rooms and confidential meeting rooms where reducing sound transmission from one room to another is the primary concern. SoundShield can be installed on ceilings and wall partitions to provide quieter living and working conditions.

SoundShield can also be used in specialist commercial systems such as soil and waste pipe acoustic systems and non-fire rated ducts, or to line external walls where reducing external noise is required.

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Performance

Sound

Systems with SoundShield can achieve very high levels of sound insulating performance. The sound insulating effectiveness of walls depends on their Rw or Rw + Ctr values. Table 1 shows the effects of various walls on sound insulation performance.

Refer to the latest Knauf Technical Manual on the website for systems with acoustic ratings.

Effect of various walls on sound insulation performance

Table 1.

Rw	Rw + Ctr	EFFECT OF DIFFERENT VALUES OF Rw AND Rw + Ctr ON SOUND INSULATION PERFORMANCE
25	22	Normal speech can be heard easily
30	25	Loud speech can be heard easily
35	28	Loud speech can be heard but not understood
42	35	Loud speech heard as murmur
45	38	Must strain to hear loud speech
48	40	Loud speech can be barely heard
53	44	Loud speech can not be heard
63	55	Music heard faintly, bass notes 'thump'
70	60	Loud music still heard very faintly

Rw and Rw + Ctr Definitions:

Rw - Weighted Sound Reduction Index

Rw describes the airborne sound insulating performance of a building element. It is a laboratory measured value. It can apply to walls, ceiling/floors, ceiling/roofs, doors or windows. The higher the number, the greater the sound insulating performance of the building element.

Rw + Ctr - Rw plus Spectrum Adaptation Term

Rw + Ctr is equal to Rw with the addition of a low frequency sound correction, Ctr. The use of Rw + Ctr has been adopted due to the increase in low frequency sound sources such as surround sound systems, traffic and aircraft noise, drums and bass guitars.

Two walls can have the same Rw rating but have different resistance to low frequency sound, thus a different Rw + Ctr.

SoundShield is manufactured in Australia in accordance with quality systems certified as complying with AS/NZS ISO 9001:2008 and meets the requirements of AS/NZS 2588, *Gypsum Plasterboard*.

Quality ISO 9001
SAI GLOBAL

Warranty

Knauf's products are guaranteed by a 10 Year Warranty. Visit **knaufplasterboard.com.au** for details.

Technical Advice

For technical advice, please call Knauf technical services on **1300 724 505.**

For the latest technical information on this and other Knauf products visit, **www.knaufplasterboard.com.au**