

SoundShield

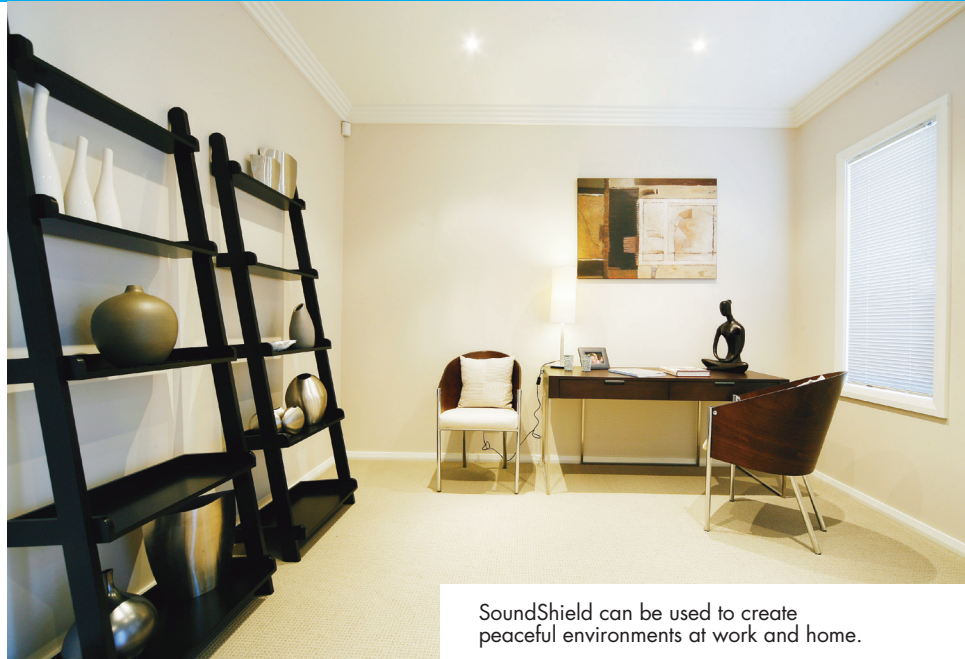
Performance Plasterboard



PRODUCT DATA SHEET

Key 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
- > Certified for use in Green Star projects



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/m ²)
			3000	3600	6000	
	10*	1350		•	•	8.4
	13	1200	•			12.3
FIRE HAZARD PROPERTIES	Group 1 with an Average Specific Extinction Area < 250 m ² /kg determined in accordance with AS 5637.1 as required by NCC C1.10, Clause 4.					
COMBUSTIBILITY	Classified as non-combustible according to BCA Section C1.9					
VOLATILE ORGANIC COMPOUNDS	Less than 0.5mg/m ³ TVOC					

* Weights indicated are nominal. Minimum order quantities and lead times may apply.

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.

SoundShield can be used within systems that require certified plasterboard to achieve 100% points in the relevant categories for Green Star projects.



SoundShield

Performance Plasterboard



PRODUCT DATA SHEET

Performance



Sound

Systems with SoundShield can achieve very high levels of sound insulating performance. The sound insulating effectiveness of walls depends on their R_w or $R_w + C_{tr}$ values. Table 1 shows the effects of various sound insulation ratings. 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.

R_w	$R_w + C_{tr}$	EFFECT OF DIFFERENT VALUES OF R_w AND $R_w + C_{tr}$ 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

R_w and $R_w + C_{tr}$ Definitions:

R_w - Weighted Sound Reduction Index

R_w 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.

For example, an increase in the R_w of a wall by 10 points will reduce the perceived loudness of sound passing through the wall by about half.

$R_w + C_{tr}$ - R_w plus Spectrum Adaptation Term

$R_w + C_{tr}$ is equal to R_w with the addition of a low frequency sound correction, C_{tr} . The use of $R_w + C_{tr}$ 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 R_w rating but have different resistance to low frequency sound, thus a different $R_w + C_{tr}$.

Sustainable

Green Star compliance documents are available at www.knaufplasterboard.com.au/sustainability-documents

SoundShield can be used within systems that require certified plasterboard to achieve 100% points in the relevant categories for Green Star projects.



Warranty

Knauf's products are guaranteed by a 10 Year Warranty. For details visit

knaufplasterboard.com.au

Technical Advice

AU 1300 724 505