

TECHNICAL DATA - PLASTERBOARD

Soundstop® 10mm

Soundstop* **10mm** plasterboard is specifically developed for use in acoustic systems to control the amount of noise transfer between rooms in residential construction. Soundstop* 10mm plasterboard is used in high-performance USG Boral acoustic wall and ceiling systems not requiring fire-rating properties such as QuietZone*, CinemaZone* and other proprietary systems where reducing sound transfer from one room to another is required.

It is also used in fire rated systems, such as Partiwall*, to satisfy the relevant acoustic provisions of the Building Code of Australia (BCA).

ADVANTAGES

- High acoustic performance
- Reduces sound transfer
- Internal wall and ceiling systems application

PERFORMANCE DETAILS

ACOUSTIC

Soundstop*, when used in an acoustic system can provide required levels of sound insulation to achieve specified acoustic ratings.

AIRBORNE NOISE

WEIGHTED SOUND REDUCTION INDEX (Rw)

Noise sources such as voices, television sets/home theatre and musical instruments, generate sound in the air in one room and this sound passes through the partition and into the room on the other side. This is known as airborne noise.





BOARD SPECIFICATION

Feature	Description
Thickness	10mm
Edge Profiles	Recessed edge
Sheet Size (width x length)	1200 x 3600mm, 1200 x 4800mm, 1350 x 4800mm [Please refer to Size & Availability Chart for more sizes] Product availability: Certain products and sizes may only be available on order or in pack lots.
Paper Colour	Yellow
Mass	9.2 kg/m ² nominal
Fire Hazard Properties	Group 1 – in accordance with BCA Specification C1.10a Fire Hazard Properties – Floors, Walls and Ceilings.
Combustibility	Non Combustible material as defined in BCA Deem-to-Satisfy Provisions C1.12
VOC	Less than 0.5mg/m ³ TVOC
GECA	N/A
Manufacture	Manufactured in Australia to the requirements of AS/NZS 2588:1998 Gypsum plasterboard and in accordance with AS/NZS ISO 9001:2008 – Quality management systems – Requirements



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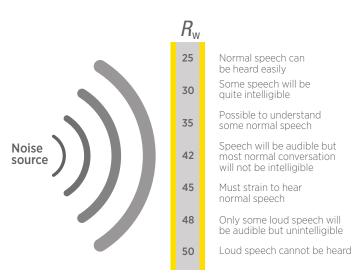
The Building Code of Australia (BCA) has adopted the Weighted Sound Reduction Index (R_w) as a measure of sound isolating properties of building elements. A partition with a high R_w rating isolates sound better than a partition with a low R_w rating. If two partitions are compared subjectively and one has an R_w which is 10 rating points higher, then the noise passing through the better wall will be about half the loudness of the lesser wall. The R_w ratings are obtained from tests carried out in certified laboratories, under controlled conditions.

SPECTRUM ADAPTATION TERM (C+r)

The R_w alone is not a good indicator of how well the partition isolates low frequency (bass) sounds. To improve the low frequency performance of wall and ceiling partitions, the BCA requires specific walls to meet an $R_w + C_{tr}$ criterion. When the C_{tr} is combined with the R_w , the result is a single number index which provides a more reliable indicator of the ability of the partition to isolate noise containing low frequency components. The higher the $R_w + C_{tr}$ value for a wall or ceiling partition the better the sound insulation performance, particularly in the low frequencies.

Determination of $R_{\rm w}$ is defined in AS/NZS ISO 717.1 Acoustics – Rating of sound insulation in buildings and of building elements Part 1: Airborne sound insulation.

There are two types of noise transfer through partitions, airborne transfer, and structure borne transfer. Both may need to be considered in order to achieve the desired result.



Typical $R_{\rm W}$ Ratings

INSTALLATION

Refer to USG Boral website www.usgboral.com/plasterboard or call TecASSIST® on 1800 811 222.

SUSTAINABILITY

USG Boral products are manufactured from a combination of natural gypsum, and paper liner made from 100% reclaimed and recycled paper waste. Plasterboard waste can be reclaimed and recycled into new plasterboard.

Lightweight plasterboard construction offers the benefits of low embodied energy, non-toxic materials, enhanced indoor air quality, and ease of thermal and acoustic upgrading.

MANAGEMENT (MAN)

WASTE MANAGEMENT

Waste collection services are available to divert acceptable plasterboard waste away from land fill for recycling or re-processing for other uses. For information on waste collection services available, please contact your local USG Boral office.

INDOOR ENVIRONMENT QUALITY (IEQ) INTERNAL NOISE LEVELS

Soundstop*, when used in an acoustic system, can assist in controlling noise levels and occupant comfort through the attenuation of noise transmissions.

INDOOR ENVIRONMENT QUALITY (IEQ) VOLATILE ORGANIC COMPOUNDS (VOC) AND FORMALDEHYDE MINIMISATION

USG Boral products, compounds and adhesives have been independently tested to confirm compliance with Green Star specification limits for VOCs and are formaldehyde free.

REFERENCES

Refer **www.usgboral.com/soundstop** for Material Safety Data Sheet, Volatile Organic Compound Emission details and Fire Test Report information.

SALES ENQUIRIES 1800 003 377

TecASSIST® 1800 811 222

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This technical information is intended to provide general information on plasterboard products and should not be a substitute for professional building advice. We recommend you use a qualified person to install USG Boral plasterboard. Illustrations in this guide are only representative of USG Boral plasterboard products and the appearance and effects that may be achieved by their use. To ensure the information you are using is current, USG Boral recommends you review the latest building information available on the USG Boral website. www.usqboral.com