

**GYPROCK®**

Everything else is just plasterboard

# Make your house a home

A building & renovating guide



# A **quality** home starts with some thoughtful planning

## Having a new home built or considering a renovation?

Building or renovating is a big decision and you often put your trust in your builder to provide you with quality products and workmanship. In fact, most people spend a lot of time thinking about furnishing, fixtures and colours but no time on the wall and ceiling lining changes that can make a big difference.

This guide is designed to help you through the planning stage for three of the main characteristics of a home that research shows are very important, but sometimes overlooked:



### **Controlling noise**

Reducing unwanted noise and creating quiet zones for improved acoustic comfort



### **Improving durability**

Planning for durable walls in high impact areas to minimise accidental damage



### **Managing moisture and mould**

Taking action to reduce the risk of moisture damage and mould to safeguard your family's health

By being involved in the planning and selection of your wall and ceiling linings, you can have a lasting impact on the comfort and performance of every room in your home. Planning stage is the best time to get it right!

**WORK WITH YOUR BUILDER TO MAKE YOUR NEW HOME OR RENOVATION**

**THE BEST IT CAN BE FOR YOU AND YOUR FAMILY!**



## Controlling noise



High on the list of desirable new home attributes is peace and quiet. Your home should be a place where you can escape unwanted noise and enjoy some tranquillity. Achieve a much higher level of acoustic comfort in your home by selecting a plasterboard lining that has increased sound absorptive properties for ultimate tranquillity in your home.

## Improving durability



Your walls are designed to provide you with many years of durability, with the occasional paint job the only maintenance you should need to worry about. There are high traffic areas in every home that are more prone to knocks and bumps, particularly in homes with a growing family. Selecting the right plasterboard lining for these areas will give you an improved level of protection against knocks and scrapes from furniture, school bags and other day-to-day accidents.



## Managing moisture and mould



With improved building practices and insulation requirements for new homes and renovations, there is a lot less air 'leakage' than homes built years ago. While this is great for thermal comfort and energy efficiency, it can cause issues with moisture build-up that can promote the growth of mould. Carefully consider your selection in these spaces and avoid becoming one of the 35% of Australian households that have experienced mould in their homes.



# Controlling noise

No one wants a noisy house and there are plenty of things that can contribute to unwanted noise in new homes and renovations:

- Proximity between dwellings
- Road and air traffic
- Open plan living
- Less soft furnishings and more hard surface finishes
- Powerful home entertainment systems



## ALL ABOUT ACOUSTICS

The first step in taking control of noise is understanding the basics of acoustics and the causes for different types of noise issues. There are many Gyprock solutions available to combat the noise issues that may affect your home.



## Sound Transmission

Sound waves can transfer from one side of a structure through to the other side. Unwanted noise can enter through external walls, ceilings and the roof, then transfer through internal walls between rooms. This can be airborne noise such as traffic, voices, music and machine noise, or impact noise such as footsteps on upper level floors and cupboard doors.

Loud, low frequency noise sources such as truck engines and sound systems have a higher degree of sound transfer through solid structures.

Sound transmission control is achieved with a combination of the physical mass of the wall and ceiling lining, with bulk insulation in cavities to absorb sound and limit noise transfer. Standard building construction typically features Gyprock® Plus plasterboard on walls and Gyprock Supaceil™ plasterboard on ceilings, which provide good sound separation for most rooms. For higher levels of sound control, Gyprock has developed a number of systems that include Gyprock Soundchek™ plasterboard teamed with Bradford SoundScreen™ insulation.

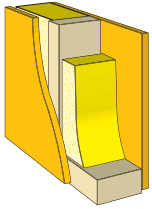
Soundchek is an acoustic rated, higher density plasterboard than the standard inclusion and can be used on walls and ceilings. SoundScreen is a dense, glasswool bulk insulation that fits neatly between wall and ceiling framing members. This combination dampens sound transfer, resulting in quieter spaces.

## Beware of flanking sound

Flanking sound is the transfer of noise indirectly around structures such as the perimeter junctions of walls, floors and ceilings. Ceiling vents, downlights and wall penetrations such as power points can also allow noise to 'leak' through acoustically treated walls. Ask your builder to take the appropriate steps to minimise flanking sound.

## Improving Wall Performance

The Gyprock Red Book™ is a technical guide that your builder may use when selecting certain systems for your new home. It includes a number of wall and roof/ceiling systems for use in rooms where sound transmission is a concern. Selected systems have been included below and you may wish to communicate these with your builder.



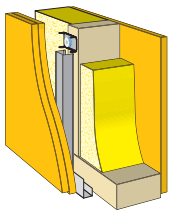
### Acoustic Wall Upgrade 1

This modest upgrade replaces standard plasterboard with one layer of Gyprock Soundchek on either side of the wall, with Bradford SoundScreen insulation in the cavity.

When installed, this system ensures that normal conversations are inaudible between rooms, and other sounds are considerably reduced.

For external walls, this upgrade includes one layer of Soundchek on the inside with SoundScreen in the cavity.

Talk to your builder about system CSR 2055.



### Acoustic Wall Upgrade 2

For even greater acoustic performance, this acoustic upgrade option uses the addition of furring channel and resilient mounts to the structure, creating a reduced path for low frequency sound waves to travel through. This is because these components reduce the contact between the wall lining and frame. This upgrade features an extra layer of Soundchek on one side of the walls, and SoundScreen insulation in the cavity.

This system dramatically reduces both airborne and impact noise between rooms, and even loud sounds are barely audible.

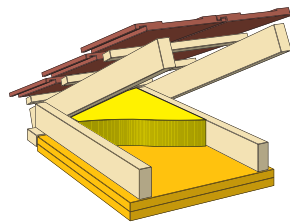
For external walls, this upgrade includes two layers of Soundchek directly fixed to the wall frame with SoundScreen in the cavity.

Talk to your builder about system CSR 2115.

## Improving Ceiling Performance

### Acoustic Roof/Ceiling Upgrade 1

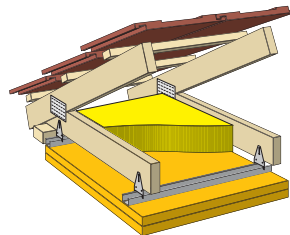
Used when the ceiling backs onto the roof (a single storey home, or the upper level of a multi-storey home), this upgrade includes two layers of Soundchek plasterboard with SoundScreen insulation in the ceiling cavity.



Talk to your builder about system CSR 6509.

### Acoustic Roof/Ceiling Upgrade 2

Utilising the same linings and insulation combination detailed in Upgrade 1, the addition of furring channel helps prevent direct noise transfer between the lining and the frame. This approach is particularly effective where aircraft noise is a problem.

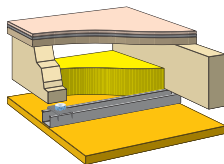


Talk to your builder about system CSR 6535.

### Acoustic Floor/Ceiling Upgrade 1

Used when the ceiling lining backs onto another level of the home this system is ideal for reducing noise transfer between floors in a home. Achieved with the addition of furring channel and resilient mount steel components, this upgrade features one layer of Soundchek plasterboard with SoundScreen insulation in the ceiling cavity.

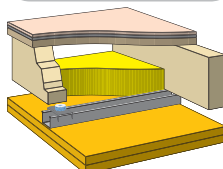
Talk to your builder about system CSR 6204.



### Acoustic Floor/Ceiling Upgrade 2

Utilising the same fasteners, steel, linings and insulation combination detailed in Upgrade 1, the addition of an extra layer of Soundchek plasterboard even more dramatically reduces airborne and impact noise between storeys.

Talk to your builder about system CSR 6206.



## NOISE CONTROL: HINTS AND TIPS

Solid core doors are more effective in stopping noise transmission – particularly if acoustic seals are used.

Awning windows provide better sound insulation from outside noise than other window types – also consider choosing laminated or specialty acoustic glass.

Using hanging wall rugs or tapestries as artworks can reduce echo and reverberation in rooms with timber or tile floors.



# Improving durability

No matter how careful you are in your home, there are some areas that are at higher risk of wall damage from things such as:

- School bags
- Moving furniture
- Luggage
- Vacuum cleaner
- Door handles
- Pedestrian traffic



## ALL ABOUT WALL DAMAGE RESISTANCE

Plasterboard is the most common and cost effective wall and ceiling lining used in new homes and renovations. It's made by mixing a plaster slurry with a foaming agent to create a mix which is wrapped in a liner paper and then oven dried. This provides rigidity and surface strength in a building material that meets modern building requirements.

For areas of your home that are more likely to sustain damage, Gyprock has developed plasterboard options for increased durability through thicker liner paper and denser plasterboard cores, dramatically improving the board's resistance to damage.

## Types of damage

**Hard body impact** – this occurs when a solid object comes into contact with a wall with direct force. In residential settings, moving furniture and door handles are the most common examples of hard body impact damage.

**Soft body impact** – this generally refers to situations where someone falls against a wall, exerting pressure over a larger area than that of a hard body point force. Boisterous behaviour in a rumpus room or an accidental tripping in any situation can often lead to a soft body impact event.

**Surface indentation** – both hard and soft body impact events involve a high level of direct force on the wall. Surface indentation impact could be described simply as scrapes and bumps – more of an oblique or glancing force. Surface indentation damage is a risk in most situations where there is movement of people or objects in close proximity to a wall.

## Improving damage resistance

Areas of the home that are susceptible to hard and soft body impact, as well as surface indentation include living rooms, kids' bedrooms and hallways.

For these areas, consider Gyprock Superchek™, a 10mm plasterboard made with a heavy duty paper liner that increases density and board strength to improve the level of durability of your walls against knocks and scrapes or more serious damage from accidents in the home.

While Gyprock's standard plasterboard, Gyprock® Plus, provides good durability, Gyprock Superchek provides much higher levels of impact resistance for added peace of mind.

Comparative impact testing has shown that Gyprock Superchek requires double the force to impose discernable surface indentation. Its increased density improves impact and sound resistance, allowing it to also deliver better acoustics in homes.



Standard plasterboard



Gyprock Superchek™

Be sure to communicate to your builder the areas where durability is important to you. That way, you can protect high traffic areas from damage and keep your space looking great for longer.

## DURABILITY AND DAMAGE: HINTS AND TIPS

Door stops are a simple, inexpensive item that can sometimes be overlooked in new homes and renovations. Correctly installed, these will prevent a door handle from coming into contact with the wall.

Wider doorways can reduce the risk of damage when moving furniture. Narrow doorways are a removalist's nightmare and should be avoided if possible.



# Managing moisture and mould

Long-term exposure to steam and moisture build-up can drastically affect the quality of walls and ceilings in many parts of your home, not just in bathrooms and laundries.

Some areas of a home naturally generate high levels of moisture:

- Kitchen – vapour from cooking
- Bathrooms – steam from showers and baths
- Laundries – moisture from washing machines and clothes dryers

## ALL ABOUT MOISTURE AND MOULD

Apart from physical damage such as sagging ceilings, even modest levels of humidity can lead to the growth of mould that can be detrimental to the health of your family, particularly if anyone suffers from asthma or allergies.

Moisture can enter a home through gaps, condensation in the wall cavity and damp ground conditions under suspended timber floors, increasing the potential for mould.

Even occupants contribute to moisture through breathing and perspiration. All these moisture generators can contribute to higher indoor humidity and, without adequate ventilation this humidity can permeate the whole house with external atmospheric conditions, only adding to the issue.

An adult's breath and perspiration creates around

**1.25 litres**

of moisture per day

Discuss your concerns about moisture and mould with your builder, particularly if anyone in your family suffers from asthma or allergies. There are many decisions that can be made in the design phase to ensure your home is as healthy as possible.

## Improving moisture and mould resistance

Mould requires 70% to 90% humidity to thrive, which is common in Australia's coastal regions where the majority of the population lives. This level of humidity not only encourages mould, it is also conducive to the growth and development of dust mites. These common pollutants are asthma triggers that can cause the airways to become narrow and inflamed – leading to asthma symptoms. In fact, exposure to mould allergens has been found to cause asthma in people who are genetically predisposed to it.

If you or someone in your family suffers from asthma or allergies, or you simply want to improve the indoor air quality of your home, Gyprock® Sensitive is an ideal solution for your internal walls and ceilings.



Gyprock® Sensitive is a revolutionary hypoallergenic plasterboard that is the first and only residential plasterboard to be approved by the National Asthma Council Australia's Sensitive Choice® program. Designed as a superior choice for asthma and allergy sufferers, this premium plasterboard provides substantial moisture and mould resistance for your new home or renovation.

**Moisture resistant** – the core of Gyprock Sensitive contains a wax emulsion which makes it highly moisture resistant. Gyprock Sensitive far exceeds the Australian Standard for water absorption. This makes it suitable for wet areas in your home, like bathrooms and laundries.

**Mould resistant** – Gyprock Sensitive is treated with a powerful but gentle antifungal agent throughout the board's core which penetrates through the paper liner and paint coating. Repeated independent laboratory tests to the internationally recognised film fungal resistance measure ASTM G21 have been conducted on treated plasterboard samples manufactured over three years ago. This extreme test inoculates samples with a mixed fungal spore suspension. While the standard board sample developed fungal growth as expected, the treated sample showed zero growth. This proven protection provides long-term peace of mind for asthma and allergy sufferers.

**Low VOC** – Volatile Organic Compounds are common pollutants, found in a variety of building materials, furniture and decorative fabrics that can also trigger asthma. The Green Building Council of Australia (GBCA) sets strict limits for what levels of VOC emission rates are acceptable in occupied spaces. The total VOC emission rate for Gyprock Sensitive is around 90% lower than the GBCA recommended levels.



**STANDARD  
PLASTERBOARD**



**GYPROCK®  
Sensitive**

*Mould on plasterboard surfaces.  
Laboratory test results under extreme conditions.*

## MOISTURE AND MOULD: HINTS AND TIPS

Fit extraction fans to high moisture areas and expel the moist air to outside rather than the ceiling cavity.

Select air conditioning systems that introduce fresh air instead of split systems, or go for natural ventilation systems instead. The recommended rate of replacement of the air in a dwelling is at least every two hours. In most homes, around 50% of this recommended rate occurs incidentally through gaps in the building fabric so active ventilation is required to make up the difference.

Consider mechanical ventilation for areas of your home with poor airflow such as wardrobes and south facing rooms where natural ventilation is not possible.

Avoid unflued gas heaters as these emit an enormous amount of moisture into a home.



## National Asthma Council's Sensitive Choice® Program

**2.3 million Australians suffer from asthma and one in three suffers from an allergy**

Sensitive Choice® is a community service program created by the National Asthma Council Australia to identify products that are a better choice, contribute to improved air quality and help reduce allergic reactions. To help homeowners and builders identify asthma and allergy-aware products, approved products display the Sensitive Choice® symbol on their packaging. You'll find that reassuring blue butterfly on hundreds of products – from bedding to paint, cleaning agents to carpets, vacuum cleaners to building products.

# The Gyprock Range

## PLASTERBOARD

This brochure has explored how Gyprock's range of Residential Specialty Plasterboard can improve the quality of your home. Choosing internal wall and ceiling linings from this specialised range can help make your house feel like a home by improving the noise levels, durability and air quality of your living space.

### GYPROCK RESIDENTIAL SPECIALITY RANGE

#### Gyprock Soundchek™



A high density plasterboard with increased noise absorption properties to help create quiet zones in your home. Combined with Bradford SoundScreen™ insulation it is ideal for walls and ceilings in home theatres, bedrooms, ensuite bathrooms and studies.

#### Gyprock Superchek™



Gyprock Superchek's reinforced core reduces the damage caused by knocks and bumps while the heavy duty lining paper provides a more scuff-resistant surface, making this plasterboard ideal for high-traffic areas like hallways and stairs. The denser core and high recycled content also provide additional sound insulation.

#### Gyprock® Sensitive



Gyprock Sensitive is the only residential plasterboard to be approved by the National Asthma Council Australia Sensitive Choice® program. Its hypoallergenic formula contains a special additive that resists the growth of mould to keep that fresh new home feeling for longer and makes it ideal for use throughout the homes. Its moisture resistant properties also make it an ideal choice for bathrooms and laundries.

### GYPROCK RESIDENTIAL SELECT RANGE

#### Gyprock® Plus

This quality standard 10mm plasterboard provides a smooth finish on walls for all areas of the home where no specific impact, acoustic or moisture resistance is required.

#### Gyprock Supaceil™

Developed specifically for use in ceilings, Supaceil is a fibre reinforced 10mm plasterboard designed to provide a smooth, flat finish for all areas of the home where no specific fire, acoustic or moisture resistance is required.

#### Gyprock Aquachek™



Specially developed for use in wet areas, Aquachek has a moisture-resistant core, face and back. Because Aquachek is not subject to moisture movement and has extremely low water-absorption characteristics, it provides an excellent, stable substrate for ceramic tiles in bathrooms and laundries.



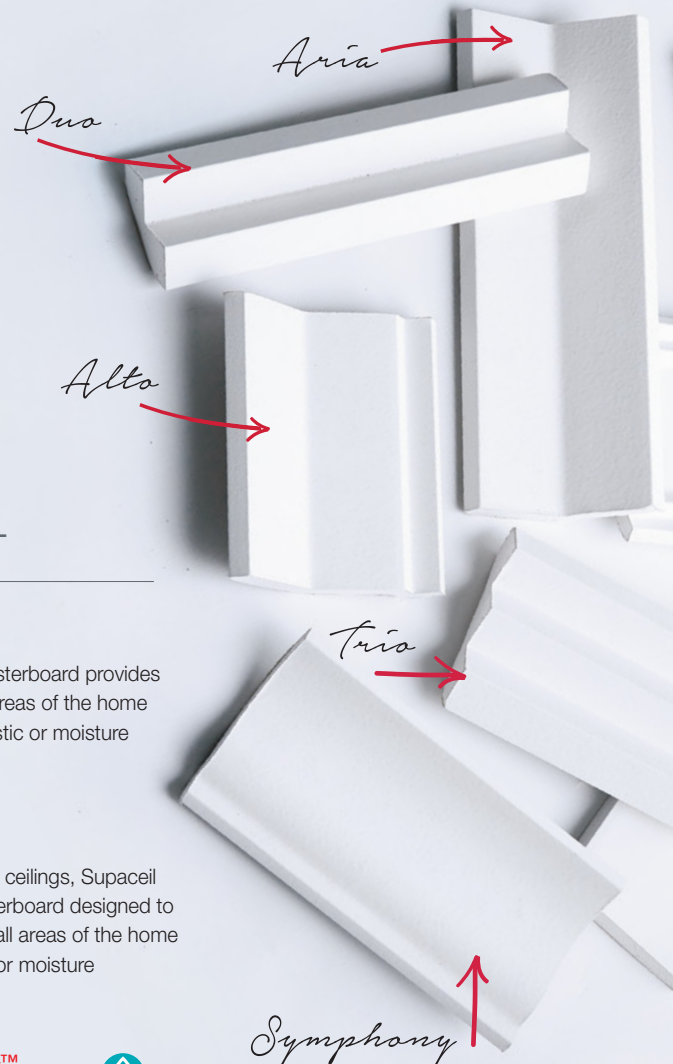
Sound insulation



Moisture resistant



Reinforced core



## EXPLORE THE FULL RANGE

Learn more about Gyprock's full range of plasterboard, including technical information and product availability.

Visit [gyprock.com.au/plasterboard](http://gyprock.com.au/plasterboard)



## CORNICE

Even the smallest details can make a difference to the aesthetic harmony of a room. Gyprock® cornices are the perfect finishing touch to help you create the style you are looking for, especially when balanced with other interior design features.

### Gyprock Alto™

Alto complements any contemporary space with a classic sensibility that's never over the top. A sassy 10mm step along the ceiling edge creates a crisp shadow for any modern home – the 90mm profile is uncomplicated but appealing, drawing the eye to its stylish format.

### Gyprock Aria™

A compact 75mm cornice, Aria delivers a style that never goes off trend. Its subtle, slimline profile with an understated centre deflection is perfect when you are looking for unobtrusive elegance, especially in bedrooms or utility rooms.

### Gyprock® Trio

Balance classic and contemporary elements with Trio, a powerhouse profile with its three-step 75mm format and strong, clean lines. It suits not just an ultra-modern space, but also blends well in a more traditional home.

### Gyprock® Duo

The simple, strong profile design of Duo features modern lines for a short, sharp statement. Duo's 50mm size is suited to modern homes and would also complement Art Deco style décor.

### Gyprock Concerto™

With a combination of smooth curves, distinctive lines and a sharp centre step, Concerto is ideal to incorporate an air of formality into a bedroom or living area. Throughout the day, the dramatic shadowing effect of this 90mm cornice shifts the mood of the room, instantly adding depth of character and interest. Concerto can be installed with the stepped edge either facing up or down to create different effects.

### Gyprock Symphony™

Music to any homeowner's ears, Symphony creates harmony with its softer curves, especially ideal for rooms with lower ceilings. Inspired by European master craftsmen, 75mm Symphony has a naturally more traditional style, combining a strong shadow line and multi-dimensional curves to create an attractive wave-like effect.

### Gyprock Tempo™

For a well-delineated design edge, Tempo is a popular choice for the latest homes. The multiple shadow lines and 90mm profile create a sense of volume and work well in open plan living areas. If you are revamping an existing room, Tempo can be used over 55mm Cove cornices, which makes renovating so much easier.

### Gyprock® Presto

This simple profile makes a big statement. Featuring a 90mm flat face that creates a 15mm step along the ceiling, Presto adds a sense of height in a contemporary home.

### Gyprock® Cove

A classic profile, Cove has long been a standard with Australian builders. Its functional profile is available in 55mm, 75mm and 90mm sizes.

## SEEING IS BELIEVING

See how your favourite Gyprock cornice looks in a variety of room styles with your choice of wall colour, ceiling height and lighting. Choose from a range of skirting board, architrave and door handle styles to complete the look.

Visit [visualiser.gyprock.com.au](http://visualiser.gyprock.com.au)



# Gyprock® HomeStyle

## BE INSPIRED

Gyprock HomeStyle is a series of inspirational magazines that provide a wealth of ideas and advice to help you plan your new home or renovation.

These are available as free downloads –  
available from [gyprock.com.au/homestyle](http://gyprock.com.au/homestyle)

In the latest edition, the importance of planning and communicating your ideas with your builder is highlighted to ensure you achieve your ideal home.

The performance of Gyprock's specialty plasterboard range is explored, identifying ways to make your home quieter, healthier and easier to maintain.

You'll also see how architectural features can be achieved with plasterboard, and the great range of Gyprock cornice profiles that can add unique style and function to each room in your home.

Enjoy ten inspirational room spreads that include up-to-the minute style ideas to help inspire your inner designer. Plus, guest editor, Block contestant and Healthy Homes TV Host, Dani Wales shares her homemaking experience and styling tips.



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For more information about Gyprock products and systems, visit [gyprock.com.au](http://gyprock.com.au) or call 1300 306 556

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CSR Building Products ABN 55 008 631 356

