

buildingconnections

Business



IN BUSINESS FOR A SUSTAINABLE FUTURE



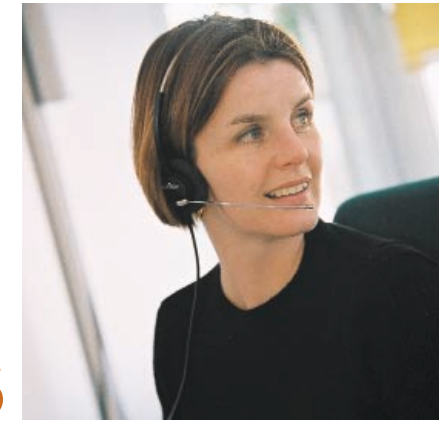
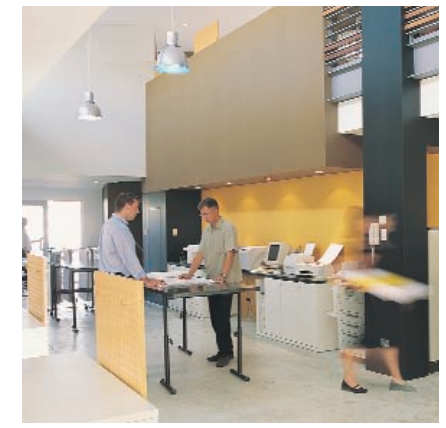


Lafarge Building Connections

Building Connections Hotline
Tel: 02 • 9311 6967
Email: buildconnect@au.lafarge.com

- 4 **Lafarge** & the business environment
- 5 our approach
our offer
Lafarge in the world
- 6-7 office overview
- 8 flexibility
- 9 accessibility
- 10-11 creativity – acoustic & aesthetic
- 12 safety
- 13 environmental sustainable development
- 14 **Lafarge Plasterboard** solution guide
- 15 glossary of products for offices

Lafarge Plasterboard
solution pack – (CD-ROM)



contents

Lafarge & the business environment

‘Out of the top managers interviewed across many industries 90% believed better office design improved productivity and 68% believed open-plan design improved the productivity and decision-making of employees.’

American Society of Interior Designers Survey, 1998

Architects, companies and employees are likely to agree that the working environment within office buildings can influence the efficiency and the quality of work performed. It is therefore important to provide the best possible work surroundings by designing each area to support a specific functional use, e.g. open-plan office areas encourage open communication between teams and departments.

The chart below highlights that employees in Australia spend more time at work than employees in other developed countries, underlining how important it is to create a working environment that influences productivity and efficient work practices.

Average hours worked annually per employed person

[Organisation for Economic Co-operation and Development, 2000]

Australia	1837
USA	1821
UK	1711
Germany	1467
Netherlands	1346

New technologies, increasingly competitive markets and operational facilities are factors which force businesses to regularly consider and adopt more flexible approaches without foregoing client service levels.



our approach

- We have interviewed architects, contractors and government representatives.
- We provide high quality construction materials.
- We understand the needs of the business sector (flexibility, acoustics, aesthetics, health and safety issues, environmental sustainable development).
- By offering the right solution for a specific project, our products can improve the lifetime of building environments while reducing maintenance costs.
- Understanding the needs of the market, improving the quality of our products, servicing our customers – these are the objectives of **Lafarge Plasterboard's** focus on providing the best solutions for your business.

our offer

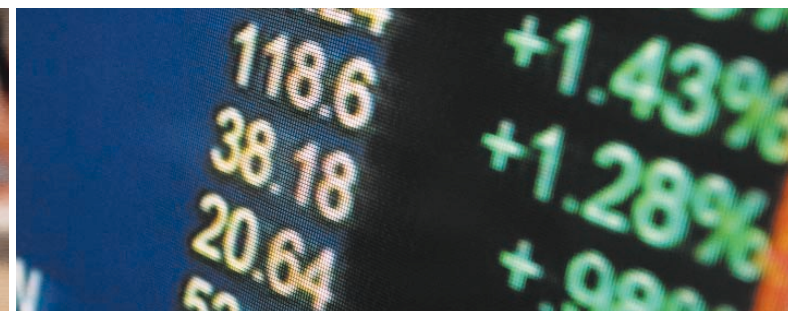
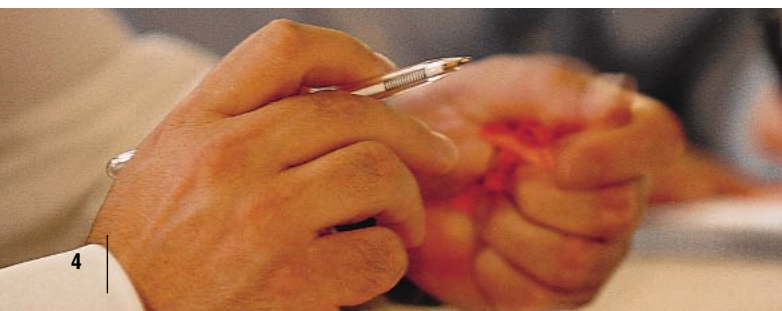
Planners, architects and builders must satisfy stakeholder needs, building regulations and budget limitations in addition to creating office environments that provide flexibility, safety and accessibility for all users.

Lafarge Plasterboard's Building Connections for Business offers a range of solutions to meet the technical requirements of office buildings and the expectations of employees, employers and building owners.

Lafarge in the world

Lafarge Plasterboard is part of the Lafarge Group. With a workforce of 77,000 people, the Lafarge Group is present in 75 countries and holds top-ranking positions in each of its divisions: no.1 in Cement and Roofing, no.2 in Aggregates and Concrete, and no.3 in Gypsum.

At our technical development research centre and through our business unit network, we constantly seek to develop new products and systems to provide a range of building solutions for modern building developments in Australia.



Office Overview

High Traffic & Public Areas

First impressions last. **Lafarge Plasterboard's** building solutions can be used to create modern designs in public areas, e.g. reception and meeting rooms. **Lafarge GIB Toughline Impact Solutions** can reduce maintenance costs in high traffic areas such as corridors and lift areas.

Discussion & Meeting Room Areas

Well-designed meeting rooms should allow employees to discuss business issues confidentially. The range of acoustic and aesthetic solutions offered by **Lafarge Plasterboard** meets acoustic requirements while helping to create efficient working environments.

Break-out Areas

Break-out areas provide 'space' from routine working areas where employees can relax and take a break or 'time out', e.g. café area. **Lafarge Plasterboard's** building solutions can isolate break-out areas by minimising noise levels; they also include a range of aesthetic solutions.



Open Space Areas

The use of sound absorbing and sound reduction materials such as **Lafarge AcustiControl** and **Lafarge Soundshield Systems** can help to increase employee productivity by controlling noise in the workplace. The architect can also use **Lafarge Aesthetic Solutions** to add a 'designer look' to open spaces.

Wet Areas

Lafarge Plasterboard's Water Resistant Solutions resist moisture and mould growth in toilet and kitchen areas.

Document & Equipment Storage Areas

Lafarge Fire Resistant Solutions provide high performance fire protection for areas that may require a Fire Resistance Level, e.g. libraries, information technology and information system areas.

flexibility

‘Physical design elements play a significant role in the ability of a company to adapt and reconfigure its workplace as required by its workplace strategy.’

*“The Effects of Building Design on Workplace Flexibility”,
Cornell University, USA, 2001*

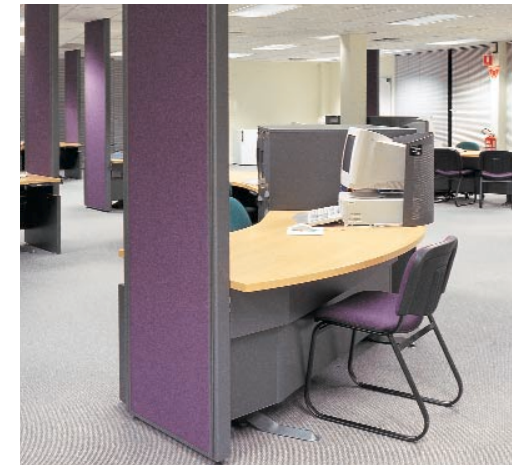


Today, companies compete in an environment that is different from the business world of ten years ago. In order to achieve better performance, industry leaders are taking an interest in office layout and design, helping to create more dynamic and efficient office workplaces.

Lafarge Solution

Materials such as plasterboard and other partition systems are easy to install and remove. This means that open-plan offices can easily be changed to incorporate break-out areas at a later date. The building costs associated with changing an office layout are also minimised.

accessibility



Specification for access to services is critical in the design stage. Services within buildings must allow for easy access for ongoing maintenance and office layout changes. By making services such as air-conditioning, telephone cables and internet connections easily accessible, maintenance repair times and any consequent disruptions to employee working time can be reduced.

‘Our research has shown that architects rank accessibility to services as one of the most important considerations in office design.’



Lafarge Solution

Lafarge Spangrid ceiling panels add flexibility to the design of modern working environments. Ceiling panels are simple to replace and provide easy access to services such as electricity cables in information technology and open-plan work areas.

Lafarge Cleancare Ceiling Panels are ideal for toilet and kitchen areas requiring easy to clean surfaces that resist mould growth.



creativity

‘Background noise levels in call centres can be very high; headset volumes are therefore adjusted even louder. Users are exposed to short but very loud levels of noise that can temporarily or permanently damage the user’s hearing. This has led to a number of compensation cases, e.g. in the UK, British Telecom paid out £93,000 to one worker.’

“Networking for Safe Workplace”,
Victorian Trades Hall Council’s Occupational Health and Safety Unit, Australia, 2003

acoustic

Since business managers often conduct confidential discussions or meetings, they need to feel reassured that the correct sound insulation systems are installed.

Lafarge Solution

Lafarge AcustiControl is a perforated plasterboard that combines sound absorption with a modern aesthetic finish. It is available in unique patterns that add a ‘designer look’ to a meeting room or reception area. **Lafarge AcustiControl** can be used on walls and ceilings to meet high Noise Reduction Coefficient (NRC) specifications.

Lafarge Soundshield Acoustic Solutions offer a range of systems to reduce noise or sound transmission from plumbing services and modern appliances.

Armstrong Acoustic Ceiling Systems provide a solution to many acoustic problems encountered in the office environment. For many years specifiers have been taking advantage of the Armstrong product features in the Australian office market to absorb and decrease the level of ambient sound and distracting noise. New innovation in this area has led to the development of **Armstrong I-ceilings Sound System**. This incorporates sound panels that absorb and cover distracting noise, enhancing the workplace effectiveness of employees by increasing the level of speech privacy within the office environment.



www.armstrong-aust.com.au

aesthetic

Well-designed spaces can help to stimulate employee creativity and productivity, e.g. split level, open-plan working areas, break-out areas or even bean bag ‘think tank’ rooms.

Lafarge Solution

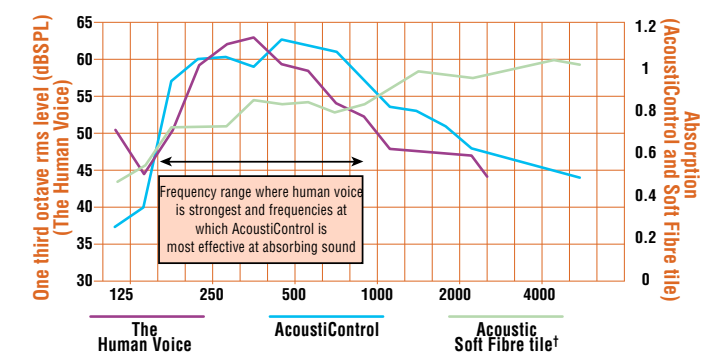
The **Lafarge MastaCove Cornice** range and **Lafarge Contour’s** curved finishes allow for a modern design to be created in reception and open-plan space areas.

Lafarge AcustiControl is easy to install and with up to 0.73 NRC it absorbs noise in both open and enclosed spaces. The material can be specified to help create an office that looks good, making a positive impact on employees and visitors.

‘Studies show that comfort and productivity are interrelated and most experts agree that almost every office can benefit from changes in layout and organisation.’

“Increase productivity by improving office design”, www.bellzinc.ca

AcustiControl Performance



Source: Lafarge Gypsum Division Technical Development Centre.

† Soft Fibre tile (1200x600x20mm) on ceiling grid with plenum of 25cm (NRC 0.85).

NRC – Is the level of sound absorbency of a material. The value is a single number calculated from the average amount of sound energy absorbed by a material over a range of frequencies between 250Hz and 2000Hz.



safety

‘95% of business executives report that workplace safety has a positive impact on a company's financial performance.’

Liberty Mutual Survey, Insurance Service Organisation, USA, 2001

fire

Office buildings designed with fire resistant systems protect employees, visitors, documents and equipment in all areas. Storage areas such as libraries, information technology or information system rooms may require Fire Resistant Levels (FRL) of no less than 60/60/60 (load-bearing) or -/60/60 (non load-bearing).



Lafarge Solution

Lafarge Plasterboard's Fire Resistant Solutions provide FRL up to 2 hours in systems designed for timber or steel framing and masonry. **Lafarge Fireshield's** specially formulated fire resistant core meets the requirements of the Building Code of Australia and provides high performance protection against damage to expensive equipment in storage areas.

Walls

FRL	Steel Stud	Timber Stud	Masonry	External Wall
-/60/60	✓	✓	✓	
-/90/90	✓	✓	✓	
-/120/120	✓	✓	✓	
-/180/180	✓			
60/60/60	✓*	✓	✓	✓
90/90/90	✓*	✓	✓	✓
120/120/120	✓*	✓	✓	✓
240/120/120			✓	

**For more information on load-bearing steel stud walls, contact Lafarge Building Connections Hotline.*

Ceilings

FRL	Suspended Steel	Timber
30/30/30	✓	✓
60/60/60	✓	✓
90/90/90	✓	✓
120/120/120	✓	✓

water

Wet areas such as toilets and kitchens require materials that reduce the potential damages caused by high humidity environments and excess moisture. Water-resistant plasterboard products are easy to install and repair compared to other internal lining materials.

Lafarge Solution

Lafarge Plasterboard's Water Resistant Solutions include water-resistant plasterboard and fibre cement. The materials can be used as a substrate for tiles, creating a smooth finish in toilet and kitchen areas. **Lafarge Watershield** resists moisture and provides low maintenance costs over the lifetime of the office.



environmental sustainable development

‘Commercial office buildings are responsible for an estimated 27% of the total greenhouse gas emissions in the world today.’

“Australian Commercial Building Sector Greenhouse Gas Emissions 1990-2010”, The Australian Greenhouse Office, 1999

Architects and business managers are aware of the importance of choosing materials and systems that reduce the amount of energy consumed, e.g. energy-saving air-conditioning and lighting systems.



Lafarge Solution

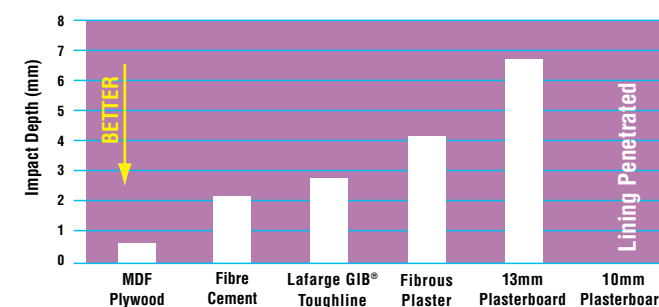
By using energy efficient manufacturing processes, **Lafarge Plasterboard** helps to improve efficiencies within the product life-cycle process. Plasterboard is a 100% recyclable material which when used in insulated systems can help to maintain internal climate control.

Lafarge GIB Toughline Impact Resistant Solutions have been designed for high traffic areas such as reception and corridors. The durability of Lafarge GIB Toughline creates cost saving efficiencies during the lifetime of the office by minimising maintenance costs caused by everyday wear and tear.

As part of **Lafarge Plasterboard's** efforts to assist architects and builders to incorporate environmental sustainable development principles, we offer a waste collection service for Office Development projects (project dependent) where **Lafarge Plasterboard's** office solutions have been specified.

Dents – Large Ball-bearing Impact (500g)

**Based on products tested by Building Research Association of New Zealand (BRANZ)*



‘In addition to positive impacts on workplace sustainability and productivity and quality of work life, environmentally sensitive design may have other benefits to the organisation including enhanced relationships with stakeholders and process innovation associated with the quest for resource efficiency.’

Dr. Heerwagen, senior scientist at the Pacific Northwest National Laboratory

KEY ISSUES	SOLUTIONS
High Traffic & Public Areas	
<ul style="list-style-type: none"> • Aesthetic • Impact Resistance/Low Maintenance • Sound Absorption 	<ul style="list-style-type: none"> • Lafarge Contour • Lafarge Decorative Cornice • Lafarge GIB Toughline • Lafarge AcoustiControl
Open Space Areas	
<ul style="list-style-type: none"> • Noise Control • Sound Absorption • Flexibility/Accessibility • Low Maintenance • Safety 	<ul style="list-style-type: none"> • Lafarge Soundshield • Lafarge AcoustiControl • Armstrong Acoustic Ceilings • Lafarge Spangrid • Lafarge GIB Toughline • Lafarge Fireshield • Lafarge Multishield • Lafarge Securitishield
Discussion & Meeting Room Areas	
<ul style="list-style-type: none"> • Noise Control • Sound Absorption • Aesthetic 	<ul style="list-style-type: none"> • Lafarge Soundshield • Lafarge AcoustiControl • Armstrong Acoustic Ceilings • Lafarge Contour • Lafarge Decorative Cornice
Break-out Areas	
<ul style="list-style-type: none"> • Aesthetic • Noise Control • Sound Absorption 	<ul style="list-style-type: none"> • Lafarge Contour • Lafarge Decorative Cornice • Lafarge Soundshield • Lafarge AcoustiControl • Armstrong Acoustic Ceilings
Wet Areas	
<ul style="list-style-type: none"> • Water Resistant • Noise Control • Safety 	<ul style="list-style-type: none"> • Lafarge Watershield • Lafarge Fibre Cement • Lafarge Multishield • Lafarge Soundshield • Lafarge Cleancare Ceiling Panel
Document & Equipment Storage Areas	
<ul style="list-style-type: none"> • Security/Fire Resistant • Impact Resistance/Durability • Flexibility • Noise Control 	<ul style="list-style-type: none"> • Lafarge Securitishield • Lafarge Fireshield • Lafarge Multishield • Lafarge GIB Toughline • Lafarge Spangrid • Lafarge Soundshield

Glossary of Products for Offices

Lafarge AcoustiControl

An acoustic and decorative solution, Lafarge AcoustiControl is a unique patterned perforated plasterboard designed for systems requiring both superior acoustic and aesthetic qualities. It is easy to install and has a Noise Reduction Coefficient (NRC) of up to 0.73.

Lafarge Cleancare Ceiling Panels

A ceiling panel finished with a vinyl laminate and coated with an antibacterial solution that resists mould growth. Lafarge Cleancare is designed for areas requiring higher levels of hygiene control and easy to clean surfaces.

Lafarge Contour

Lafarge Contour is the simple way to form curved and contoured walls and ceilings without wetting the plasterboard. Its long, recessed edges make it possible to tape, fill and finish just like standard plasterboard. Lafarge Contour's strong gypsum core and paper liner allows freedom and flexibility of design. It can be fixed to timber, steel or masonry so your designs are only limited by your imagination.

Lafarge Decorative Cornices

The Lafarge MastaCove cornice range creates a clean and elegant finish for ceilings and walls in any room, e.g. entrance areas. A choice of profiles for the simple to the more innovative interior designs is available from the MastaCove Classic range or the MastaCove Decorative Cornice range (3-step, 4-step and Wave).

Lafarge Fibre Cement

Lafarge Fibre Cement is a general-purpose fibre cement board intended for flush jointing in internal applications. It has been specially formulated and prepared to meet the arduous requirements for use in wet areas, internal lining, as a substrate for wall tiles, and for acoustically rated internal walls. It may be used in conjunction with Lafarge Fireshield in walls requiring a Fire Resistance Level (FRL).

Lafarge Fireshield

Lafarge Fireshield is available as a 13mm or 16mm plasterboard sheet with a specially formulated fire resistant core. When used in tested systems it meets the Fire Resistance Level (FRL) requirements for walls and ceilings as required by the Building Code of Australia. Fireshield is produced in a range of lengths to suit all applications.

Lafarge GIB Toughline

Lafarge GIB Toughline Impact Resistant Solutions have been developed to meet the tough demands of high impact and high traffic areas within modern buildings, providing the added benefits of cost-effective installation, product durability and long-term lower maintenance costs.

The images used in this brochure are included as examples only. No claim is made and no reference should be drawn that Lafarge Plasterboard products were used in them.

Lafarge Plasterboard acknowledges with gratitude the contribution of reference material from:

- Woodhead International
- Amplitude Architects
- Anthony Browell
- Architectus Sydney
- Christophe Grilhé
- Hames Sharley Architects
- Gino Valle & Daniel Fanzutti
- Jean-Marie Monthiers
- ML Design
- Overman & Zuideveld
- PDT Architects
- Peddle Thorp Melbourne
- Robert Frith
- Woods Bagot

Lafarge Multishield

Lafarge Multishield combines the benefits of Fireshield and Watershield, making it suitable for use in wet areas where a Fire Resistance Level (FRL) is specified.

Lafarge Securitishield System

An acoustic and fire resistant security solution, Lafarge Securitishield Partition System has been designed for applications requiring greater security and protection from intruders. It has a Fire Resistance Level (FRL) up to -/120/120, an acoustic rating of 57Rw and 48Rw + Ctr, and an efficient installation method.

Lafarge Soundshield

Lafarge Soundshield is a 10mm plasterboard sheet with a specially formulated high density core providing enhanced acoustic qualities and an improved natural resistance to fire. Used in acoustic systems for wall and floor/ceiling systems, Lafarge Soundshield is recommended for creating superior levels of acoustic comfort.

Lafarge Span 600

Lafarge Span 600 is a 10mm ceiling sheet that is reinforced to span ceiling joists up to 600mm without sagging. It can be fixed to timber or metal and is also suitable to install over existing ceilings.

Lafarge Spangrid

Lafarge Spangrid is available as a 10mm or a 13mm ceiling panel. It is made with a gypsum core in a variety of finishes and is easy to install.

Lafarge Watershield

Lafarge Watershield has a specially formulated water-resistant core wrapped in liner board which has been treated for use in wet areas. It is specially treated to resist moisture and mould growth. Watershield conforms to ASTM C630.

Armstrong Acoustic Ceiling Systems

Armstrong Acoustic Ceiling Systems provide solutions through combined product versatility and performance. Innovative visuals, multiple sizes and edge details, plus options in acoustic performance has established this range as a preferred choice in acoustic ceilings for the office market.



PRODUCT ENQUIRIES

For further information on these products and systems
contact your regional
Technical Sales Manager on **1800 810 018**

WEBSITE

www.lafargeplasterboard.com.au

MANUFACTURING FACILITIES

31 Military Road, Matraville, NSW 2036

Tel: 02 - 9311 6900

91-99 Ajax Road, Altona, VIC 3018

Tel: 03 - 9315 9311

REGISTERED OFFICE

Lafarge Plasterboard Pty Ltd

ABN 61 003 621 010

31 Military Road, Matraville, NSW 2036

**Lafarge Plasterboard is part of the Gypsum Division of
the Lafarge Group - the largest building materials
company in the world.**

**For more information on Lafarge visit
www.lafarge.com**

