

Partners achieving healthy results



Design solutions for healthcare facilities

Large project or small, new or retrofit, Bradford Insulation and Gyprock plasterboard provide thermal, acoustic, fire, structural integrity and hygiene solutions to exceed legislative requirements as well as the special functional and comfort needs of healthcare and aged care facilities.



Both of these iconic brands have been market leaders in the Australian construction industry for more than half a century and are part of CSR, one of Australia's most respected building materials companies.

Superior product quality, combined with expert industry knowledge, backed by CSR's continued focus on the science of building provides architects, builders and facility managers with the resources they need to specify and build state-of-the-art healthcare facilities.



CASE STUDY:

Royal Adelaide Hospital

CSR Brands Gyprock® plasterboard and Bradford™ Insulation were specified to meet the internal lining requirements of the new Royal Adelaide Hospital (nRAH), billed as one of the single biggest infrastructure projects undertaken in South Australia's history.

The nRAH will be Australia's most advanced hospital incorporating innovations from hospitals around the world and providing world-class care for the people of the state. In early 2011 the state Government awarded the contract to the SA Health Partnership (SAHP) consortium, which includes Leighton Contractors, Hansen Yuncken and Spotless. Construction commenced in 2011 and with the structure and façade completed over 2013 and 2014, during 2015 its internal fit out and commissioning will be completed.

The Gyprock and Bradford brands, which are synonymous with excellence in walls, ceilings and insulation were able to offer practical and innovative design solutions for this state-of-the-art facility, meeting the high performance standards specified by SA Health and enabling energy efficient and increased comfort and safety solutions to be designed into the building. With the added complexity of the facility being nominated as 'Critical Infrastructure' and being built in a seismic zone, the combined technical resources of CSR's DesignLINK™ team, which included the Research and Development division, were required to provide fully supported wall and ceiling solutions that would meet the Deemed-to-Satisfy Provisions of the National Construction Code (NCC).

CSR Gyprock's high performance EC08™ Complete was selected for the wall and ceiling linings throughout the nRAH. EC08 Complete is a premium, multi-function plasterboard, engineered to meet the highest standards across a broad range of performance requirements. As Australia's first environmental plasterboard with mould resistance, it is ideal for specialised construction

projects such as Health and Aged Care where mould, moisture and impact resistance is imperative. The low VOC board is manufactured to Australian Standard AS2588 and is capable of exceeding the extraordinary demands attributed to such a high performance facility. With numerous economically sustainable initiatives incorporated into its design, the nRAH will be one of Australia's greenest hospitals and Gyprock's EC08 Complete, which is certified by Good Environmental Choice Australia (GECA), will assist the landmark healthcare project in meeting Green Star requirements.



The contract for Internal Walls and Ceilings was issued as a design and construct contract, which required the sub-contractor, Brighton Australia Pty Ltd, to propose solutions to meet the technical specifications including mould, fire, acoustic, impact and moisture resistance, for which EC08 Complete is the highest achiever from Gyprock's range. With the technical resource of DesignLINK™, the SA Gyprock team was instrumental in offering value engineered solutions with a concise number of systems to ensure ease of installation and to maximise efficiency to the sub-contractor. EC08 Complete's broad attributes meant the contractor was able to use primarily one plasterboard type throughout the entire project, removing the potential for installation errors and offering ease of Construction Quality Assurance.

In conjunction, CSR Bradford's Acoustigard Glasswool insulation rolls and semi-rigid Glasswool Supertel boards were used to fill the interior partitions and walls internally and externally. Acoustigard is specifically made in various densities and thicknesses to suit different cavity in-fill applications and to concurrently provide acoustic and thermal performance, complying with the stringent requirements of the nRAH, which had added complexity due to the building being in a seismic zone.

The design of the external walls dictated that structural steel elements would be placed in an unconventional



size at 300mm apart. Bradford was able to supply semi-rigid glasswool Supertel boards in custom 300mm wide strips; which assisted in making the overall assembly of the walling system more cost effective and allowed a faster installation. In addition, the Supertel range was also used for HVAC linings (Heating, Ventilation and Air Conditioning), which helped to streamline the number of suppliers in this area. In early consultation with the acoustic engineer employed by Brighton Australia, an effort was made to try and streamline the range of products used to reduce complexity for the installation team, whilst still ensuring that the acoustic walling requirements, for over 50 wall types, could be achieved with the reduced range.

Aside from key wall and ceiling linings, Bradford's Safebridge purlin roofing system was also used as one of the main roof systems for the nRAH. Unlike conventional roof spacer systems, the Safebridge purlin roofing system does not raise the height of the roof and allows for a lower roof line whilst still ensuring even insulation recovery across the entire roof to achieve BCA Section J thermal insulation values.

DesignLINK™ managed the technical support to the nRAH throughout the process, offering a customised design solution for the combined CSR system and construction needs, including:

- Developing Revit Families for all the wall types and providing support and advice on managing the Revit Model
- Preparation of shop drawings for installation details and coordinating the details of Gyprock and Bradford
- Providing site visits to respond to on-going site installation matters
- Developing new installation methods and commission supporting fire assessments
- Developing specialist details for seismic construction
- Responding to ongoing technical enquiries relating to the coordination of services
- Providing written support to the main contractor as required

The nRAH is the largest Health Care project that CSR has been involved in to date. The integrated system selected through sister CSR companies Gyprock and Bradford assured optimal performance and could be confidently specified as a fast and effective solution for such a landmark health care project.






CSR Lightweight Systems Commercial Segment Manager, Barry Fitzharris, recognises the magnitude of the project and what it means for Gyprock and Bradford to be involved, "The new Royal Adelaide Hospital will be Australia's most advanced hospital. It has been a privilege to be able to have been involved from the construction phase and to witness the project taking shape from the inside also."

Bradford™

for smarter environments

Bradford is Australia's most trusted insulation company. When it comes to insulation for any residential or commercial development, Bradford is the smart choice.

For healthcare facilities, Bradford provides a wide range of environmentally-sustainable products that are used in just about every part of the building:

-  Glasswool and foil products for external walls and roofs providing thermal insulation and condensation control
-  Under slab insulation for thermal and acoustic control to car parks
-  Acoustic insulation for internal walls and ceilings to deliver better and a more comfortable interior environment
-  Specialist insulation for fire and smoke walls
-  Air conditioning ducting and pipework insulation for higher thermal efficiency






As well as delivering energy savings and reduced greenhouse gas emissions, Bradford insulation solutions help achieve exceptional indoor environment quality for patients as well as the healthcare professionals working in the facilities.

GYPROCK®

Everything else is just plasterboard

Gyprock is Australia's leading manufacturer of gypsum based products such as plasterboard and cornice, as well as compounds, adhesives, specialty plasters and associated finishing materials and accessories.

Gyprock supplies a comprehensive range of high performance products and systems ideally suited to the specialist wall and ceiling needs of healthcare facilities:

-  Mould resistance – for the ultimate in patient hygiene and infection control
-  Impact resistance – for high traffic areas such as busy corridors and waiting areas
-  Fire systems for fire compartment and fire/smoke rated areas
-  Acoustic rated systems for better sound insulation and reverberation control
-  Moisture resistance for wet areas and high humidity situations



Gyprock plasterboard and compound products are low in volatile organic compounds (VOC) and accredited by Good Environmental Choice Australia as a better choice for the environment.

Make a more Sensitive choice



Gyprock and Bradford are continually researching and developing new manufacturing processes and products to meet the changing demands of the construction market – including products that are more sensitive to the needs of asthma and allergy sufferers.

According to the National Asthma Council Australia, 2,300,000 Australians suffer from asthma and one in three people in this country has an allergy.

Sensitive Choice is a program developed to achieve 4 basic objectives:

- Educate Australians about the importance of managing their asthma
- Encourage manufacturers and suppliers to produce products and services that could benefit people with asthma and allergies

- Provide asthma and allergy sufferers with a way of identifying products and services that may benefit their health and wellbeing
- Generate sponsorship funds to enable both the Australian and the New Zealand asthma organisations to continue their work in improving asthma care

Bradford and Gyprock are the only approved insulation and plasterboard partners of the National Asthma Council Australia's Sensitive Choice® program and recommended by them as better choices for people with asthma and allergies.

If you have a project that calls for Sensitive Choice, or if you'd like more information, visit bradfordinsulation.com.au, gyprock.com.au or call us on 1300 306 556.



Everything else is just plasterboard

**For more information call 1300 850 305
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