



LIGHTWEIGHT BUILDING SOLUTIONS
Health Care

USG BORAL 
INNOVATION INSPIRED BY YOU.™

Introduction

The hospitals of tomorrow will be quite different from the hospitals of today.

As well as utilising new medical and information technologies, these hospitals will be more welcoming in comparison to the institutional feel of hospitals of the past.

Modern hospital projects are becoming increasingly influenced by sustainability considerations, with many required to achieve a Green rating.

Infection control has become even more critical due to the proliferation of drug resistant bacteria.

Whole of life costs are also assuming an even greater importance, especially on projects constructed under the Public Private Partnership (PPP) model.

These developments affect all aspects of hospital design and construction, including the choice of building materials and finishes.

Lightweight building solutions are increasingly being utilised in construction of hospital buildings due to their flexibility, environmental benefits and cost effectiveness.

This brochure provides an outline of USG Boral Lightweight Building Solutions for the following interior applications commonly found within hospitals and other health care buildings:

- Acoustics
- Fire Protection
- Impact Resistance
- Wet Areas
- Attachment Support

Also outlined are the benefits of USGBoral Lightweight Building Solutions in the areas of Hygiene and Maintenance.

Detailed information on the lightweight building solutions outlined in this brochure can be found at www.usgboral.com/en_india.html



Acoustics

Acoustic considerations play an important role in creating quiet hospital environments conducive to patients' recovery and privacy. Such considerations include sound isolation between spaces and sound absorption within spaces.

Sound Isolation between Spaces

USG Boral offers an extensive range of lightweight wall and ceiling systems providing various levels of sound isolation.

For recommended acoustic ratings and acoustic wall systems for hospital buildings go to www.usgboral.com

Sound Absorption within Spaces

Effective reverberation (echo) control requires treatment of the room surfaces with sound absorbing materials. USG Boral offers a number of lightweight lining solutions for sound absorption.

USG Boral EchoBloc plasterboard is a perforated plasterboard with excellent sound absorption properties. EchoBloc is a specially designed gypsum board with the capability of reducing echo in wide spaces by absorbing sound through round and square holes onto the glass fibre matt bonded at the back with NRC upto 0.8

USG Boral also distributes the full range of acoustic ceiling tiles for the Health Care sector.

Fire Protection

USG Boral offers a wide range of lightweight fire rated solutions that satisfy requirements for fire protection within Hospitals and other Healthcare buildings

These plasterboard based solutions include fire rated walls for compartmentation, fire rated ceilings for fire separation between the floors, column and beam protection systems and service enclosures.

Recommended systems for fire rated compartmentation walls and other fire rated applications can be found at www.usgboral.com/en_india.html



Impact Resistance

Impact damage to wall surfaces can add significant maintenance costs over the lifetime of a hospital. Hospital corridors are particularly susceptible to knocks by trolleys and general traffic and therefore require the use of impact resistant lining materials.

USGBoral ImpacBoar[®] plasterboard has been specifically designed for use in high traffic areas such as hospital corridors. High density plasterboard with continuous fibreglass mesh embedded within its core, ImpacBoard is particularly effective in resisting soft body impact.

Fiberock[®] is an alternative impact resistant lining for high traffic areas. Fiberock is a paperless gypsum board with cellulose fibre reinforcement, and is particularly effective against hard body and glancing impact.

Wet Areas

USG Boral's MoistBloc Plasterboard and associated Wet Area System provide a cost effective solution which complies with the industry requirements. For details of the USGBoral Wet Area System please contact our technical team.

Fiberock[®] is also suitable for Wet Area applications and provides additional benefits of mold and impact resistance.



Attachment Support

Hospital walls are often required to support various types of attachments such as medical equipment, shelves, cabinets, etc. It is important that such load-bearing walls perform within permissible levels of safety and serviceability.

Permissible loadings for typical steel stud walls and shelf load configurations can be found at www.usgboral.com. Walls supporting higher loadings and other attachment configurations must be designed by a structural engineer.

USGBoral metal profile is recommended to be used behind plasterboard lining for better results.



Hygiene

The emergence of new strains of drug resistant bacteria has necessitated strengthening of infection control measures in hospitals. Internal surfaces and finishes are integral to the overall management of infection control risks in Health Care buildings.

USG Boral plasterboard walls and ceilings offer a smooth and seamless surface finish which is critical to an effective hygiene.

USG Boral also distributes the Tiaga Hygiene mineral fibre ceiling tiles, which are designed to actively combat harmful fungi, mold, yeasts and bacteria.

Maintenance

Ease of repair and maintenance is an important consideration when selecting hospital wall and ceiling linings.

Hospital walls are often subject to impact from stretchers and general traffic. The use of appropriate USG Boral Plasterboards wall and ceiling solutions outlined in this publication can reduce the risk of damage and thus the maintenance costs over the lifetime of a hospital.

USG Boral's exposed grid ceilings and access panels provide an effective solution where equipment and services need to be accessible for maintenance purposes.



