James Hardie®

HardiWall™

Solid Wall System

Faster, more Efficient Solid Wall **Construction**

James Hardie, one of Australia's largest international building materials companies and a world leader in fibre cement technology and innovative building solutions, has developed an exciting new solid wall concept.

By combining the speed, flexibility and efficiency of framed construction with core filling technology, James Hardie has radically changed the way the market thinks about solid wall construction.

REDUCED CONSTRUCTION COSTS

- Is a cost effective alternative to masonry or pre-cast internal wall systems.
- Provides for considerable savings on construction time and labour.
- Minimises site waste therefore less waste removal and dumping costs.
- Reduces structural design requirements due to lighter weight wall construction.
- Allows for increased floor space due to thinner walls.

GREATER EASE OF CONSTRUCTION.

- Allows greater flexibility on site through framed construction.
- Readily accommodates architectural requirements e.g. high walls and curved walls.
- Allows easy installation of services - no chasing
- Allows trades to be easily organised and co-ordinated.

FASTER SPEED OF INSTALLATION

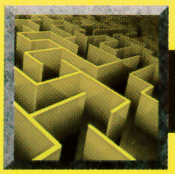
- Allows wall construction to be completed faster.
- Is up to 3 times faster to install than masonry.
- Eliminates time consuming traditional site practices.

IMPROVED SITE CLEANLINESS AND SAFETY

- Eliminates site mess on each floor - no wet trades.
- Provides for a much safer site.
- Eliminates the need to handle heavy materials.

HIGH QUALITY WALL FINISH

- Provides for a very smooth flat finish.
- Provides for a simple jointing system to give a joint free finished wall appearance.
- Eliminates the need for rendering to finish the wall surface.



STRONG, SOLID WALLS

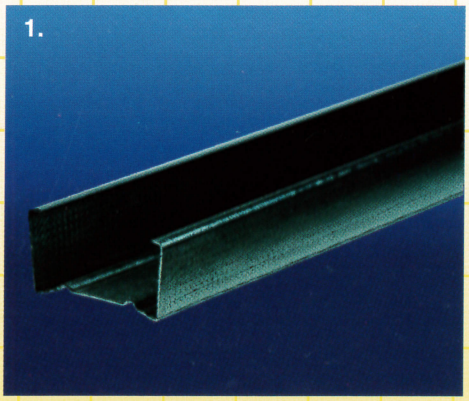
- Provides the solid feel and sense of security traditionally associated with masonry walls.
- Meets internal wall performance requirements.

The **Complete** Wall System

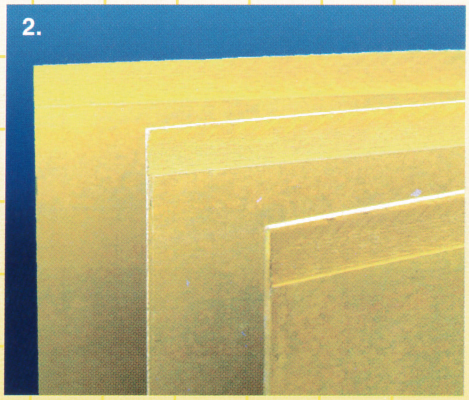
The **Hardi**Wall™ Solid Wall System is an internal non-load bearing wall comprising light gauge galvanised steel stud framing, lined with **Hardi**Wall™ fibre cement sheets and filled with a proprietary lightweight concrete core mix.

Each of the proprietary components have been designed, developed and tested as part of the system to contribute to the overall ease of installation and to improve the overall system performance.

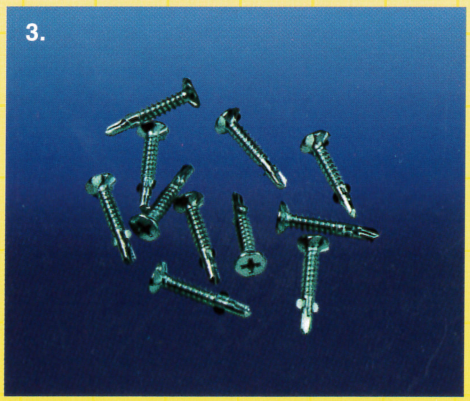
1. HardiWall™ Framing System uses light gauge galvanised steel studs, specially designed for use with James Hardie's innovative sheet fixings.



2. HardiWall™ Sheet is a purpose-designed and manufactured fibre cement sheet for application in the HardiWall™ System. It contains no asbestos, is autoclaved to provide dimensional stability and is tough and strong to resist the significant hydrostatic and impact stresses that result from core filling.

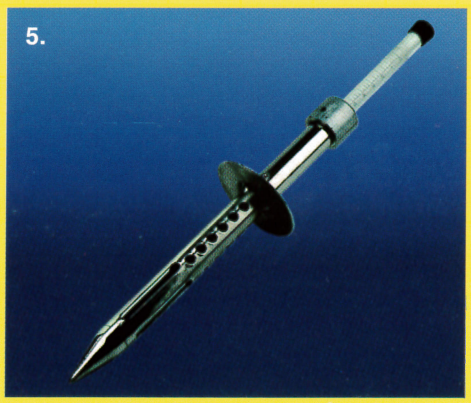


3. HardiDrive™ Fixings are designed specially for the framing system to facilitate quick and easy HardiWall™ Sheet fixing.



4. HardiAdd™ Core Mix Additive is designed to provide consistent density control for the lightweight concrete core mix. It gives consistent mix pumpability, excellent flow and levelling characteristics, and strong bond between core and sheet.

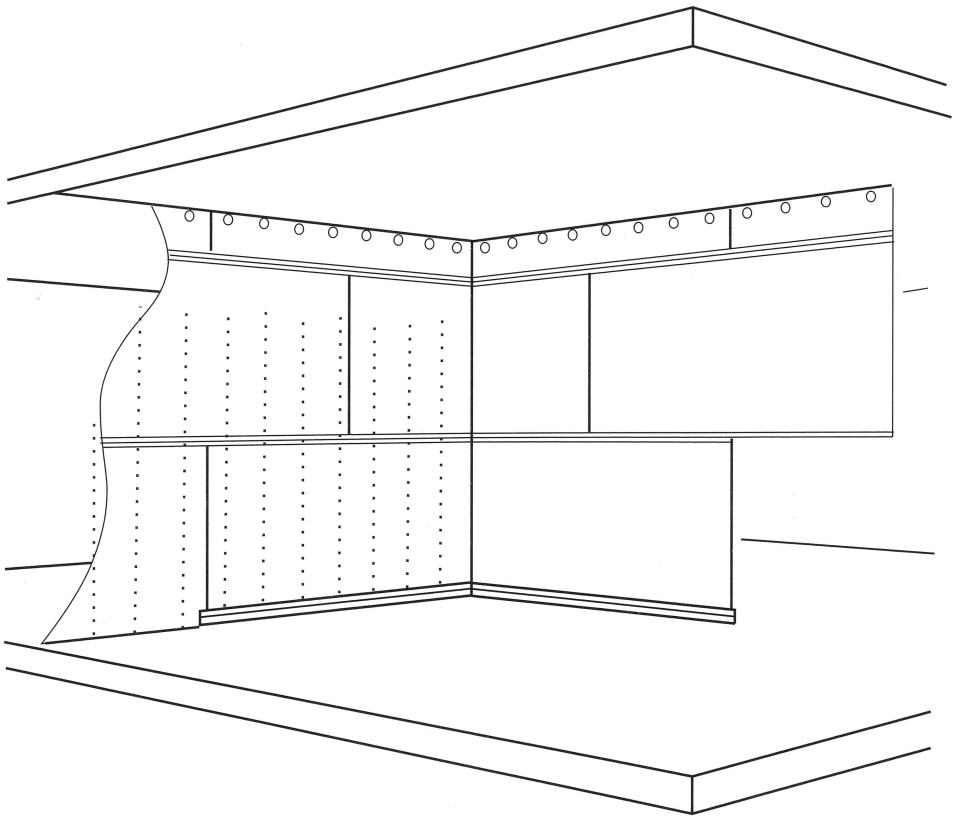
5. HardiFlow™ Meter is a specialist mechanical device to measure the workability of the lightweight concrete core mix to ensure mix consistency and quality.



6. HardiStop™ Base Coat is a ready-to-use, water-resistant, strong, jointing compound specially tailored for flush jointing the HardiWall™ Solid Wall System.

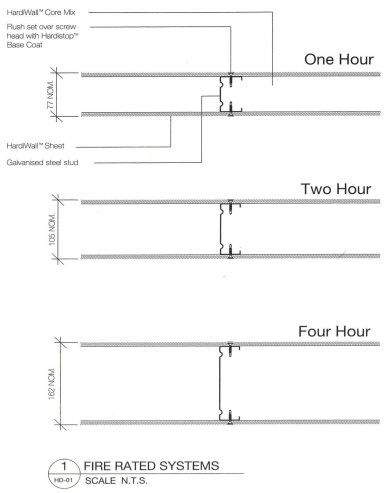
*Patent Pending

HardiWall™ Solid Wall System is



1 SHEETING LAYOUT

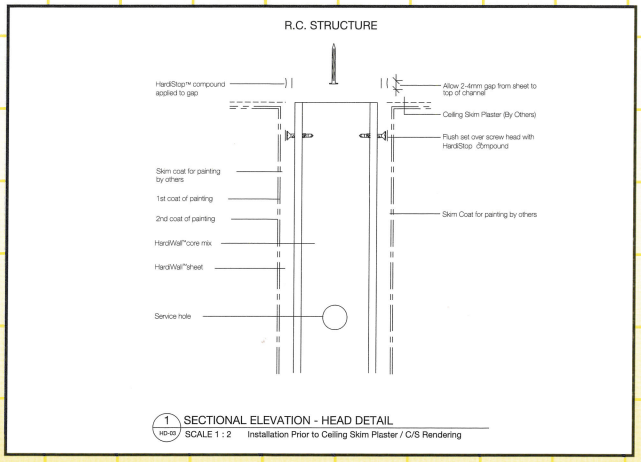
HD-27 SCALE N.T.S.

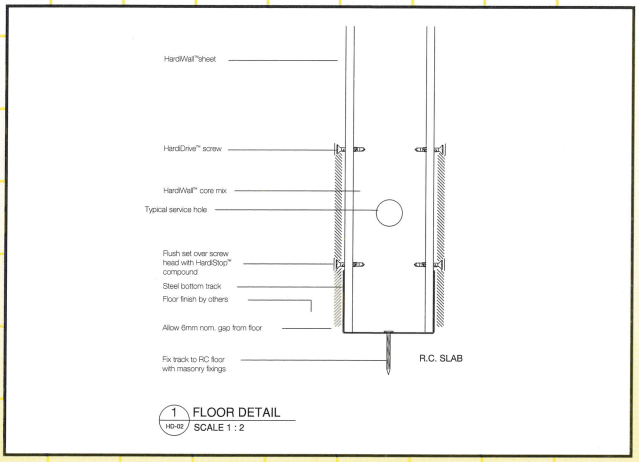


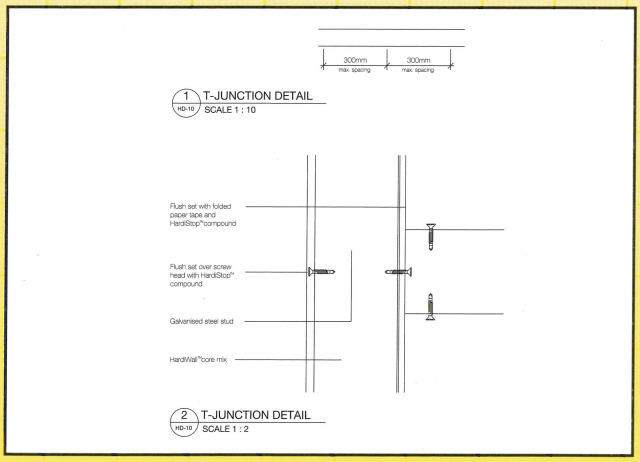
1 HD-01 FIRE RATED SYSTEMS

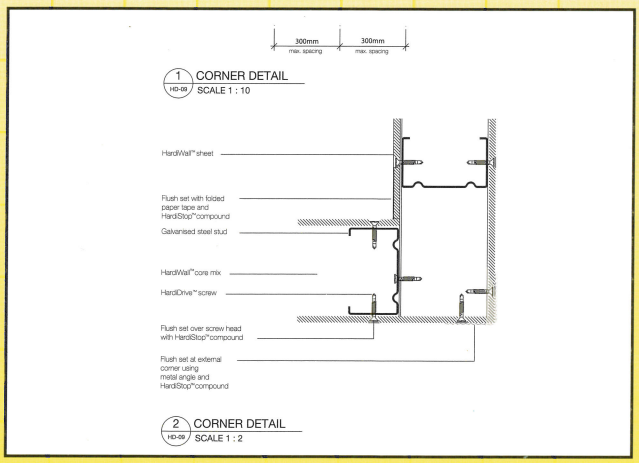
SCALE N.T.S.

Quick and Easy





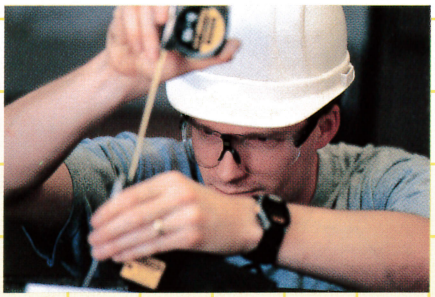


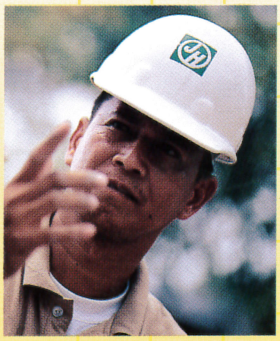


SMARTER SYSTEMS SOLUTIONS • JAMES HARDIE GUARANTEED •

All proprietary components of the James Hardie Hardiwall™ Solid Wall System have been designed and tested to ensure they perform to the highest standards for internal walls.

The **Choice** is **Simple.**





- Lightweight materials easily transported to each floor with less demand on the material hoist.
- Less labour required for installation.
- Clean uncluttered work area with minimal mess on each floor
- Services readily installed with no need for chasing
- High quality finish easy to achieve. No rendering required.
- Core mixing confined to a dedicated area.

Technical Data

77mm Nominal Thickness HardiWall™ System

PROPERTIES	RATING	TEST STANDARD	TEST AUTHORITY
Weight (Nominal)	55kg/m^2		
Fire Resistance (FRP)	1 Hour	BS 476 : Part 20 & Part 22 – 1987	CSIRO - Division of Building, Construction and Engineering
Thermal Insulation	0.221 W/(m.K)	BS 874 : Part 2 : Section 2.1 - 1986	Building Investigation and Testing Services (Redhill) Ltd
Water Resistance	No penetration or leakage of water during and after test	BS 4315 : Part 2 - 1970	MateriaLab, Hong Kong

105mm Nominal Thickness HardiWall™ System

PROPERTIES	RATING	TEST STANDARD	TEST AUTHORITY
Weight (Nominal)	70kg/m^2		
Fire Resistance (FRP)	2 Hours	BS 476 : Part 20 & Part 22 - 1987	CSIRO - Division of Building, Construction and Engineering
Thermal Insulation	0.2 W/(m.K) (est)	BS 874 : Part 2 : Section 2.1 - 1986	estimated on the basis of 77mm thick wall

163mm Nominal Thickness HardiWall™ System

PROPERTIES	RATING	TEST STANDARD	TEST AUTHORITY
Weight (Nominal)	130kg/m2		
Fire Resistance (FRP)	4 Hours	BS 476 : Part 20 & Part 22 - 1987	CSIRO - Division of Building, Construction and Engineering
Thermal Insulation	0.2 W/(m.K) (est)	BS 874 : Part 2 : Section 2.1 - 1986	estimated on the basis of the 77mm thick wall

Strength & Robustness Testing by MateriaLab* of Hong Kong (77mm Wall)

PROPERTY	OUTCOME (BS 5234 : Part 2 : 1992)
(a) Stiffness	Load 500N Maximum Deflection = 0.20mm Residual Deflection = 0.01mm
(b) Small hard body impact – surface damage	Depth of Indentation ≤ 1.5mm
(c) Small hard body impact – perforation	No damage or perforation to the panel surface
(d) Large soft body impact – damage	Permanent Deformation ≤ 1mm
(e) Large soft body impact – structural damage	No collapse or dislocation of the panel;
(f) Door slam	Res. Displacement = 0.45mm (3 slams); Res. Displacement = 0.71mm (100 slams);
(g) Crowd pressure	No collapse or damage to the panel;
(h) Lightweight anchorage – pull out	Applied Load = 100N; Pull-up shim plate was not released and no damage to the partition;
(i) Lightweight anchorage – pull down	Applied Load = 250N; Pull-up shim plate was not released and no damage to the partition;
(j) Heavyweight anchorage – wall cupboard	Applied Load = 4.0kN; Pull-up shim plate was not released and no damage to the partition;

*** MateriaLab is an accredited testing facility to HOKLAS**