AUSTRALIA'S MOST SUSTAINABLE, DURABLE AND RELIABLE BUILDING BOARD

ONE BUILDING PRODUCT MULTIPLE APPLICATIONS
WALLS, FLOORS AND CEILINGS INTERNAL AND EXTERNAL

• FIRECRUNCH X-CLAD IS 70% LESS CLADDING AND UP TO 70% LESS LABOUR
• HIGHER MARGINS FOR DEVELOPER / BUILDER
• 10 TIMES STRONGER THAN PLASTERBOARD
• 95% LOWER CARBON FOOTPRINT NO CORROSIVE MGCHLZ
• CSIRO TESTED AS/1530.4-2005 FRL 90/90/90
• NON ASBESTOS NATA AUST LAB CERTIFIED/TESTED
Magnesium oxide (MgO) is a waste by product of steel manufacturing. MgO is a recyclable mineral that is totally fire proof and when mixed with special high strength Fibre Glass composites and Magnesium sulfate compounds provides extra strength. FireCrunch MgO panels have the qualities of limber but with no combustibility or flame out at 1200°C making it the ideal choice for building in fire rated areas.

FireCrunch panels have one smooth side and one textured and grey in colour. The top and bottom edges of the board are square with the long edges being square, tapered, chamfered or Tongue & Groove.

**FireCrunch MGO is Australia's Only MGO Building Board, Fire Tested to BCA With No Corrosive (MchI2) Magnesium Chloride.**

Now also suitable for permanent or temporary formwork in columns, floors and difficult cement load, non slump support sections.

### Physical Properties (All FireCrunch is Non Combustible)

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>UNIT</th>
<th>UNIT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Kg/m³, m³ 0.95 to 1.15</td>
<td>KG/m³</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>MPa</td>
<td>Mega pascal units</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>MPa</td>
<td>Mega pascal units</td>
</tr>
<tr>
<td>Sticking resistant strength</td>
<td>KJ/m²</td>
<td>Kibijoules per square metre</td>
</tr>
<tr>
<td>Dimensional Change</td>
<td>% ( )</td>
<td>Percentage of water absorption</td>
</tr>
<tr>
<td>Span test (20mm) 450mm Centres</td>
<td>KN</td>
<td>Kilo Newton</td>
</tr>
<tr>
<td>Flexibility</td>
<td>N/mm²</td>
<td>Newton per square millimetre</td>
</tr>
<tr>
<td>Thermal conductivity</td>
<td>W/m²</td>
<td>High Aust. Insulation Rating</td>
</tr>
<tr>
<td>Asbestos</td>
<td>%</td>
<td>Absent - AUST NATA LAB Certification</td>
</tr>
<tr>
<td>Freeze Thawing Test</td>
<td></td>
<td>No change after 25 cycles of freeze Thawing</td>
</tr>
</tbody>
</table>
FireCrunch is a modern, extensively tested building board used in construction. It is made from a mixture of magnesium oxide (MgO), non-organic minerals, binders and fibre mesh composites. FireCrunch is completely free of toxins, including formaldehyde, silica, asbestos, heavy metals, and organic solvents.

It’s highly resistant to fire (CSIRO TESTED), doesn’t retain water, termite proof, strong and increases the R value in any panel application (meets all 8 Australian climatic zones). FireCrunch has extensive applications in major construction for residential and commercial properties. It is of particular interest to those renovating or repairing homes where either plasterboard gypsum style linings or other kinds of high maintenance products have been used. FireCrunch (General Application) Specifications FireCrunch is 8 to 10 times stronger than plasterboard reducing loss and breakage. It is also less expensive and lighter in weight than compressed fibre cement panels. Due to its material properties, FireCrunch does not break down or warp in water, therefore less replacement requirement after flooding... simply clean, seal and repaint! Additionally, FireCrunch is resistant to mould and mildew, blocks noise with a high acoustic value of Rw62+Ctr 52 net for the 10mm board, is impervious to termites and FireCrunch is virtually fire proof, FRL 90/90/90 and over(CSRO)**

This is why we say “FireCrunch Board - One Building Board, Multiple Applications”.

APPLICATION OVERVIEW
INTERNAL APPLICATIONS - Internal walls, ceilings, floor sub base, tile backer, counter tops, kitchen furniture, built in wardrobes. Wet area applications: bathrooms, shower recess, kitchen - suitable for any wet areas or humidity prone areas.
FireCrunch will not degrade in water or flood conditions it remains inert and can simply be dried, re plaster set and repainted. Must be sealed before or at installation.

EXTERIOR APPLICATIONS -
Weatherboarding, lining or decking (meets AS/NZS 3959 B1, Regulation - Fire Zone areas), Must be sealed. Can be painted, papered, tiled, rendered or veneered.

TOOL REQUIREMENTS OVERVIEW
No special tools are required to use FireCrunch. It can be sawn, drilled, (DO NOT NAIL THIS PRODUCT) screwed and planed, just like timber. Once in position FireCrunch will have an exceptional life span exceeding that of all homes constructed to date using conventional plasterboard, paper lined plaster, or timber lining methods.
NEW LOW CARBON FOOTPRINT 5%

**Product Range**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Board Size (mm)</th>
<th>Approx. Weight (kg)</th>
<th>Edge</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2400 x 1200</td>
<td>9</td>
<td>Square</td>
<td>SIP Skins / Custom projects</td>
</tr>
<tr>
<td>6</td>
<td>2700 x 1200</td>
<td>19</td>
<td>Square</td>
<td>Internal Walls / Ceilings**</td>
</tr>
<tr>
<td>6</td>
<td>3000 x 1200</td>
<td>21</td>
<td>Square</td>
<td>Internal Walls / Ceilings**</td>
</tr>
<tr>
<td>8</td>
<td>3000 x 1200</td>
<td>28</td>
<td>Square / Taper</td>
<td>Internal Walls / Ceilings**</td>
</tr>
<tr>
<td>8</td>
<td>2700 x 1200</td>
<td>25</td>
<td>Square / Taper</td>
<td>Internal Walls / Ceilings**</td>
</tr>
<tr>
<td>10</td>
<td>2400 x 1200</td>
<td>28</td>
<td>Square / Taper</td>
<td>Fire Rated Walls / Ceilings / Soffits</td>
</tr>
<tr>
<td>10</td>
<td>2700 x 1200</td>
<td>32</td>
<td>Square / Taper</td>
<td>Fire Rated Walls / Ceilings / Soffits</td>
</tr>
<tr>
<td>10</td>
<td>3000 x 1200</td>
<td>35</td>
<td>Square / Taper</td>
<td>Fire Rated Walls / Ceilings / Soffits</td>
</tr>
<tr>
<td>10</td>
<td>2700 x 1200</td>
<td>27</td>
<td>Chamfer</td>
<td>Fire Rated Easy Joint external walls</td>
</tr>
<tr>
<td>16</td>
<td>2700 x 600</td>
<td>22</td>
<td>T&amp;G</td>
<td>Fire Rated Walls / Floors / Fences</td>
</tr>
<tr>
<td>20</td>
<td>2700 x 600</td>
<td>32</td>
<td>Square</td>
<td>Fire Rated Walls / Floors / Fences</td>
</tr>
<tr>
<td>20</td>
<td>2700 x 900</td>
<td>48</td>
<td>Square</td>
<td>Fire Rated Walls / Floors / Fences</td>
</tr>
<tr>
<td>20</td>
<td>2700 x 600</td>
<td>32</td>
<td>T&amp;G</td>
<td>Fire Rated Floors / Decks / Fences</td>
</tr>
<tr>
<td>20</td>
<td>2700 x 900</td>
<td>48</td>
<td>T&amp;G</td>
<td>Fire Rated Floors / Decks / Fences</td>
</tr>
</tbody>
</table>

**SQUARE EDGE FIRE BOARD**
For an all-in-one board, the FireCrunch 10mm Square Edge (SE) board is perfect. Easy to use with a top class 5 finish on one side.

**CHAMFERED EDGE EXTERNAL WALL BOARD**
FireCrunch Chamfered Edge (CE) board is an innovative external wall board, with a 45° V chamfer cut down 5mm on the 10mm board long sides. Does not require any surface trowelling to join and eliminates stud joint cracking. Supplied in 1200mm nominal width.

**TAPERED (RECESSED) EDGE FIRE BOARD**
The FireCrunch Tapered Edge (TE) board is designed for easy lapping and clean joints. The board is recessed on the long sides by a depth of 1.5mm and a width of 30mm.

**TONGUE & GROOVE FLOOR BOARD**
The Tongue & Groove board has a water resistant coating, stronger and denser board grooved down one long side with a matching tongue down the other. Interior / exterior use and totally Fire proof FR1/90/90/90 and over. This board comes in a grey finish and is also perfect for decks and exterior applications. (16mm and 20mm thick 27/6 and 27/9)

More information available online.
Fire Protection

FireCrunch Fire Separation Wall Systems
The simplest fire wall is the single stud, double panel fire wall system. With just 10mm of FireCrunch on each side of a single stud and suitable insulation,

FireCrunch achieves a FRL 90/90/90 on steel frames and FRL 60/60/60 on timber frames.****

The acoustic rating for this wall in double stud are separation system is Rw62 net ctr Rw 52 making it the perfect solution for most BCA residential are wall situations.

BUSHFIRE ZONES
This FCA single wall system meets all residential to BAL F2 (Flame Zone) and well above the required FRL.

FireCrunch Double Stud
Fire Common Wall (Party Wall) System
The FireCrunch shaftliner alternative. With just 1x10mm thick FireCrunch each side of a double stud and suitable insulation, FireCrunch eliminates the need for an additional central shaftliner panel.

This system achieves a FRL 90/90/90 on steel frames and FRL 60/60/60 on timber frames. [Timber frames require minimum 75kg Rock wool batt]

The acoustic rating for this wall is 62 plus ctr net Rw 52 An ideal solution for most BCA Hi Rise residential party wall projects, eliminates multiple layers of “labour expensive” plasterboard. The acoustic rating for this wall in double stud fire separation system is Rw62 net ctr Rw 52 making it the perfect solution for most BCA residential area wall situations.

**** DENOTES SPECIAL ATTENTION FOR TIMBER FRAMES, SEE FIRE MANUAL
THE MANUFACTURING OF FIRECRUNCH
PRODUCES 90% LESS CO₂ POLLUTANTS
COMPARED TO PLASTERBOARD PRODUCTS

STRENGTH
FireCrunch is strong. It will last a lot longer than standard CFC building boards therefore replacement and maintenance do not become an issue. The less you have to replace, the less damage to the environment.

FIRE
FireCrunch - for 100% Fire Resistant floors, ceilings, walls, decking and external linings. Tested and approved for building in BAL FZ, FRL 30/30/30 to 90/90/90 tested SOLUTIONS TO FRL 90/90/90 and ABOVE. (ASK US) CALL 1300 933 102

FLOOD
FireCrunch does not degrade in water. It remains inert and can be unscrewed from timber frames to enable the timber to dry out before being rescrewed to the forming. The product simply requires a clean up and repaint and is reinstalled with normal power tools or screwdrivers. No messy plaster board degrade and no damage. T&G flooring and decking Board is also designed water resistant.

TERMITES
One of the biggest issues for Australian homes is Termites. FireCrunch is made from a uniquely formulated, non-toxic fibre composite mix so is impervious to termites and insects. Totally protects expensive timber framing.

CARBON NEUTRAL
Cement board and plasterboard manufacturing use kiln temperatures in excess of 1300°C. FireCrunch is produced at temperatures around 650°C therefore producing 50% less CO₂ and during the manufacturing process, in carbonation. FireCrunch draws back 90% of the CO₂ created in production and makes it a virtually carbon neutral product. (5%) (New Scientist USA) MgO Products

TREE FRIENDLY
FireCrunch has a Green environmental policy and has been determined to reduce CO₂ output in manufacture. FireCrunch uses only 3% wood chip the manufacturing process, leaving the trees to draw back carbon dioxide from the atmosphere in natural form. FCA is 45% recycled waste product

EARTH FRIENDLY
Due to the makeup of the board, FireCrunch will last for periods much longer than standard building boards, therefore requires less repair. Even where the board has been damaged, it can be recut and used again, unlike plaster board.
FireCrunch will not burn and has been tested to 1200°C with no combustion or flame out.

FireCrunch does not hold water and so superheated steam will not “blow out” the product as it may do with standard building bricks in fire conditions.

FireCrunch will not burn in a fire storm. FireCrunch is applicable in BAL 12.5 to 40 and FZ flame zone regulation areas when used to protect exposed timber framing eaves joists etc (AS3959). Tested by the CSIRO to worst case scenario fire storm conditions. Meets AS/NZS 1530.8.1 & 8.2. and AS/NZS 3837. CSIRO, NATA Tested AS/1530.4-2005. (NON ASBESTOS TESTED NATA CLEARSAFE NSW (AS/4964-2004).

FireCrunch insulation properties help protect internal furnishing from internal combustion and flash burning from high external temperatures.

FireCrunch will not ignite from ember attacks. Bushfire ember attack is the largest single national contributor to home loss.

FireCrunch is 8 to 10 times stronger than normal plaster board products and insulates from intense heat and cold.

FireCrunch will not degrade or break down in water and resists mould and mildew so is ideal for flood prone areas.

FireCrunch is of no interest to termites and KILLS bacteria.
GENERAL FEATURES

- Fireproof to extremely high temperatures (1200°C) FRL 90/90/90.
- Meets BAL 12.5 to 40 and FZ (Flame Zone) to maximum irradiance 50kW/m² - consult the rural fire authorities in your area to confirm to the Local Asset Protection Zones (APZ) requirements.
- Non Combustible, AS/1530.4-2005, AS/3837 BCA STD
- All weather product (interior/exterior when sealed).
- Resistant to flooding and prolonged water emersion.
- Resistant to mould, mildew and kills bacteria.
- Totally resistant to termites, protects timber framing.
- Low thermal conductivity ~1.92 (W/ mk).
- High Australian insulation Batt combination R values.
- Acoustic Rating Rw 62 + Ctr 52 / 10mm.
- Strike resistant, durable and 10 x stronger than plasterboard.
- Non polluting, non toxic, low CO₂
- Prevents bacterial growth.
- Green Product - very low CO₂ emission in manufacturing making FireCrunch virtually carbon neutral.
- Can be cut, drilled, sawn or planed like timber. Use timber tools.
- No special trades tools required, no pre drilling like CFC.
- Can be textured, rendered, painted, tiled etc.
- 100% recyclable material. Green labelled.
FireCrunch meets the structural integrity requirements of the Australian Building Codes Board (A BCB) when the board is screwed to the steel framing as used in normal frames assembly. FireCrunch provides extensive protection and additional integrity to timber forming when clad with FireCrunch in fire and flood conditions.

Complies with the Building Code of Australia: FIRECRUNCH FIRE TESTED TO BCA BY THE CSIRO

- BCA Volume One 2014: C1.8 Lightweight Construction, C1.10 Fire hazard properties and C1.12 noncombustible components, including state variations for NSW.
- BCA Volume Two 2014: Part 3.5.3.3, Fibre Cement Planks and Weatherboard Cladding.
- BCA Volume Two 2014: Part 3.5.3.4, Fibre Cements Sheet Wall Cladding.
- BCA Volume Two 2014: Part 3.5.3.5, Eaves and Soft Fit Linings.
- BCA Volume Two 2014: Part 3.7.1, Fire separation for FRL, including state variations for SA.
- BCA Volume Two 2014: Part 3.7.4, Bushfire areas to Part 3.7.4.0 and 3.7.4.1, including state variations NSW, QLD, SA and T AS.
- BCA Volume Two 2014: Part 3.8.6, Sound Insulation, including State and Territory for NT.

FireCrunch - Group 1 Fire Rating has been FIRE TESTED by the CSIRO
The FireCrunch building lining product :FireCrunch FIRE TESTED to BCA by the CSIRO to the Certificate level standards of AS/1530.4-2005 AND AS/NZS 3837 Non combustible materials test (BCA) being the highest fire tested (Group 1) product.

PLUS AS/NZS 1530.4/2014 FRL 30/30/30 To 90/90/90 LOAD BEARING and Higher 120/120/120 with 2 LAYERS OF 10MM LOAD BEARING.(DTS-NCC contact FireCrunch for further information).

1300 933 102 technical@firecrunch.com.au