FireCrunch

FireCrunch offers a new era in **eco-friendly and 95% Carbon Neutral building products and building materials.** FireCrunch is a composite of steel processing derivatives bonded with integral magnesia mix composite materials and processed volcanic scoria finally carbonated with a specified level of magnesium Sulphate which eliminates any metal corrosion found in regular MgO boards which all have a metal corrosive chloride bonder. FCA also uses an HD fibre mesh composite sheeting which provides its enhanced strength. FireCrunch has no asbestos, chloride, formaldehyde or any toxic derivatives or toxic chemicals that can cause harm to health. FireCrunch is One board with many applications. See SDS web site.
See NATA certificates of Content compliance web site under certification firecrunch.com.au/certification

KEY FEATURES

The fine, densely bonded, mineral fibre structure (1.15g /cm3) of FireCrunch ensures excellent machining and working properties using normal woodworking equipment or hand tools. In addition, the smooth face surface provides an ideal base for paint finishing (class 4 to 5 top rate commercial) with all industrial and domestic coatings. The back surface of FireCrunch is characterised by a coarse, wire screen texture which makes it ideal for rendering and tiling. FireCrunch is available in a range of accurately dimensioned sheet sizes and in thicknesses but requires 10mm for ceilings.

AUSTRALIAN BCA Standards CERTIFICATION

- BCA Volume Two 2014: Part 3.5.3.4, Fibre cement sheeting
- BCA Volume One 2014: C1.8 Lightweight Construction, C1.10 Fire hazard properties and C1.12 non-combustible components, including state variations for NSW AS/1530.1 National BCA
- 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 Soffit Linings.
- BCA Volume Two 2014: Part 3.7.1, Fire separation for FRL, including state variations for SA. (Refer to limitation).
- 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 TAS.

FIRE PROPERTIES

FireCrunch is totally fire resistant. It will not burn in a FIRE STORM.
FireCrunch panels also meet the requirements of the following Methods for fire tests on building materials:

- AS/1530.4 - Fire resistance test to building material – relative standard.
- AS/1530.4 - Components and structures (FRL 60/60/60, FRL 90/90/90- FRL-120/120) .
- AS/1530.4-2014/19 Fire-resistance test of elements of construction.
- AS/1530.1 - Non Combustibility test for materials.
- AS/3837: simultaneous determination of ignitability, flame propagation, heat release and smoke release..
- AS/1530.4 - Fire-resistance test of elements of construction.
- AS/1530.8.1- Tests on elements of construction for buildings exposed to simulated bushfire attack - Radiant heat and small flaming sources.
- AS/1530.8.2- Tests on elements of construction for buildings exposed to simulated bushfire attack - Large flaming sources. Complies under AS1530.4 /2014 FIRE ENGINEERS REPORT NCC.

FireCrunch is applicable in BAL low, 12.5,19, 29, 40 or FZ (Fire Zone - over 50Kw m2 irradiation, 1200°C) regulation areas and meets the AS/3959 /(2019) Mods requirements, when used to protect timber framing.

PRODUCT APPLICATIONS

FireCrunch has a very wide range of uses for residential, commercial and industrial buildings, schools, hospitals, Government & social housing, utility buildings etc. The board has additional applications in fire safety, electrical switchboard backing blocks, electrical wiring channels and internal electrical risers in multi-story and commercial buildings. Internal applications: internal walls, ceilings, floor sub base, tile backer, counter tops, kitchen furniture, built in wardrobes, hot areas. Wet area applications: bathrooms, shower recess, kitchen - sealed correctly, FireCrunch is suitable for any wet areas or humidity prone areas. FireCrunch is mould resistant and will not degrade in standing water or flood conditions it remains inert and can simply be dried, re plaster set and repainted. Exterior applications: wall panels, soffits, lining or decking (meets AS/NZS 3959 BAL Fire Zone Regulation). Must be fully weather sealed. Can be painted, papered, tiled, rendered or veneered.

ENVIRONMENTAL PROPERTIES

During the manufacturing process, in carbonation, FireCrunch draws back 90% of the Co2 created in mfg and makes it a virtually carbon neutral product. FireCrunch is a 45% recycled waste product 100% recyclable. See the FireCrunch website for more environmental properties.

STORAGE & HANDLING

Store flat, under cover on a horizontal pallet or on supports spaced at not more than 450mm centres. Must be kept under cover away from all weather conditions before use. Always handle with at least one person at each end of the board. With hands apart, lift the board and tilt to prevent sagging.

OCCUPATIONAL HEALTH AND SAFETY

The work involved in sawing, drilling, sanding or otherwise treating FireCrunch sheets should minimise dust generation and be carried out in a well-ventilated area. Use an extractor on power bench saws with replaceable filter or disposable half respirator to avoid respiratory problems and wear long sleeved shirts . Industrial safety glasses or non fogging goggles should also be worn.

WHAT TOOLS DO I NEED?

No special tools are required to use FireCrunch. It can be sawn, drilled, screwed and planed using timber tools.

CUTTING & MACHINING

FireCrunch is easy to work and machine with normal woodworking tools and equipment. Cut sheets with a fine tooth handsaw or power saw. Edges may be trimmed with a smoothing plane, power plane or sandpaper. Where holes are required clean cutter bits or twist drills are satisfactory. Woodworking shapers, spindle moulders and high speed routers may be used to shape or mould the edges of FireCrunch. Tungsten carbide tipped cutters are preferred for long production runs.

GENERAL FIXING & INSTALLATION RECOMMENDED BOARD THICKNESS USE

Board Thickness	Recommended Use	Edges
12mm	INT/ EXT Fire proof weather board	Ship Lap
10mm	Walls (internal and external), Ceilings	Square, Recessed
19mm	External Walls, Floors, Decks, Roofing	Tongue & Groove

INTERIOR/EXTERIOR LINING

Position fasteners a minimum of 50mm from corners and min. 12mm from edges. All facing surfaces must be pre-sealed with Rockcote MgO sealer (see recc product web site) and finished with regular paints for fine finish .
Stud adhesives should only be used for board positioning, not fastening. Installed boards must be screw fastened.
TIMBER FRAMING General wall installation to conventional wood or steel frame construction. Use self countersink ribbed head screws spaced 200mm on centre at panel edges and intermediate framing members spaced up to 300mm centres for 10mm sheets.
STEEL FRAMING General wall installation to conventional Min 20 GA Bluescope steel or similar metal frame construction. Use minimum no. 8-18 x 8.5mm HD suitable length long, ribbed head bugle corrosion proof screws spaced 200mm centres at panel edges and intermediate framing members spaced up to 300mm (ceilings) centres (depending on use).
JOINT TREATMENT FireCrunch TE recessed edge panels can be fastened at a butting board edges centred on the backing battons at max 300 centres .
(IMPORTANT) Do not fire seal the butt joints on internal cladding work.
Gun 3 beads of fire sealant down the backing batten face, use Bostik Fire ban or any AS/1530.4 approved fire sealant.

SCREWING

All screws must be corrosion proof (stainless steel recommended for external ceilings garages carports etc).
For screwing FireCrunch panels to steel framing , we recommend using self Countersink Ribbed Head screws.
For screwing FireCrunch panels to wood framing , we recommend using 8-10 Countersunk Bugle Head Class 2 / 3 needle point screws (depending on timber hardness). Maximum depth between surface of screw head and surface of FireCrunch should not be more than 2.0mm (10,12 and 19mm board).

Recommended Screw Sizes

Board Thickness	Screw Length	Board Thickness	Screw Length
		12mm TS	35mm
10mm SE, TE	30mm	19mm TG	45-50mm

FIXING NOTES

- TIMBER or STEEL framed ceilings are to be constructed strictly in accordance with the Building Code of Australia and all relevant Standards.

- FireCrunch sheets are to be fixed with the long side at right angles to the 300mm ceiling battens min 0.75 BMT or timber .

- If stud adhesive used, apply 25mm diameter patches of recommended adhesive at a maximum of 200mm centres and a minimum of 200mm from all fasteners. Adhesive must not be used instead of screw fasteners.

- Firmly hold the boards against the joists while fasteners are positioned and, where possible, start from the centre and work to the ends and edges.

- Fasten min. 12mm from the edge and min. 50mm from corners of ceiling at a maximum of 200mm and at a maximum of 200mm centres in the field of sheets.
- Back-blocking is a mandatory fixing requirement where specified in AS/2589 2007 and failure to install back-blocking may lead to rectification claims for defective joints. (Use recessed edge board TE 10mm and battons at 300 centres with 1200mm width board to avoid this .

  NOTE: FIRE SEALANT ONLY APPLIED ON THE BATTON BACKING FACE OF BUTT JOINTS NOT BETWEEN BUTT OR RECESSED EDGE JOINTS ON "INTERNAL" PLASTER SET JOINT SHEETS.

- IF BUTTING BETWEEN BATTONS, cut 200mm wide back-blocking pieces to fit loosely between joists and centrally on joints. Fix with recommended cornice adhesive and/or screws at maximum 200mm centres where butt joints are positioned between joists and at the edges of all sheets. Use 2-3mm packers to form hollows for later filling with recommended jointing material and hold for at least 24 hours with temporary battens at each joint.

- Fasteners should finish with the head just below the surface of the FireCrunch. FireCrunch is strong but care should be taken not to damage the core or face pre set drill.

- Where the ceilings are to be installed in areas where a fire resistance level (FR) is required, please consult the FireCrunch manual on the FireCrunch website for FRL required. firecrunch.com.au sales@firecrunch.com.au call today 1300 933 102 page 3

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- BCA Volume One 2014: C1.8 Lightweight Construction, C1.10 Fire hazard properties and C1.12 non-combustible components, including state variations for NSW AS/1530.1 National BCA

- BCA Volume Two 2014: Part 3.5.3.3, Fibre Cement Planks and Weatherboard Cladding.

INDICATIVE CONSTRUCTION DIAGRAM
As every building is different the following diagram is provided as an indicative guide to the use of FireCrunch in non-fire rated dry area situations. Architects, designers and contractors should consult FireCrunch if additional assistance is required.

SEE RECOMMENDED PRODUCTS ON THE FireCrunch SUPPORT SITE for Fastener PRODUCT INFORMATION www.firecrunch.com.au

RECOMMENDED PRODUCTS
Products recommended for use with FireCrunch are continually being added as we test the compatibility of application products and systems.
https://firecrunch.com.au/wp-content/uploads/2018/10/08_008_F-CA_General-TECH-Data-Manual.pdf
The latest products that have been tested and approved for use on the FireCrunch product can be viewed on the FireCrunch website under Recommended Products.
https://firecrunch.com.au/recommended-products/

What type of fastener should I use?

STEEL FRAMES

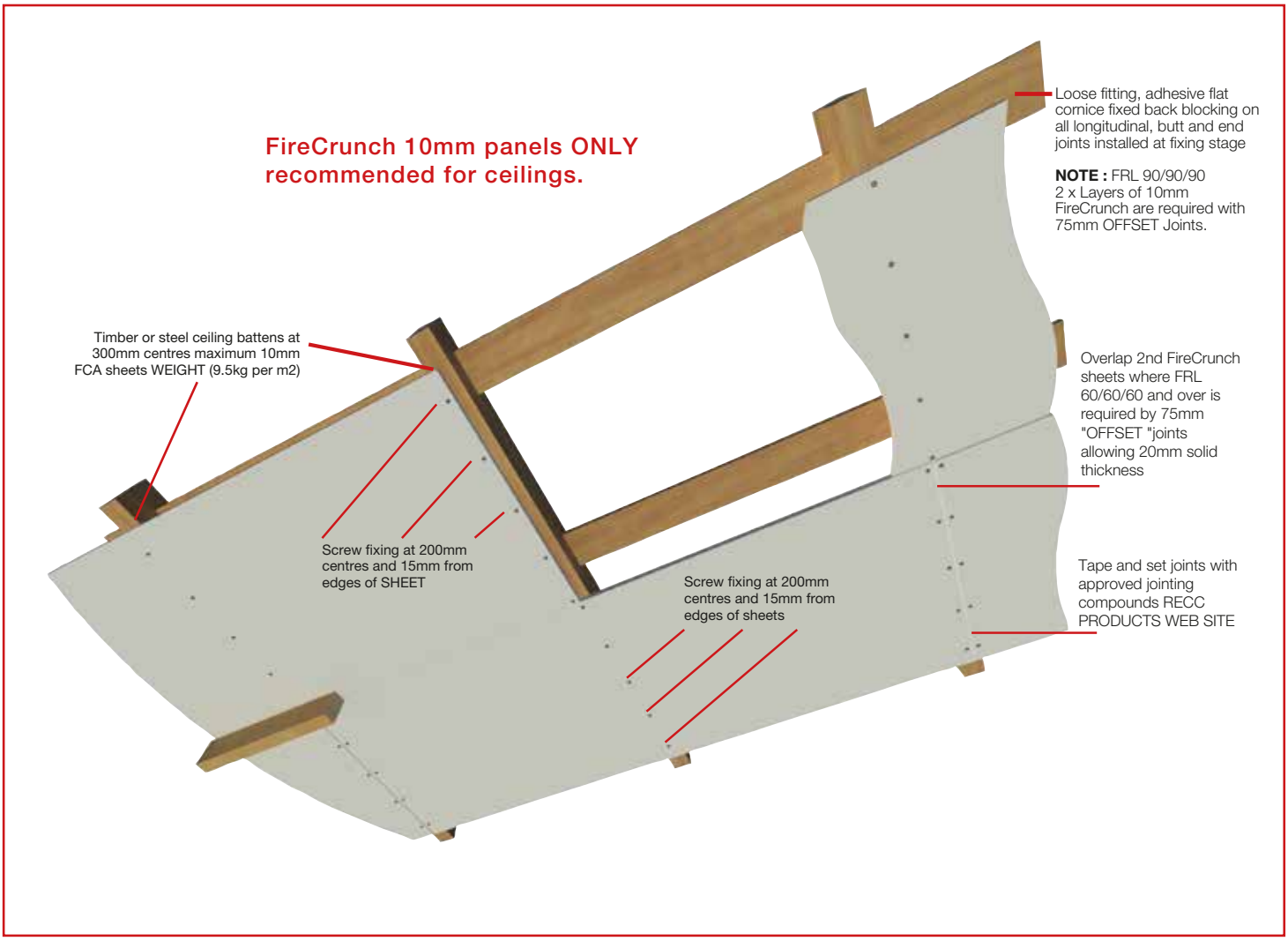
We recommend using Countersunk Ribbed Head screws.

10 gauge, 16 TPI, 25mm, CSK rib, X Drive#1, DP

TIMBER FRAMES

We recommend using 8-10 Countersunk Bugle Head Class 2 / 3 Needle point screws (depending on timber hardness).Maximum depth between surface of screw head and surface of FireCrunch should not more than 3.0mm.

QUICK NOTES

SCREWS Steel Frame Countersunk Ribbed Head screws
Wood Frame 8-10 Countersunk Bugle Head Class 2 / 3 Needle Point screws
- Fix at every batten and along sheet centre line
- Butt Joints: Fix at 200mm centres

BACK Blocking
Back-blocking is a mandatory fixing requirement where specified in AS/2589.1.2007 in non backed butt joints.