NATA CERTIFIED NO METAL CORROSIVE CHLORIDE MgSO4 Sulphate Board

Technical Reference Installation { GENERAL

FireCrunch is an environmental and extensively tested modern building board used in internal and external construction and cladding. It is made from a composite of magnesium-oxide, non organic minerals, bonders ,fibre mesh composites and NON METAL CORROSIVE (MgSO4).

FireCrunch contains no formaldehyde, no asbestos, NO "Metal Corrosive" CHLORIDE and no toxic chemicals. See (SDS - Safety Data Sheet) Uses only Mag Sulphate bonders (MgSO4) No VOC's. AUST/NATA

Key Features

This fine densely bonded "NON chloride" magnesium oxide /sulphate board ensures excellent machining and working properties with normal woodworking tools, saws, drills and planes, no expensive diamond cutting tools required.
The smooth class 4/5 with recessed edges requires no extra finish plaster board and provides the perfect base for MgO sealing, painting, rendering, bagging with general purpose products, while providing BCA NATA labs CSIRO tested fire protection.

FCA AVAILABLE IN STANDARD INDUSTRY SIZES AND EDGES.

2400, 2700 and 3000 all 1200mm wide SQ and Recessed edge 10m and 19mm Tongue and Groove board flooring and external decking for easy fit, lighter weight and no expensive predrilling, like heavy, expensive CFC,INEX Secura floor ,Cemintel ,Scyon , CSR , JAMES HARDY etc and up to **30% less in $ cost.**

IMPORTANT NOTE

Unlike most MgO board available in Australia to date **FireCrunch FCA contains no steel corrosive chloride. FCA uses Mag Sulphate bonders (MgSO4) which eliminates all corrosive action.**

PRODUCT APPLICATIONS

Australian NATA accredited CSIRO LABS fire testing to BCA.
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 MAJOR application in internal , external cladding ,intertenancy and fire separation walls in hi rise construction and additional applications channels and internal electrical risers, air conditioning and lift shafts in multi-story and commercial buildings.

INTERNAL APPLICATIONS: Fire separation walls FRL90/90/90 and over .

FCA is a fire proof and finish surface board, Class 4/5 top commercial ,also suitable for wet area applications :Bathrooms, tile backer, shower recess, kitchens bathroom flooring substrate - once sealed correctly, suitable for any wet areas and especially humidity prone areas. FireCrunch is mould resistant and will not degrade in standing water or FLOOD CONDITIONS, just dry out in 48 to 72 hours, clean surfaces reset plaster joints and repaint, less mess, low cost and **check your insurer for a better premium using FCA products !**

EXTERIOR APPLICATIONS:

(Meets AS/NZS 3959 BAL FZ Flame Zone Regulations). Must be weather sealed with Rockcoat MgO sealer on front and sides do not seal the back of board ,it can then be painted, papered, tiled, rendered or veneered.
(BCA Fire Test Certified NATA/ CSIRO NOTE: board must be stored out of weather, prior to use remove any plastic wrapping which will other wise raise humidity.

CSIRO/ NATA FIRE TESTED (NCC)

FireCrunch is applicable in BAL 29, 40 or FZ (Flame Zone) regulation areas and meets the AS 3959 requirements, when used to protect exposed timber framing eaves joists etc., Non Combustible under AS/ 3837 Load Bearing FRL 60/60/60 (10mm on Dbl stud Timber frame) Load Bearing FRL 90/90/90 (10mm on steel frame)
Non Load Bearing FRL-/120/120 ,2 x 10mm each side on Steel frame walls (NCC) Fire Wall Penetrations to FRL 90/00/90 SNAP fire collars .
CSIRO Fire Test AS / 1530.4-2014 and AS/1530.1 NON COMBUSTIBLE MATERIALS C1.10 AND C1.12

COMPLIES WITH THE BUILDING CODE OF AUSTRALIA

FireCrunch is Fire Tested under CSIRO Certificates No's: 2674 / 2707 / FCO-3165 ISO /IEC 17025
BCA Volume One 2014: C1.8 Lightweight Construction, C1.10 Group 1 Fire hazard properties and C1.12 non-combustible AS /3837 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 Sofits Linings.
BCA Volume Two 2014: Part 3.7.1, Fire separation for FRL, including state variations for SA. (Refer to limitation e).
BCA Volume Two 2014: Part 3.7.1, Bushfire areas to Part 3.7.4.0 and 3.7.4.1, including state variations NSW, QLD, SA and TAS.

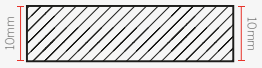
FIRE TESTED BY CSIRO / BCA

firecrunch.com.au

PRODUCT DETAIL

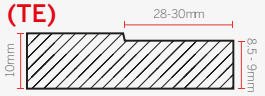
SQUARE EDGE (SE)

Standard form panels with 10mm square edges all sides.
Available thickness: 10mm



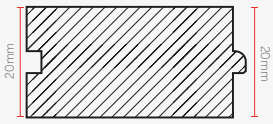
TAPERED EDGE (PLASTER SET JOINTS) (TE)

Professional form panels with 30mm width and 1.5mm depth recess on long edges.
Available thickness: 10mm



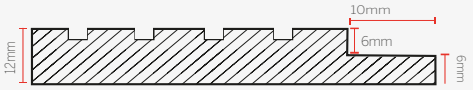
TONGUE AND GROOVE (TG)

Specialty Flooring & Decking panels.
High Density / Water Resistant surface.
Available thickness: 19mm



Drawings not to scale

GROOVED WEATHER BOARD 12mm SHIP LAP (TS)



Standard Stock Sizes* (OTHERS SPECIAL ORDERS)

Board Size (mm)	Thickness	Weight	Edge
1200 x 2400	6mm	17kg	Square
1200 x 2700	6mm	19kg	Square
1200 x 3000	6mm	21kg	Square
1200 x 2400	8mm	26kg	Square
1200 x 3000	8mm	30kg	Square
1000 x 2700	12mm	38kg	Weather board Ship/lap joint
1200 x 2400 *	10mm	28kg	Square/Tapered
1200 x 2700 *	10mm	32kg	Square/Tapered
1200 x 3000 *	10mm	35kg	Square/Tapered
600 x 2700 *	19mm	32kg/39kg	T&G

ACCOUSTIC PROPERTIES

FireCrunch Panels significantly improves acoustic performance. Its construction actively dampens noise and reduces the sound waves entering, exiting acoustic and Fire separation walls.
FireCrunch MgO sheets have been tested in zero insulation conditions on a 90mm steel frame using (1.15mm BMT) in single and double stud in discontinuous format with fire and acoustics batts up to min R2.5 Glasswool batt density. This provides up to Rw 62 plus ctr net=Rw 52.
Higher density min R2.5 batts will provide a corresponding increase in Rw/ctr net /acoustic batt min R2.5
Check acoustics tests by "Kilargo" under certifications web site firecrunch.com.au

Product Properties (Standard Board)

Characteristic	Unit	Unit Description
Density	1.15 (g/cm^3)	Grams per cubic centimetre
Tensile Strength	>5.5 (MPa)	Mega pascal units
Compressive Strength	~20 (MPa)	Mega pascal units
Striking Resistant Strength	±23 (N/mm^2)	Newton per square millimetre
Dimensional Change	0.5 (%)	Percentage of water absorption
Modulus of Elasticity	~6045 (N/mm^2)	Newton per square millimetre
Flexibility	~20.1 (N/mm^2)	Newton per square millimetre
Thermal Conductivity	~0.152 (W/mK)	High Aust. Insulation Rating
Asbestos	**0 %**	**Absent - NATA LAB TESTED**
Formaldehyde	**0 %**	**Absent - MFG TESTED**
Magnesium Chloride	**0%**	**Absent - NATA LAB TESTED**
Freeze Thawing Test	No change after 25 cycles of freeze Thawing	

FIRE TESTED BY CSIRO / BCA

firecrunch.com.au

Environmental Properties

During the manufacturing process, in carbonation,
FireCrunch draws back 90% of the CO2 created in manufacture and makes it a **virtually carbon neutral** product.

Cutting & Machining

FireCrunch is easy to work and machine with normal woodworking tools and equipment. Cut sheet with a fine tooth handsaw or power saw. Edges may be trimmed with a smoothing plane, power plane or light sandpaper. Panels with thicknesses 1 0mm can be deep scored with a cutting knife and snapped along the straight edge in the same way as you would with gypsum boards. Where holes are required clean cutter bits or twist drills are satisfactory. Woodworking shapers, spindle moulders and high speed routers can be used to shape or mold the edges of FireCrunch. Tungsten carbide tipped cutters are preferred for very long production runs.

Finishing /Sealing & Protection (see recommended products on website)

Panels used in external application must be faced with weather sealed prior to or right after installation,and immediately if in high humidity and coastal areas. **Do not seal back face of board** FCA is an ECO Green "breathing product"
FCA products contain no metal corrosive Chloride only "**Non Corrosive"** magnesium sulphate (MgSO4) and set apart from all other MgO boards in Australia.

Patching

Dents and chips can be filled with cementatious patching compound or an elastomeric filler or similar pre coat product.

Fire Sealants (see recommended products on website)

A high quality, FIRE SEALANT is recommended. SEALANT should be applied in accordance with the **FCA guide and manufactuers instructions. TREMstop PU, Bostic Fireban, and Sikka range to AS/1530.4 see web site**

Painting (see recommended products on website)

FireCrunch should be primed with **"Rockcote" specially developed MgO sealer primer** to provide an eexcellent paint surface ffor best results. Refer to manufacturers' specifications for applications.

Rendering and Plastering (see recommended products on website)

FireCrunch **must** be primed with **"Rockcote" specially developed MgO sealer primer** to provide an excellent paint surface seal for best results. Refer to manufacturers' specifications for applications. Rendering follow render mfg instructions as per usual.

Plaster joint flushing (see Technical specs / manuals on website)

FOR WARRANTIES TO APPLY USE ONLY THE PRO PLASTER PRODUCTS SHOWN ON WEB SITE. **PAPER TAPES must NOT be used with FireCrunch externally**, only internally. Fiba Fuse taping products must be used externally and **must NOT** be used for Internally plaster joints setting. Carefully check mfg compond instructions. Before use **DO NOT LEAVE A 4mm FIRE SEALANT GAP BETWEEN INTERNAL FCA BOARDS**. GUN FIRE SEALANT DOWN THE INTERNAL WALL STUD FACE ONLY, with 2/3mm beads, press boards onto sealant and screw fix leaving only a 1mm sealant pressured gap, use plaster set FIRECRUNCH procedures with (paper tape) and PRO PLASTER TRADES 40 BASE FIRST AND SECOND COAT (DO NOT USE LONGER PERIOD COMPONDS) and (4T) TOPPING for FEATHERING OUT JOINT COVER. **See detail on website : Recommended Products**

Tiling

FireCrunch can be tiled on either face and is particularly useful in wet and humid areas. In wet areas **use the Rockcoat special MgO sealer on face ONLY and refer to TILES ADHESIVE MFG INSTRUCTIONS, leave inner side unsealed** before tiling. Tiling should be installed in accordance with Good Trade Practice. Additional information on Tiling can be found in the publication 'Good Tiling Practice' from BRANZ or simlar.~ **set over not less than minimum 450mm joise centres.** FireCrunch must not be left out in wet or moist conditions befor use. Store FLAT under cover on a horizontal pallet or on glut supports spaced at maximum 450 centres with both end edges supported.

Health & Safety Conditions

FireCrunch generally weighs less than most similar building panels making it easier to handle. (See SDS for other aspects web site). Dust generated from cutting on bench saws should have a dust extractor . Do NOT breathe in dust. Wear a mask if using power tools.

Fixing & Installation Interior/Exterior Lining

(DO NOT USE STUD GLUE IN FIRE RATED WALLS)

Position fasteners a minimum of 50mm from corners and 12mm -15mm from edge .
All facing surfaces must be finished with suitable and approved finishes (web site recommended products).

Timber Framing

Installation to conventional wood frame construction corrosion proof self countersink Ribbbed head bugle needle point screws spaced 200mm centres and 12mm to 15mm from board edges (FRL 60/60/60) Dbl stud timber fire wall.

Steel Framing

Installation to conventional 20ga (min. 1.5 BMT) Galvanised steel frame construction in most locations: minimum No. 8-18 x 8.5mm HD x 25mm long ,ribbed head bugle, corrosion proof screws spaced 200mm centres at panel edges min 12mm and intermediate framing members spaced up to 200mm centres stagger fixings on adjacent panels .Stainless steel or GALVANISED SCREWS required for use in external or wet area applications. Use corrosion proof screws elsewhere.

Fire Joint Treatment

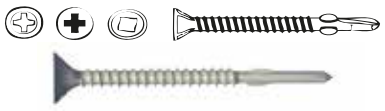
FireCrunch SE (SQ edge) panels fastened at abutting board edges must have ,a backing nog or stud to back the joint, tool down fire sealant 2 to 3mm and texture coat surface (class 4/5 finish) Do not use PVC strips in BAL Fire areas or FIRE WALLS use metal joiners, battens min 0.75BMT and Fire seal with recommended fire sealants AS/1530.4. See the FireCrunch website firecrunch.com.au for alternative weather and fire sealers see recommended products .

Nailing

DO NOT NAIL FIRECRUNCH. INSTALLATION MANUALS DO NOT SPECIFY THE USE OF NAILS IN ANY SYSTEM APPLICATION, USING NAILS INSTEAD OF SCREW FASTENERS WILL VOID THE FIRECRUNCH WARRANTY

Screwing

For steel framing, we recommend using self Countersink Ribbed Head bugle screws. Stainless steel screws should be used in external or wet applications



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

For screwing FireCrunch panels to timber framing, we recommend stainless steel or corrosion proof screws plated 8-10 self Countersink 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.

All fasteners must be corrosion proof .Quality stainless steel or Galvansed fasteners to be used for external and wet areas.

Recommended Screw Sizes

Board Thickness	Screw Length	Board Thickness	Screw Length
10mm	30mm	19mm	45-50mm