

Technical Reference Installation **GENERAL**

FireCrunch is an environmental and extensively fire 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 10mm K-CLAD, 19mm K-FLOOR Tongue and Groove board flooring 2700 x 600mm, and External 16mm K-Deck and 12mm K-Wall Groove board.

IMPORTANT NOTE

Unlike most MgO board available in Australia to date FireCrunch contains NO steel corrosive chloride. FireCrunch uses Mag Sulphate bonders (MgSO₄) which eliminates all steel 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 after sealing with recommended primer sealer it will not degrade in standing water or FLOOD once properly sealed with **KLAAS S1 PRIMER SEALER**, 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/ 3959 BAL FZ Flame Zone Regulations). Must be weather sealed with Klaas Coatings S1 primer sealer on front do not seal the back of board, it can then be painted, texture painted, tiled, or veneered. for rendering see mfg instructions (BCA Fire Test Certified NATA/ CSIRO

NOTE: board must be stored out of weather, prior to use remove any plastic wrapping which will otherwise raise humidity.

CSIRO/ NATA FIRE TESTED (NCC) BUSH FIRES.

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/ 1530.1 Load Bearing FRL 90 minutes (Just 1 x 10mm sheet per side) 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 .../90/90 SNAP fire collars. **CSIRO Fire Test AS /1530.4 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 2019: 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 2019: Part 3.5.3.3, Fibre Cement Planks and Weatherboard Cladding.

BCA Volume Two 2019: Part 3.5.3.4, Fibre Cements Sheet Wall Cladding.

BCA Volume Two 2019: Part 3.5.3.5, Eaves and Sofits Linings.

BCA Volume Two 2019: Part 3.7.1, Fire separation for FRL, including state variations for SA. (Refer to limitation e).

BCA Volume Two 2019: 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.

TECHNICAL
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NOTE: FCA ref, is FireCrunch Australia

CALL TODAY **1300 933 102**

sales@firecrunch.com.au



firecrunch.com.au



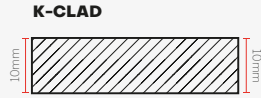
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PRODUCT DETAIL

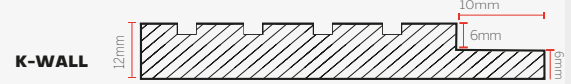
SQUARE EDGE (SE)

Standard sizes panels with SQ edges all sides. Available thickness: 10mm

ORDER CODE: FCA-SE10 -ADD SIZES



GROOVED WEATHER BOARD 12mm SHIP LAP (TS)

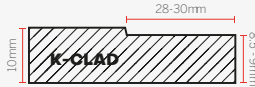


ORDER CODE: FCA-TS12 -2700 X 1000

RECESSED EDGE (TE10) FOR PLASTER SET INTERIORS WALLS AND CEILINGS

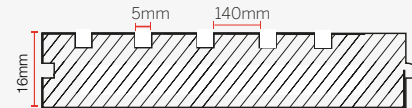
Standard sizes panels with 30mm width and 1.5mm depth recess on long edges. Available thickness: 10mm

ORDER CODE: FCA-TE10 -ADD SIZES



K-DECK Grooved DECKING

16mm Tongue and Groove (TGDK)
Grooved decking board
Size: 2700 x 600 16mm TGDK



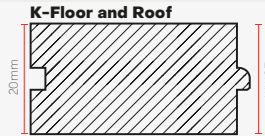
Groove sections 5mm wide , 140mm plank width

ORDER CODE: FCA-TG16DK-2700 X 600

TONGUE AND GROOVE (TG)

Specialty Flooring & Decking panels. High Density 1.15g/cm³, available thickness 19mm ONE Size: 2700 x600

ORDER CODE: FCA-TG19 -2700 X 600



Drawings not to scale

STANDARD STOCK SIZES

PRODUCT NAME OF BOARD	SIZE: WIDTH X LENGTH mm	THICKNESS	EDGE	WEIGHT	PATTERN
K -FLOOR	600 x 2700	19mm	TONGUE & GROOVE	36kg	FLAT/ SMOOTH
K-DECK	600 x 2700	16mm	TONGUE & GROOVE	32kg	GROOVE
K-WALL	1000 x 2700	12mm	SHIP LAP	36kg	GROOVE
K-CLAD (SE10) EXTERIOR	1200 x 2400	10mm	SQ Square	28kg	FLAT/ SMOOTH
K-CLAD (SE10) EXTERIOR	1200 x 2700	10mm	SQ Square	32kg	FLAT/ SMOOTH
K-CLAD (SE10) EXTERIOR	1200 x 3000	10mm	SQ Square	36kg	FLAT/ SMOOTH
K-CLAD (TE10) INTERIOR	1200 x 2400	10mm	RECESSED	28kg	FLAT/ SMOOTH
K-CLAD (TE10) INTERIOR	1200 x 2700	10mm	RECESSED	32kg	FLAT/ SMOOTH
K-CLAD (TE10) INTERIOR	1200 x 3000	10mm	RECESSED	36kg	FLAT/ SMOOTH

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	

ACOUSTIC PROPERTIES

FireCrunch Panels significantly improves acoustic performance. Its composite 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**



FIRE TESTED BY CSIRO / BCA

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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 DOES NOT DESTROY MILLIONS OF TREES to make paper lined plaster board.**

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 10mm 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 sealed with KLAAS Coatings S1 vapour permeable primer sealer, prior to, or right after installation, and immediately if in high humidity.

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. NATA certificates WEB site certifications.

Patching

Dents and chips can be filled with cementitious patching compound or an elastomeric filler.

Fire Sealants (see recommended products on website)

Panels used in external application must be faced with KLAAS Coatings S1 vapour permeable primer sealer, prior to, or right after manufacturers instructions. TREMstop PU, Bostic Fireban, and Sikka range to AS/1530.4 see web site

Sealer and Painting

PRE SEAL ALL FireCrunch MgSO₄ Products with: **KLAAS S 1 Primer Sealer**, vapour permeable sealer to provide an excellent paint surface for best results. Refer to manufacturers specifications for applications.

Interior and Exterior : Firecrunch boards need to be sealed with approved KLAAS S1 Primer Sealer.

Rendering (see recommended products on website) Rendering follow render mfg instructions

FireCrunch **must** be sealed with **Klass S1 permeable primer sealer** to provide an excellent paint surface seal.

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 or similar taping products must be used externally and must NOT be used for Internal plaster joints setting. Carefully check mfg compound instructions, before use

IMPORTANT: Do not leave a 6 mm fire sealant gap between internal FCA boards.

GUN FIRE SEALANT DOWN THE INTERNAL WALL STUD FACE ONLY, with 3 x 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 (40 minute) BASE 1st and 2nd coats (DO NOT USE LONGER PERIOD COMPOUNDS) then use Proplaster (4T) Topping** for feathering out. See detail on website : Recommended Products

Tiling

FireCrunch can be tiled on either face and is particularly useful in wet and humid areas. **USE ONLY Klass Coatings S1 permeable primer sealer on face of board ONLY.** FOR TILING REFER TO TILES ADHESIVE MFG INSTRUCTIONS, ALWAYS leave under side of K-Clad (FCA) or K-Floor, 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 similar. ~ set over maximum 450mm joist centres on 19mm TG when tiling FireCrunch **must not be left out in wet or moist conditions before use.**

Store **FLAT** under cover on a horizontal pallet or on glut supports spaced at maximum 450 centres with both end edges supported. **IF BOARD HAS BEEN EXPOSED TO RAIN AND WEATHER USE HYDROSCOPIC METER TO ENSURE DRIED TO 10% BEFORE SEALING AND PAINTING.**

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.



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Fixing & Installation Interior/Exterior Lining

(DO NOT USE INFLAMMABLE ADHESIVE IN FIRE RATED STUD WALLS)

Position recommended fixings a minimum of 50mm from corners and 12mm -15mm from edge .
All facing boards must be SEALED finished with suitable and approved primer sealer, after plaster set.
(web site recommended products).

Timber Framing

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

Steel Framing

Installation to conventional 20ga (min. 1. 15 BMT) Galvanised steel frame construction .

Fixings No. 8-18 x 8.5mm HD x 25mm long ,ribbed head bugle self C/S, corrosion proof screws spaced 200mm centres at panel edges min 12mm /15mm 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 (External walls)

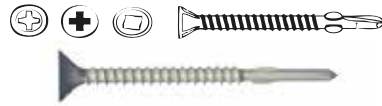
FireCrunch SE10 K-CLAD (SQ edge) panels fastened at abutting board edges must have , a backing nog or stud to back the joints, tool down fire sealant 2 to 3mm below edge of board and paint or texture coat board surface (class 4/5 finish) **DO NOT USE PVC STRIPS IN BAL FIRE AREAS OR FIRE WALLS**, use metal joiners, steel min 0.75BMT and Fire seal joints with recommended fire sealants . Type AS/1530.4. PU See the FireCrunch website firecrunch.com.au for alternative weather/fire sealant. See technical resources /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 & 12mm	30mm	16mm & 19mm	45-50mm

sales@firecrunch.com.au call today 1300 933 102



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