Fire Crunch
AUSTRALIAN CERTIFIED BUILDING SOLUTIONS

INSTALLATION - K-DECK 16mm - Tongue & Groove size: 2700x600mm

NOTE: This is not a controlled document so may vary. The latest installation manuals can be downloaded for the Firecrunch support website. Please ensure you have the latest version before you start installation firecrunch.com.au

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 waste derivatives (45% waste recovery) bonded with integral magnesia mix composite materials and processed volcanic scoria finally carbonated with a specified level of fibre mesh and magnesium sulfate (MgSO4) which provides its enhanced strength. Firecrunch has no asbestos, formaldehyde or magnesium chloride or any toxic derivatives or toxic chemicals or VOC that can cause harm to health. Firecrunch is One board with many applications.

KEY FEATURES K-DECK-16mm(TG)

The fine, densely bonded, mineral fibre structure 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 with most 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 10mm, SE/TE 12mm Shiplap edge,16mm TG Decking and 19mmTG flooring.

AUSTRALIAN CERTIFICATION

NATALABS CSIRO FIRE TESTED See Web
FireCrunch is Fire Tested under CSIRO Certificates
No's: 2674 / 2707 / FCO-3165 NATA LABS AUST. see certifcations web site

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

 AS1530.1 AS 1530.4
• BCA Volume Two : Part 3.5.3.3, Fibre Cement Planks and Weatherboard Cladding.
• BCA Volume Two : Part 3.5.3.4, Fibre Cements Sheet Wall Cladding.
• BCA Volume Two : Part 3.5.3.5, Eaves and Soffit Linings.
• BCA Volume Two : Part 3.7.1, Fire separation for FRL, including state variations for SA. (Refer to limitation e).
• BCA Volume Two : 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 non combustible. AS1530.1 AND SMOKE RELEASE AS/3837.
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.NATA CSIRO
• AS/1530.4 - Fire-resistance test of elements of construction. NATA CSIRO
• AS/1530.1 - Non Combustibility test for materials. NATA CSIRO
• AS/3837 -   Propagation, heat release and smoke release. NATA CSIRO AS/3837
• AS/1530.4 - Fire-resistance test of elements of construction. NATA CSIRO
• AS1530.8.1 and 8.2 small and large flaming sources Bush fires AS3959 NATA bushfire attack - Radiant heat a 50Kw/ M2 and small flaming sources.
• AS/1530.8.2 - Tests on elements of construction for buildings exposed to simulated
• UNDER (NCC) Alternative Performance Solutions (APS) Registered FIRE ENGINEER assessment of test AS/3959 NATA RESOLUTE LABS QLD
Firecrunch is applicable in BAL low, 12.5,19, 29, 40 or FZ (FLAME ZONE- over 50Kw m2 irradiation, 1200º c) regulation areas and meets the AS/3959 requirements, when used to protect timber framing, under AS/ 3837 materials. and major furnace test to BCA AS/1530.4-2014 (ALL TESTS RE ASSESSED NATA CSIRO 2025 / NCC).

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/ 3959 BAL FZ Flame Zone fire Zone Regulations). Must be fully primed and sealed with Klaas Si/ AquaCrunch before use. Please see sealing and painting manual .

NOTE: FCA ref, is FireCrunch Australia

FIRE TESTED BY CSIRO / BCA

ENVIRONMENTAL PROPERTIES
During the manufacturing process, in carbonation, FireCrunch draws back 90% of the CO2 used in maufacture it and makes it a virtually carbon neutral product. FireCrunch is 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 max 450mm centres. Must be kept under cover away from all weather conditions BEFORE USE AND SEALING, Klass AquaCrunch SI vapour permeable sealer. Always handle with at least one person at each end of the board. With hands apart, lift the board and tilt vertical to prevent sagging.

OCCUPATIONAL HEALTH & SAFTTY

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 a replaceable filter or disposable half respirator to avoid respiratory problems and wear long sleeved shirts and trousers to prevent skin irritation. Industrial safety glasses or nonf ogging goggles should also be worn.
WHAT TOOLS DO I NEED?
No special tools are required to use Firecrunch K Products. It can be sawn, drilled, screwed and planed just like timber.

CUTTING & MACHINING

FireCrunch K products are all easy to work and machine with normal wood working tools and equipment. Cut sheets with a fine tooth handsaw or power saw. Edges may be trimmed with a smoothing plane, power plane or light grade 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. Deep Score Snap 10mm and under.

GENERAL FIXING & INSTALLATION
RECOMMENDED BOARD THICKNESS USE

Board Thickness	Recommended Use	Edges
10mm , 12mm	Walls (internal and external), Ceilings	Square, Ship Lap
16mm and 19mm	External walls, floors, decks	Square, Tongue & Groove

INTERIOR/EXTERIOR LINING
Position fasteners a minimum of 50mm from corners and min. 15mm from edges. All facing surfaces must be finished with suitable and approved finishes. Stud adhesives should only be used for board positioning, not fastening. Use only TG board when tiling.

TIMBER FRAMING
General wall installation to conventional timber frame 90x45 MGP 10 frame construction in most locations: self countersink ribbed head bugle screws spaced 200mm centres and at panel edges (10mm and 12mm thick panels) 12mm to 15mm and intermediate framing nogs where required

STEEL FRAMING
General wall installation to conventional 20ga metal frame 92mm x 45mm construction in most locations: Use minimum No. 8-18 x 8.5mm HD x 25mm long ribbed bugle corrosion proof screws spaced 200mm centres (10mm and 12mm thick panels) and 12mm to 15mm from edges and 50mm from corners using stud centres at 400mm to accommodate the 1200m wide sheets (depending on use).

JOINT TREATMENT
Firecrunch SE10 panels can be fastened at abutting board edges and optionally covered by metal joiners, battens or with a compatible caulk. See the Firecrunch website for alternatives. firecrunch.com.au/recommended-products/

SCREWING
All screws must be corrosion proof (stainless steel recommended for external use). For screwing Firecrunch panels to timber framing, we recommend using 8-10 Countersunk Bugle Head Class 2 / 3 needle point screws (depending on timber hardness). DO NOT NAIL FireCrunch PRODUCTS. voids warrnty
Maximum depth between surface of screw head and surface of Firecrunch should not be more than 2.0/3mm (10 ,12,16 and 19mm

Recommended Screw Sizes

Board Thickness	Sc rew Length	Board Thickness	Screw Length
12mm & 10mm	30mm	16mm and 19mm	45-50mm

CALL TODAY 1300 933 102

INSTALLATION - K-DECK 16mm - Tongue & Groove size: 2700x600mm

FIXING NOTES - GENERAL
• Firecrunch sheets are to be fixed with the long side at right angles to the floor joists.
• Only use 16mm TG up to 450mm joist centres (max) for floor areas.
• 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. 15mm from edges and 50mm from the corners and at max 450 mm centres in the field of sheets.
• Fasteners should finish with the head 2/ 3mm below board surface. Firecrunch is strong but care should be taken not to damage the core or face.
• Fill exposed screw holes and seams before installing floor covering.

QUICK NOTES
SCREWS Timber Joists: • 45-50mm 8-10 Countersunk Bugle Head • Class 2 / 3 Needle Point screws

IMPORTANT :Use 16mm TG FK Deck on max 450mm joist centres.
• All FCA board must be pre sealed with with **AquaCrunch primer** sealer prior to painting and sealed before installation. The board must be totally dry before applying sealant. See recommended products web site

FLOOD PRONE AREAS
If you are installing floors in areas that are flood prone, you must PRE- seal the UPPER face of the Board ONLY use **AquaCrunch primer sealer** ,
first and it is recommended not to use adhesives to fix the board to the frame. Firecrunch does not retain water and will not swell so if a room has been flooded, the Firecrunch can simply be unscrewed and lifted to allow the board and frame to dry and repairs to be done and then screwed back into place and refinished.

Sizes available: 2700mm x 600mm

Use 19mm TG , Firecrunch panels for floors.
(see caution notes TG board max span 450mm)
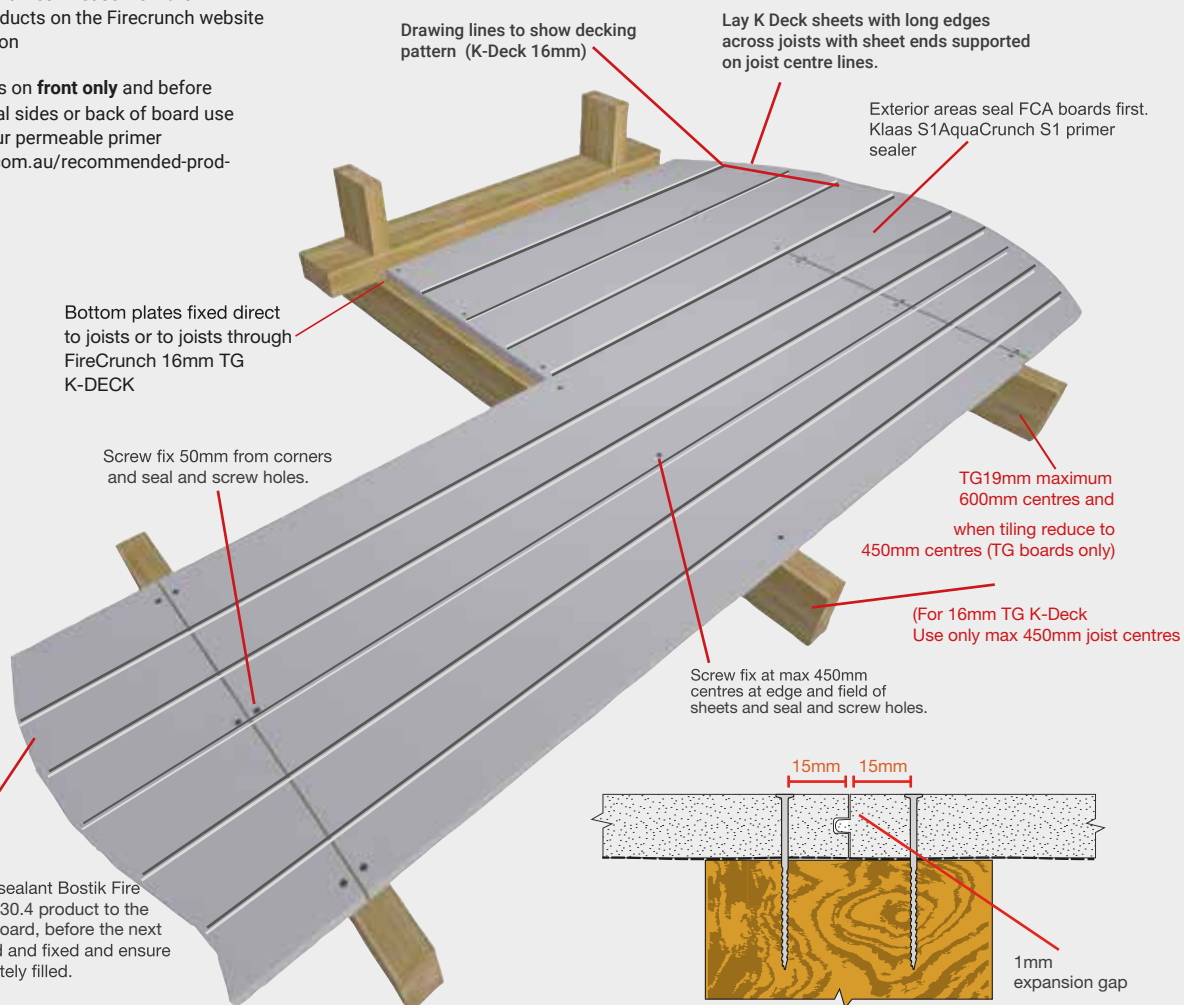NOTE :16mm TG DECKING , USE MAX 450mm joist centres

NOTE: For 16mm TG, K Deck floor joists to be at maximum 450mm centres

NOTE: Pre seal The boards on front only and before painting use AquaCrunch Klaas Si vapour permeable primer sealer.

RECOMMENDED FASTENERS
For wet area and exterior applications corrosion proof screws must be used especially when fastening to steel frames. Please view the recommended products on the Firecrunch website for more information

Pre seal the boards on **front only** and before painting do not seal sides or back of board use AquaCrunch vapour permeable primer sealer. frecrunch.com.au/recommended-prod-ucts.com.au/

Drawing lines to show decking pattern (K-Deck 16mm)

Lay K Deck sheets with long edges across joists with sheet ends supported on joist centre lines.

Exterior areas seal FCA boards first. Klaas S1AquaCrunch S1 primer sealer

Bottom plates fixed direct to joists or to joists through FireCrunch 16mm TG K-DECK

Screw fix 50mm from corners and seal and screw holes.

TG19mm maximum 600mm centres and
when tiling reduce to 450mm centres (TG boards only)

(For 16mm TG K-Deck Use only max 450mm joist centres

Screw fix at max 450mm centres at edge and field of sheets and seal and screw holes.

FILL fire /weather sealant Bostik Fire Ban or other AS1530.4 product to the grooved edge of board, before the next sheet is positioned and fixed and ensure the joint is adequately filled.

15mm   15mm

1mm expansion gap

NOTE: DO NOT NAIL FIRECRUNCH PRODUCTS/ VOIDS WARANTY

INSTALLATION - K-DECK 16mm - Tongue & Groove size: 2700x600mm

FIXING NOTES - INTERIOR/EXTERIOR - TONGUE & GROOVE

• Timber or steel framed floors are to be constructed strictly in accordance with the **Building Code of Australia and all relevant Standards.**
• Firecrunch FLOORING sheets are to be fixed with the long side at right angles to the floor joists. Only use 19 mm Flooring T&G board over max joist centres max 300 to 450mm.
Lay down first sheet and fire / weather seal by gunning in recommended multipurpose weather and **fire sealant (AS1530.4) into groove section.**
• Firmly hold the boards against the joists while fasteners are positioned and push tongue section of next board into fire / weather sealant filled groove, and fix that sheet and so on.
• The last insert may require a custom cut section ,measure this carefully before starting laying hand ,and press into position if there is no backing joist insert a back blocker to support and fill joint with **Fire/ weather sealant**
• Fasten min. 15mm from edges and 50mm from the corners fix at max 450 mm centres (FLOORING) in the field of sheets.
• Fasteners should finish with the head 2mm below the surface of the Flooring board
• Fill (Epoxy 2 pack) exposed screw holes and seams before installing floor covering

AquaCrunch Sealer + Undercoat + PAINTING : FireCrunch is a fire and finish board which delivers a top class finish for paint application, (INTERNAL / EXTERNAL) (WARRANTY) first ensure surface is dust free and clean, and under 10% moisture content (use moisture meter) seal with **AquaCrunch VAPOUR PERMEABLE sealer (interior and exteriors) , 2nd :** Then apply **Dulux** Precision MAX ADHESION undercoat, . **3rd** then apply regular **Dulux water based finish paints** or texture top coats. **4th:** • For NON SLIP floor and decking and surface wear protection use (Tread RITE) a clear non slip and protection product. All available from major hardware stores

DO NOT ALLOW FIRECRUNCH Boards to get WET or Hydrate over 10% BEFORE Sealing with AquaCrunch Sealer.

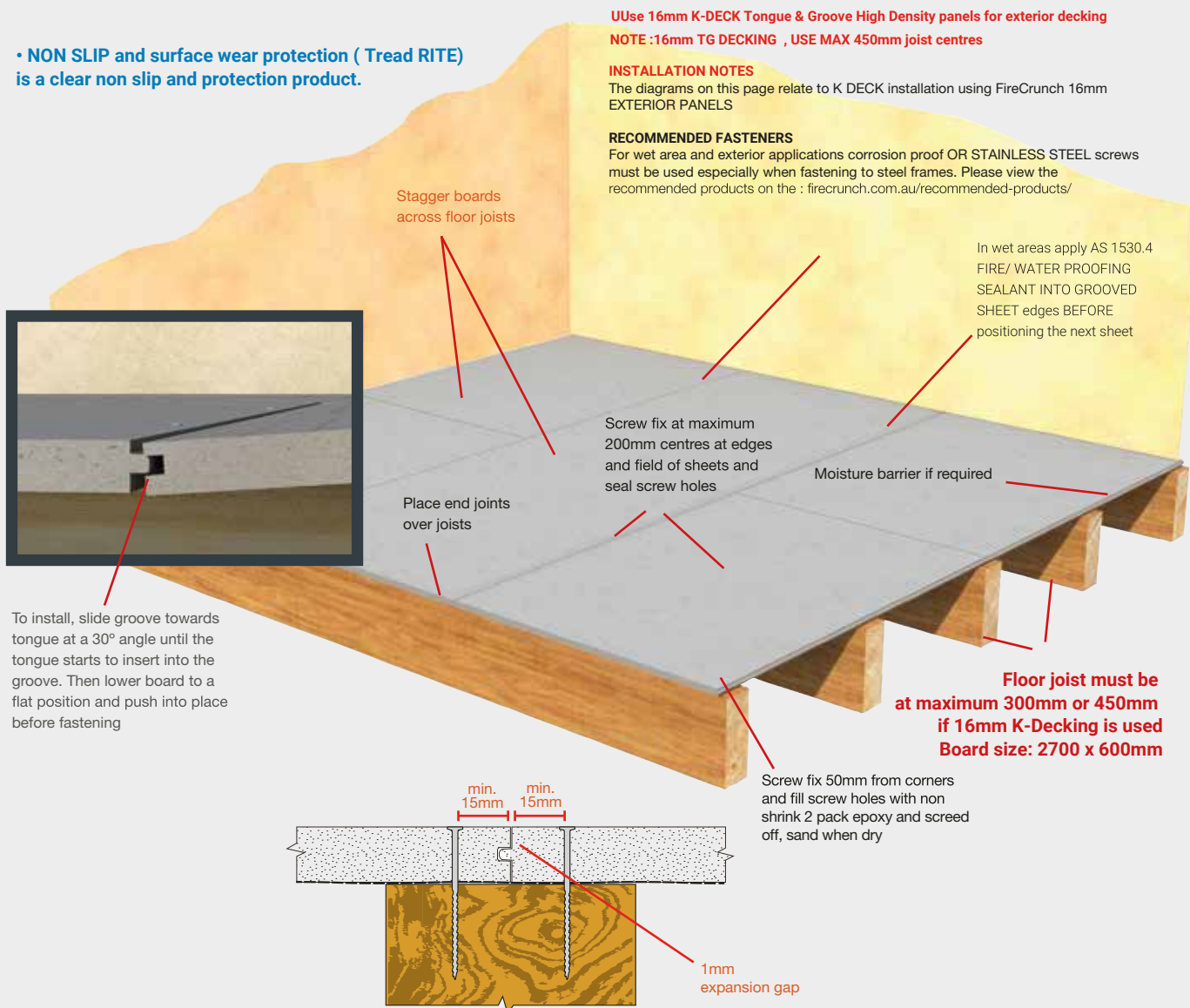• **NON SLIP and surface wear protection (Tread RITE) is a clear non slip and protection product.**

UUse 16mm K-DECK Tongue & Groove High Density panels for exterior decking
NOTE :16mm TG DECKING , USE MAX 450mm joist centres

INSTALLATION NOTES
The diagrams on this page relate to K DECK installation using FireCrunch 16mm EXTERIOR PANELS

RECOMMENDED FASTENERS
For wet area and exterior applications corrosion proof OR STAINLESS STEEL screws must be used especially when fastening to steel frames. Please view the recommended products on the : firecrunch.com.au/recommended-products/

Stagger boards across floor joists

In wet areas apply AS 1530.4 FIRE/ WATER PROOFING SEALANT INTO GROOVED SHEET edges BEFORE positioning the next sheet

Screw fix at maximum 200mm centres at edges and field of sheets and seal screw holes

Moisture barrier if required

Place end joints over joists

To install, slide groove towards tongue at a 30° angle until the tongue starts to insert into the groove. Then lower board to a flat position and push into place before fastening

Floor joist must be at maximum 300mm or 450mm if 16mm K-Decking is used Board size: 2700 x 600mm

min. 15mm   min. 15mm

Screw fix 50mm from corners and fill screw holes with non shrink 2 pack epoxy and screed off, sand when dry

1mm expansion gap

NOTE: DO NOT NAIL FIRECRUNCH PRODUCTS/ VOIDS WARANTY

FIRE TESTED BY CSIRO / BCA

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