

K-FLOOR 19mm TG TECHNICAL REFERENCE INSTALLATION

Size 2700x600mm



FIRE PROOF



FLOOD PROOF



IMPACT RESISTANT



TERMITE PROOF



MOULD & BACTERIA PROOF



NOTE: This is not a controlled document so may vary. The latest installation manuals can be downloaded from the FireCrunch web site. Please ensure you have the latest version from Manuals & Drawings before you start installation.

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-Floor 19mm 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 19mm TG flooring/roofing.

Australian Certification

- ★ BCA Volume One 2014: C1.8 Lightweight Construction, C1.10 Fire Hazard Properties and C1.12 Non-Combustible 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 Soffits Linings.
- ★ BCA Volume Two 2019: Part 3.7.1, Fire Separation for FRL, including state variations in SA. (Refer to limitation e).
- ★ BCA Volume Two 2019: Part 3.7.4, Bushfire areas to Part 3.7.4.0 and 3.7.4.1, incl. state variations NSW, Qld, SA, Tas.

Fire Properties

FireCrunch is totally non-combustible. AS1530.1 and smoke release AS3837. FireCrunch panels also meet the requirements of the following methods for fire tests on building materials.

- ★ AS1530.4 - Fire resistance test to building material - relative standard NATA/CSIRO.
- ★ AS1530.4 - Fire resistance test of elements of construction NATA/CSIRO.
- ★ AS1530.1 - Non-combustibility test for materials NATA/CSIRO.
- ★ AS3837 - Propagation, heat release and smoke release NATA/CSIRO.
- ★ AS1530.4 - Fire resistance test of elements of construction NATA/CSIRO.
- ★ AS1530.8.1 and 8.2 - Small and large flaming sources bush fires NATA.
- ★ AS3959 - Bush fire attack - Radiant heat at 50Kw/m² and small flaming sources.
- ★ AS1530.8.2 - Tests on elements of construction for buildings exposed to simulated bushfire conditions under (NCC) Alternative Performance Solutions (APS) Registered fire engineer assessment of test AS3959 NATA Resolute Labs Qld.
- ★ FireCrunch is applicable in BAL Low, 12.5, 19, 29, 40 or FZ (Flame Zone over 50Kw/m² irradiation, 1200deg C) regulation areas and meets the AS3959 requirements, when used to protect timber framing, under AS3837 materials and major furnace test to BCA AS1530.4-2014 (all tests reassessed 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.

Interior 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 Murobond MP primer before use. Please see sealing and painting manual.

Environmental Properties

During the manufacturing process, in carbonation, FireCrunch draws back 90% of the CO₂ used in manufacture 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 with Murobond MP primer. 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 & 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 a replaceable filter or disposable half respirator to avoid respiratory problems and wear long sleeved shirts and trousers to prevent skin irritation. Industrial safety glass or non-fogging 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 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 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

Board Thickness	Recommended Use	Edges
10mm, 12mm	Walls (internal & external), Ceilings	Square, Shiplap
16mm, 19mm	External Walls, Floors, Decks	Square, TG

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 countersunk 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 92x45mm construction in most locations: Use minimum No. 8-18 x 8.5mm HD x 25mm long ribbed bugle corrosion proof screws spaced 200mm centre (10mm and 12mm thick panels) and 12mm to 15mm from edges and 50mm from corners using stud centres at 400mm to accommodate these 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 [Recommended Products](#) for alternatives.

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 needlepoint screws (depending on timber hardness). **DO NOT NAIL FireCrunch** products as it voids your warranty. Maximum depth between surface of screw head and surface of FireCrunch should not be more than 2-3mm (10, 12, 16 and 19mm).

Recommended Screw Sizes

Board Thickness	Screw Length	Board Thickness	Screw Length
10mm, 12mm	30mm	16mm, 19mm	45-50mm

Fixing Notes - General

- ★ FireCrunch sheets are to be fixed with the long side at right angles to the floor joists.
- ★ Only use 19mm TG flooring 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. 450mm 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.

All FCA board must be pre-sealed with Murobond MP primer prior to painting and sealed before or immediately after installation. The board must be totally dry before applying sealant. See [Recommended Products](#) web site.

DO NOT NAIL FIRECRUNCH PRODUCTS/VOIDS WARRANTY

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 Murobond MP primer 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.

IMPORTANT:

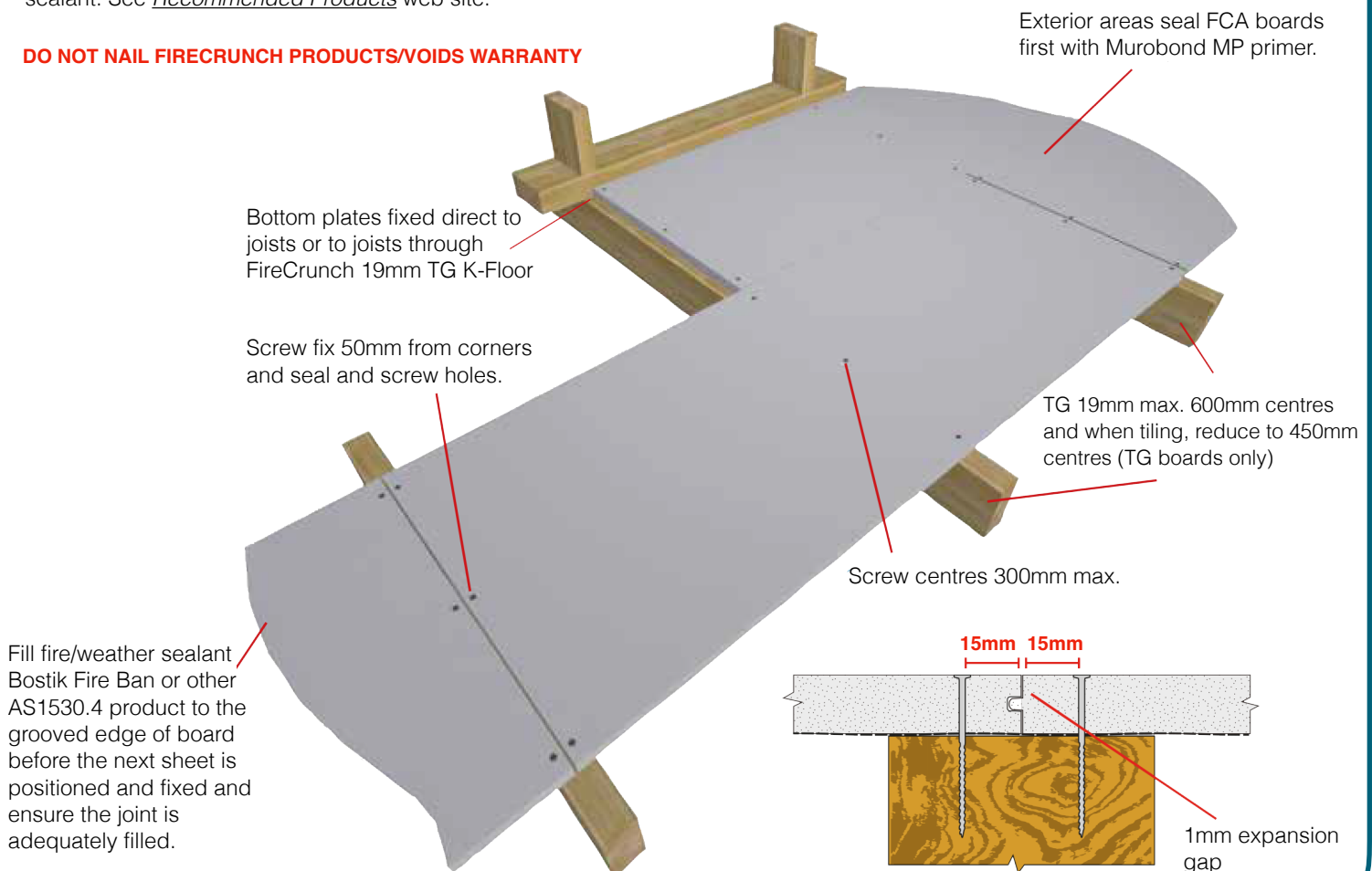
Use 19mm TG flooring on max. 450mm joist centres. Sizes available: 2700mm x 600mm

For 16mm TG, K-Deck floor joists to be at maximum 450mm centres. Pre-seal the boards on **front only** and before painting use Murobond MP primer. See [Recommended Products](#).

Use 19mm TG FireCrunch panels for floors.

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.



Fixing Notes - Interior/Exterior T&G

- ★ 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 joist centres max 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 etc.
- ★ 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.
- ★ DO NOT ALLOW FIRECRUNCH boards to get wet or hydrate over 10% before sealing.

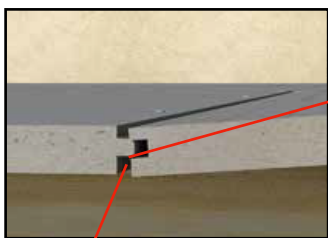
SEALER + UNDERCOAT + PAINTING OR RENDERING:



For both internal/external paint application. Failure to follow these procedures and use the specified products will **void the warranty**. See [Recommended Products](#) on web site.

- STEP 1 Ensure all surfaces are clean and dry to max 10% sheet hydration.
- STEP 2 Apply one coat of the **Murobond MP Primer**.
- STEP 3 After Murobond MP primer is dry to manufacturer's specification, apply the recommended **undercoat** for your finish top coat paint brand.
- STEP 4 Apply two coats of **water-based acrylic paint**.

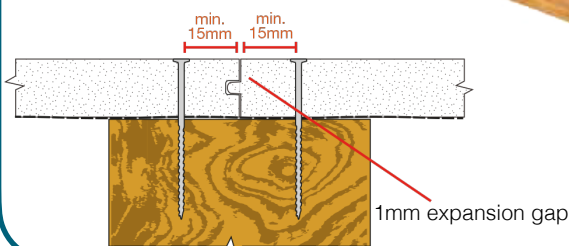
Murobond MP Primer is obtainable on order from FireCrunch Australia.



First gun in AS1530.4 fire/ weather sealant. See [Recommended Products](#)

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

DO NOT NAIL FIRECRUNCH PRODUCTS/VOIDS WARRANTY



Use 19mm K-Floor TG panels for exterior decking.
NOTE :19mm TG Decking, use max. 450mm joist centres.

Installation Notes

The diagrams on this page relate to **flooring** installation using FireCrunch 19mm TG 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 [Recommended Products](#).

