NTT

Still and Always..Newcastle

meyFC

INTERNAL > EXTERNAL SOLUTION

UPDATED SEPTEMBER 2024
FOR NCC 2022

meyFC

GENERATION 2

19MM

22MM

lightweight fibre cement flooring

SPECIFICATION AND USER GUIDE

Meyer TIMBER Victoria

Meyer TIMBER New South Wales

Meyer TIMBER Queensland

Meyer TIMBER Tasmania

www.meyertimber.com.au

STORAGE AND HANDLING

meyFC sheets must be stacked flat on bearers spaced at maximum 600mm centres. Material should be stored indoors or otherwise protected from the weather. Care is required during handling to prevent damage to the moulded tongue and groove profile, as well as chipping of corners of sheets. Ensure sheets are not excessively damp before installing or finishing.

WARNING - INHALATION OF SILICA DUST

meyFC sheets are not inherently harmful. The hazard exists when inhaling silica dust particles through processes such as cutting, breaking, drilling, grinding or sawing. Repeated exposure to dust when working with fibre cement sheets if respirable crystalline silica levels are not controlled could result in chronic lung disease. Any alterations to sheets should be done outdoors or in a well-ventilated environment using the right tools and dust collecting equipment. When working with sheets indoors, ensure good ventilation to keep the concentration of airborne dust to a minimum and at least below the workplace exposure standards. Do not dry sweep or use compressed air to clean off dust. Wear personal protective equipment that complies with Australian Standards. This includes gloves, goggles, and respiratory equipment with minimum P2 efficiency. For more information refer to the meyFC safety data sheet (SDS).

SAFETY DATA SHEET

CUTTING AND DRILLING

meyFC sheets can be cut and drilled using standard tools with Diamond or Tungsten Carbide tips, which can be found at all major hardware stores. Any tools used should be connected to a full dust extraction system to minimise the amount of airborne dust generated.

FASTENERS

Fasteners used for securing meyFC flooring should have a durability classification to match the final intended situation, taking note of location and exposure to corrosive elements such as sea spray or pool salt/chlorine. It is recommended to have a minimum Class 3 coating on fasteners used for decks and balconies. To reduce movement of sheets and protect waterproof membranes, Meyer Timber® recommends using screws to secure meyFC sheets to framing as follows:

	TIMBER JOISTS		METAL JOISTS
10g x 50mm long Type 17 Countersunk Rib Head Screw	DSDG50SA (Class 3) Quikdrive Screw WSV50SA (Zinc plated) Quikdrive Screw	10g x 40mm long Metal Winged Tip Countersunk Self-embedding head Screw	CBSDGL158SA (Class 3) Quikdrive Screw

Nails as noted below may be used when fixing into I-Joists, LVL, or solid timber if appropriate care is taken. Deformed shank nails will provide clamping force on the sheets, although not to the same extent as screws. Smooth shank or framing nails fulfill structural requirements but are not suitable when waterproof membranes are installed on top of meyFC flooring. Suitable nails include (alternate nails may be used if they are of the same dimensions and style):

Paslode 50 x 2.87 Amor Galvanised Dekfast Impulse Nail | Airco 50 x 2.5 Galvanised Ring Shank Coil Nail | 50 x 2.8 Galvanised Flat Head Twist Shank Nails (Loose)

FRAMING

meyFC can be secured to either timber or steel framing. Timber floor framing (seasoned solid joists or I-joists) must be a minimum of 42mm in width and sized in accordance with AS 1684, AS 1720, or manufacturers design software or span tables. Steel framing must be in accordance with the NASH standard, and be a minimum of 50mm in width and 0.75mm BMT (base metal thickness). Framing should also be specified to match the intended use with regards to durability, corrosion and termite resistance.

It is important to make sure that adjacent framing members are in the same plane to prevent undue stresses on the meyFC flooring. A suggested tolerance is to within 1.5mm/m. Framing can be inclined if required to create a fall, particularly on external decks and balconies.

SPECIFICATION

This product and installation guide does not cover all scenarios and is intended to be used in conjunction with other documents to develop a complete solution. It is the responsibility of the specifier to ensure the details in this guide are suitable for the final intended application and that any areas which are not included in this guide are suitably addressed.

All design, specification and construction using meyFC must comply with the relevant sections of the NCC (National Construction Code) as well as other applicable regulations and standards.

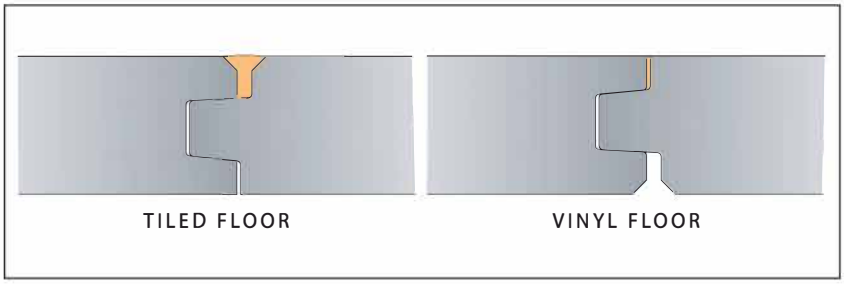

Figure 1: meyFC sheet orientation

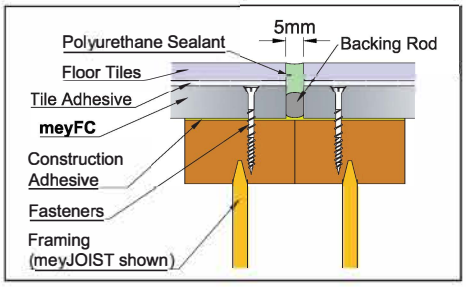

Figure 2: Control Joint

INSTALLATION

STEP 1: Sheet layout and orientation

meyFC sheets are to be installed across the floor joists with a recommended staggered (brick) pattern. Minimum sheet length and width are to comply with meyFC Technical Specifications in Table 2, and the short edge of the sheets must be fully supported with at least 20mm bearing. For tiled applications the tongue and groove notch should face up, and for vinyl floor coverings the tongue and groove notch should be facing down as shown in Figure 1. Choose sheet starting position to minimise cutting of sheets and locate floor framing members to match sheet ends. For large areas of meyFC flooring, control joints are required at maximum 5.4m centres for internal applications and 4.2m centres for external applications. See Figure 2 for control joint detail. meyFC may be laid in an alternative square (stack) pattern for residential external applications, utilising control joints at sheet ends (maximum 2.7m centres). For square pattern commercial applications, approval should be sought from the project engineer as additional diaphragm bracing may be required.

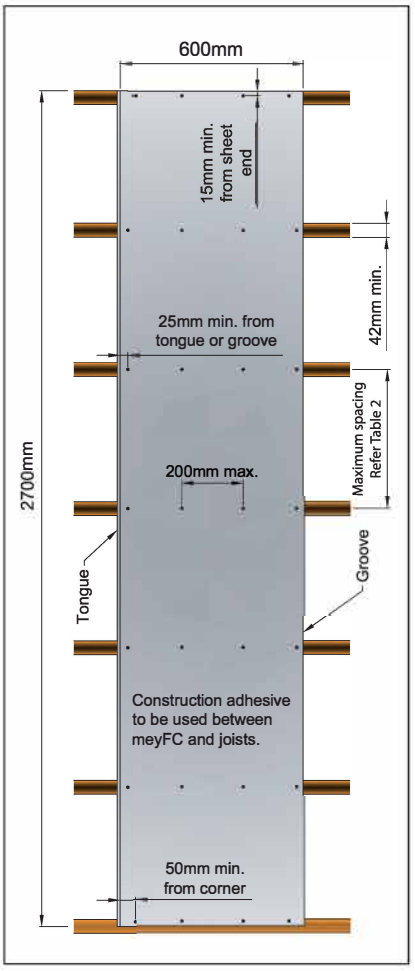

Figure 3: Fastener Layout

STEP 2: Installing first sheet

Before laying the first sheet a 10mm continuous bead of construction adhesive must be applied along every joist and in tongue and groove joints. Adhesive should be compatible with fibre cement flooring and joist material, such as HB Fuller Fulaflex 620 or Floorbond XMS (for both timber and steel joists). Once the first sheet is placed into position it must be secured with fasteners as noted in this guide, located as per Figure 3. To allow ease of installation of the next sheet, fasteners adjacent to the tongue and groove can be installed later.

STEP 3: Install next sheets

Continue installing sheets along the run as noted in Step 2. Ensure there is a 2mm (internal) or 5mm (external) gap between the ends of sheets. Gaps are sealed as outlined in Step 5 with those over 5mm requiring backing rods in addition to flexible sealant. At sheet ends a bead of construction adhesive is required under each sheet.

STEP 4: Fix next runs of sheets

The 2nd run of sheets requires a shorter starting sheet if laying in the recommended brick pattern. Once sheets are installed the tongue and groove fixing on the previous run of sheets can be secured. Continue in this fashion until the entire area has been covered. It is suggested to provide a light gauge steel angle trim (min. 30 x 30 x 1.0 mm) to the leading edge of the fibre cement sheets at exposed edges like the top of stairs.

STEP 5: Sealing the floor

Once all sheets have been installed check that screw heads have been embedded slightly below the finished surface. All joins and tops of screw heads must be fully sealed with an external grade polyurethane sealant such as HB Fuller Fulaflex 620 or Fulaflex 550LM to create a waterproof platform. Note the manufacturers recommendations on sealant curing time before applying final finishes. If there is a delay in applying final finishes and waterproofing systems, the sheets should be protected from damage or the possibility of exposure to water ponding.

FINISHING

Depending on the location of the meyFC lightweight fibre cement flooring and the intended final application, waterproofing membranes and/or tile screeds may be required underneath final flooring which could be tiles, direct stick vinyl, or other engineered floors. There are many different waterproofing systems that are suitable for use over the top of lightweight fibre cement floors; the designer/specifier should consult with the system provider to assess the appropriateness of the proposed solution.

Waterproofing of finished meyFC fibre cement floors for internal wet areas shall be done in accordance with the NCC (National Construction Code) and AS 3740 using membranes which comply to AS/NZS 4858 and are compatible with fibre cement material. Provide a bond breaker tape over sealant joints in the floor and at wall junctions.

Waterproofing of finished meyFC fibre cement external floors shall be done using membranes complying with AS 4654 Part 1 that are compatible with fibre cement, and installed in accordance with AS 4654 Part 2. Provide a bond breaker tape over sealant joints in the floor and at wall junctions. Control joints in the floor shall be expressed through floor tile systems.

meyFC has been tested with major external waterproofing companies and approved specifications are available. These can be found by scanning the QR code at the back of this guide or visiting the meyFC product page.

meyFC is a lightweight fibre cement flooring sheet suitable for both internal and external applications in residential and light commercial buildings. Being water-resistant, it is a perfect substrate for use in wet areas and in balconies and decks.

meyFC PRODUCT DESCRIPTION - Table 1

	Width (mm)	Length (mm)	Thickness (mm)	Mass (kg)	Sheets per pack	Edge Colour
	600	2700	19	36.7	40	
	600	1800	22	32.2	40	
QLD ONLY	600	2400	22	42.9	40	

Notes:
1. Long edges have a moulded tongue and groove profile.
2. Mass is based on equilibrium moisture content at density of 1160kg/m^3.

meyFC TECHNICAL SPECIFICATIONS - Table 2

Application	Maximum dead load (kg/m^2)	Maximum live load	Maximum support spacing (mm)		Minimum sheet length	Minimum sheet width (mm)
			19mm thick	22mm thick		
General residential	150	2kPa/1.8kN	450	600	2 joist spacings	200
Offices and classrooms	125	3kPa/2.7kN				
Multi-res common balconies and roof terraces	125	4kPa/1.8kN				
Multi-residential corridors and hallways	125	4kPa/4.5kN	300	360	4 joist spacings	300

Notes:
1. Typical applications listed above. For other uses, contact project engineer for advice.

meyFC is manufactured and tested to meet the requirements of AS/NZS 2908.2 Cellulose cement sheets – flat sheets. They are classed as Type A, Category 3. Other properties of meyFC sheets include:

- Structural Adequacy to NCC 2022 (V1 Clause B1P1 & B1P2, V2 Clause H1P1).
- Unaffected by termites.
- Non-combustible (NCC 2022 V1 Clause C2D10, V2 Clause H3D2).
- Durable (AS/NZS 2908.2 Clauses 6.2, 6.3, 6.4, 6.6).

FIRE HAZARD PROPERTIES:

- Critical radiant flux > 4.5kW/m^2
- Smoke development rate < 750 %min
- Flammability index = 0
- Spread of flame index = 0
- Heat evolved index = 0
- Smoke-developed index = 1

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INTERNAL > EXTERNAL SOLUTION

WATERPROOFING

WEBSITE

COMPLETE FLOOR SOLUTIONS BROCHURE

meyFC PRODUCT PAGE

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