

ReGen
BUILDING SOLUTIONS



DekFloor

PRODUCT INFORMATION AND INSTALLATION GUIDE

BUILDING BETTER WITH MEGA

Made in Australia



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DekFloor PRODUCT INFORMATION

Welcome to DekFloor, a new and innovative product from ReGen Building Solutions, a wholly Australian owned and operated business.

DekFloor is an innovative flooring substrate suitable for use in Class 1 – 10 building applications.

With a unique tongue and grooving joining system on all four edges, DekFloor provides a structural flooring substrate that can be applied to both timber and steel joists.

DekFloor is ideal for wet areas and external applications such as balconies and verandahs due to its moisture resistance and can be used as an alternative to traditional fibre cement sheeting products.

DekFloor is ideal for carpets, linoleum, and tiles.

DekFloor is the ideal step-down when using [XL-Floor](#) in the main house application.

DekFloor is water resistant, non-combustible, does not promote mould and mildew, and is termite resistant.

DekFloor is hygroscopic allowing the building to breath. This allows water vapor to pass through so they never rot because they temper and regulate indoor air humidity and expel moisture, hence they are mould and mildew proof and effect healthy comfortable air quality.

DekFloor is manufactured with a Magnesia Cement. Magnesia Cement Boards (MCB) require on 20 – 40% of the energy required to manufacture Portland Cement boards.

Portland Cement based products constitute about 5 – 20% of anthropogenic global CO₂ emissions or man-made carbon dioxide whereas Magnesia Cement Boards reabsorb CO₂ as they cure reducing the carbon footprint of a building. It is an accepted fact that to production of 1 tonne of Portland Cement creates approximately 1 tonne of CO₂ emissions.

“DekFloor is fully recyclable and fully sustainable”

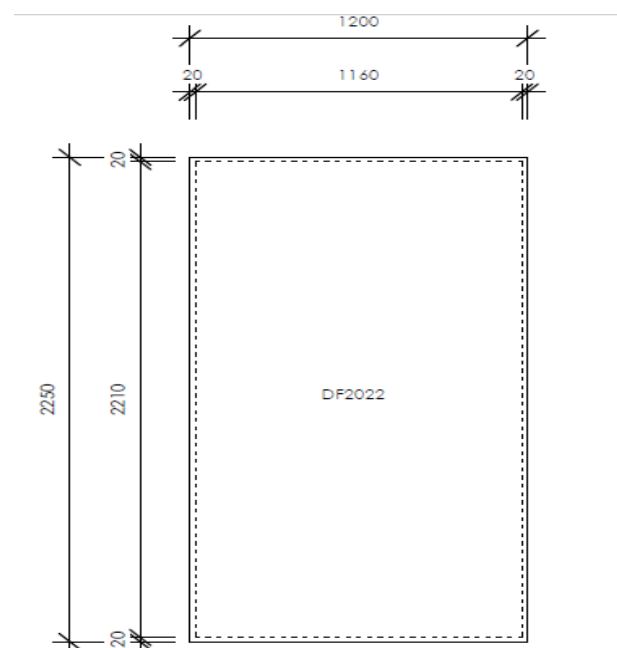
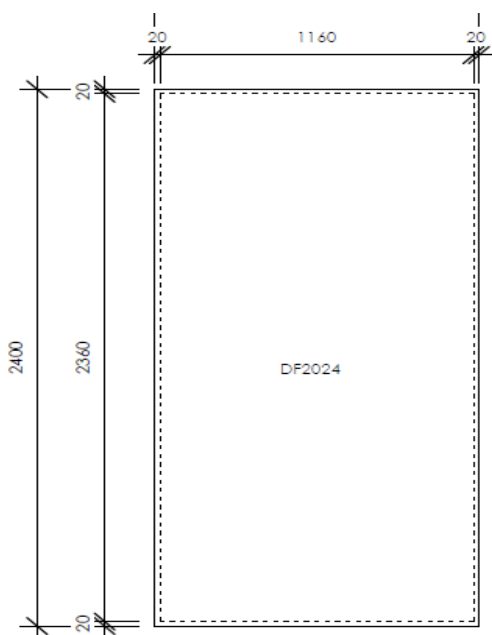
The cook-out process of making Magnesia based cement is about half the temperature of Portland Cement which produces 50 – 80% less CO2 yet the cement matrix is up to 12 times stronger which reduces the amount of cementitious materials used since one can effectively add organic substances to the mix without weakening the matrix. This is by far a more efficient process.

DekFloor does not off gas VOC's and does not need priming agents to gain a superior bonding surface.

PANEL SIZING

DekFloor is available in 2 different panel sizes:

- DF2022 2250 x 1200 x 20mm 57.6kg
- DF2024 2400 x 1200 x 20mm 61 kg



AUSTRALIAN STANDARDS

DekFloor has been tested at Australian NATA laboratories to ensure compliance with National Construction Codes building specifications.

DekFloor has been tested in accordance with in-house method LOP-002 Asbestos Identification by Polarised Light Microscopy including Dispersion Staining (Based on AS4964-2004 Method for the qualitative identification of asbestos in bulk samples).

- AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings. Determination of the Burning Behavior using a Radiant Heat Source.
- DekFloor was reported to have a 0 Critical Heat Reflux and 0 Smoke value.
- AS4964-2004 Method for the qualitative identification of asbestos in bulk samples- DekFloor contains no asbestos material
- ASTM C518-2010 Steady-State Thermal Transmission Properties by Means of the Heat Flow Apparatus
- Measured Thermal Conductivity 0.1278 0.1271 W/m.K
- Thermal Resistance 0.2 m²K/W
- AS/NZS 2908.2 Testing of 20mm Laminated Megaboard for Bending Strength (MOR) & Deflection (MOE).

SPAN TABLE

The design values of MOR and MOE, established by these procedures, have been applied to generate span tables for 20mm Laminated Megaboard considering the Ultimate Limit State (ULS) and Serviceability Limit State (SLS) loadings of AS/NZS 1170.1:2002, Table 3.1 for Self-contained dwellings (1.5kPa uniformly distributed actions and 1.8kN concentrated actions).

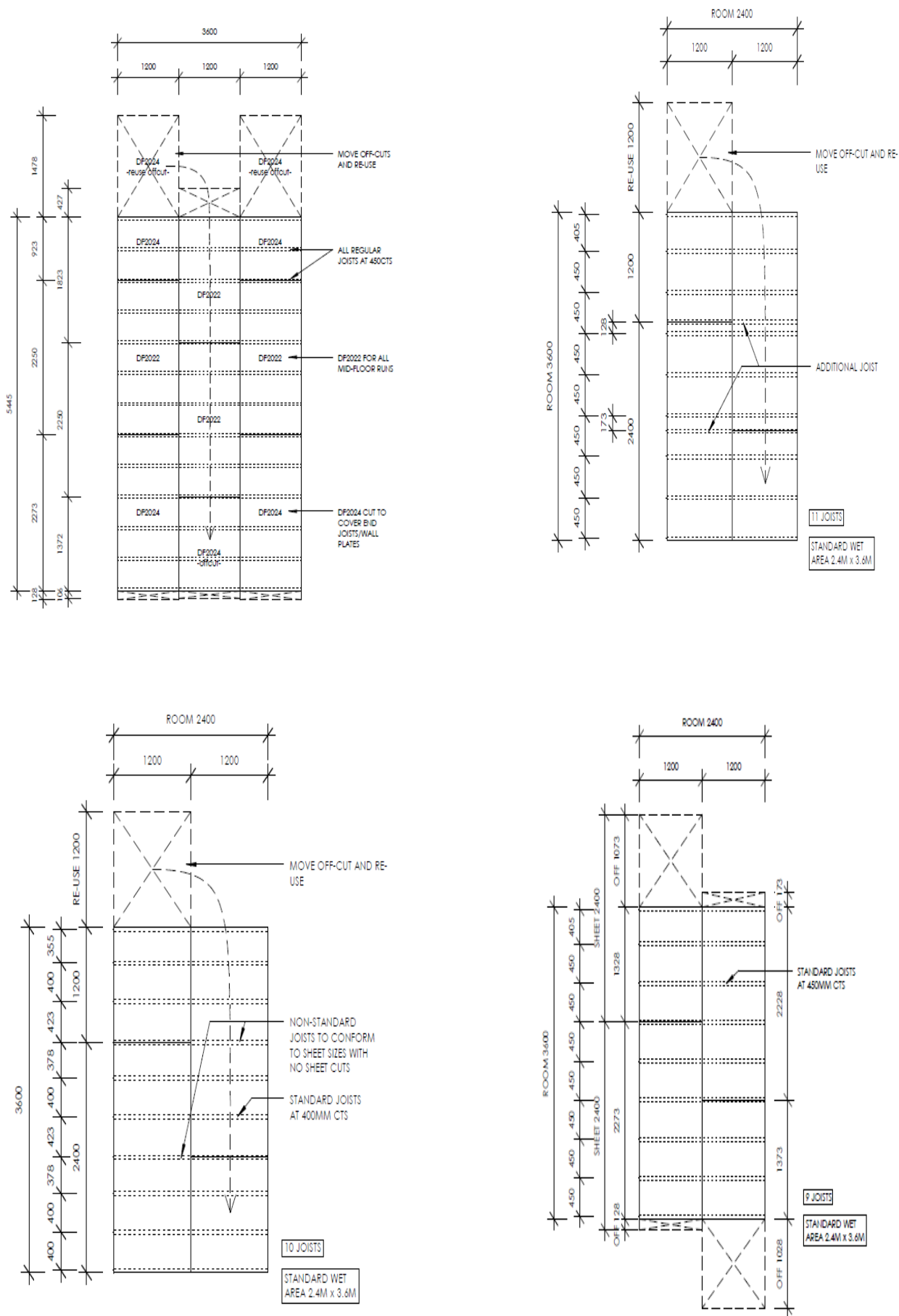
In all cases it is assumed that 20mm Laminated Megaboard shall only be installed where the length (defined as the long edge of the original panel) of any board shall span 'across' at least three (3) joists.

The results of this analysis are presented in the table below.

20mm Laminated Megaboard: Imposed floor actions (Q) – Uniformly Distributed Actions (kPa) & Concentrated Actions (kN)										
Joist Span (mm)	UDL, Q (kPa)					Point Load, Q (kN)				
	Span/150	Span/200	Span/250	Span/300	Span/400	Span/150	Span/200	Span/250	Span/300	Span/400
450	11.53	11.53	11.53	11.53	9.12	1.80	1.80	1.80	1.65	1.24
600	6.48	6.48	6.16	5.13	3.85	1.80	1.39	1.11	0.93	0.70
Limited by deflection ($G+\psi_s Q$), where $\psi_s=0.7$, and G is self-weight										
Limited by strength ($1.2G+1.gQ$), where G is self-weight										
Deflection limit requirements specific to a particular application must be confirmed prior to specification of 20mm Laminated Megaboard										

All Reports Available on Request

FLOOR LAYOUT OPTIONS



INSTALLATION PROCEDURE







This guide describes the use and application of DekFloor for use on timber and light steel frame construction in accordance with testing conducted by independent engineering facilities.

TOOLS

Only basic carpentry tools are required for the install of DekFloor panels.

- Construction adhesive
- 8g x 57mm CSK ribbed head EP screws
- Hammer or mallet
- Impact driver or drill
- Stringline or chalk-line
- Circular saw
- Pencil

All adhesives recommended have been tested by the suppliers on MEGABOARD. Details are available with test results on our website.

	Cordless driver
	Tape measure
	Mallet or hammer
	Pencil
	Chalk line reel
	Circular saw

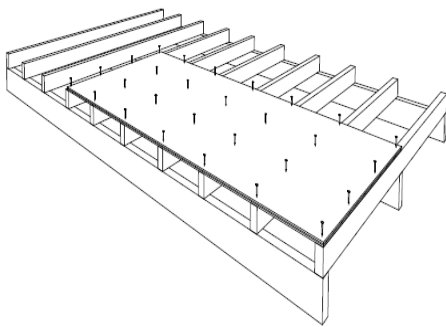
STEP 1

- 1.1** Firstly, ensure that your worksite is safe, with temporary work platforms available to work from. Working from open joists is bad construction practice and can be dangerous.

Everyone deserves to go home from work every night safe, healthy and happy.

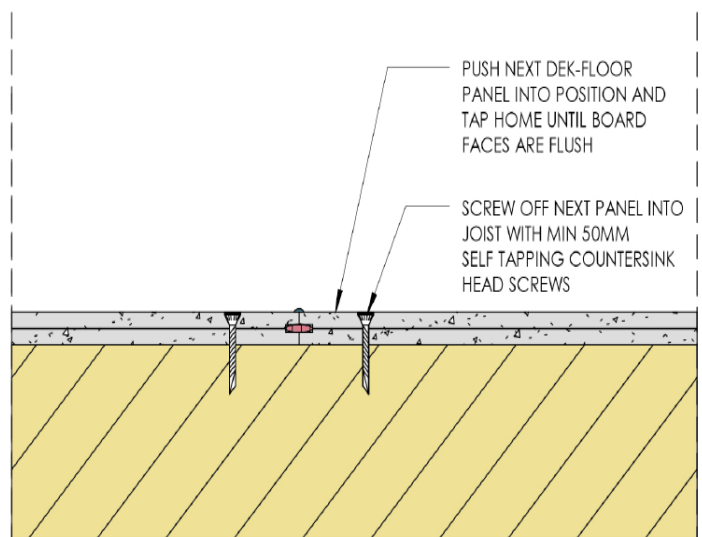
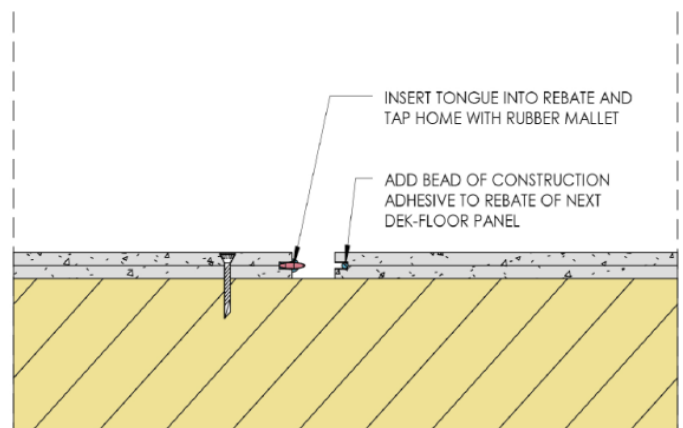
- 1.2** Start from a corner of the room with existing walls, and cut a long panel (DF2024) to run from the wall to the furthest available joist. The cut end of the sheet must be against the wall with the recess visible around all exposed edges.

Ensure that the length of the sheet places the end over 50% of the joist. Sheets must have minimum 22mm bearing at ends.



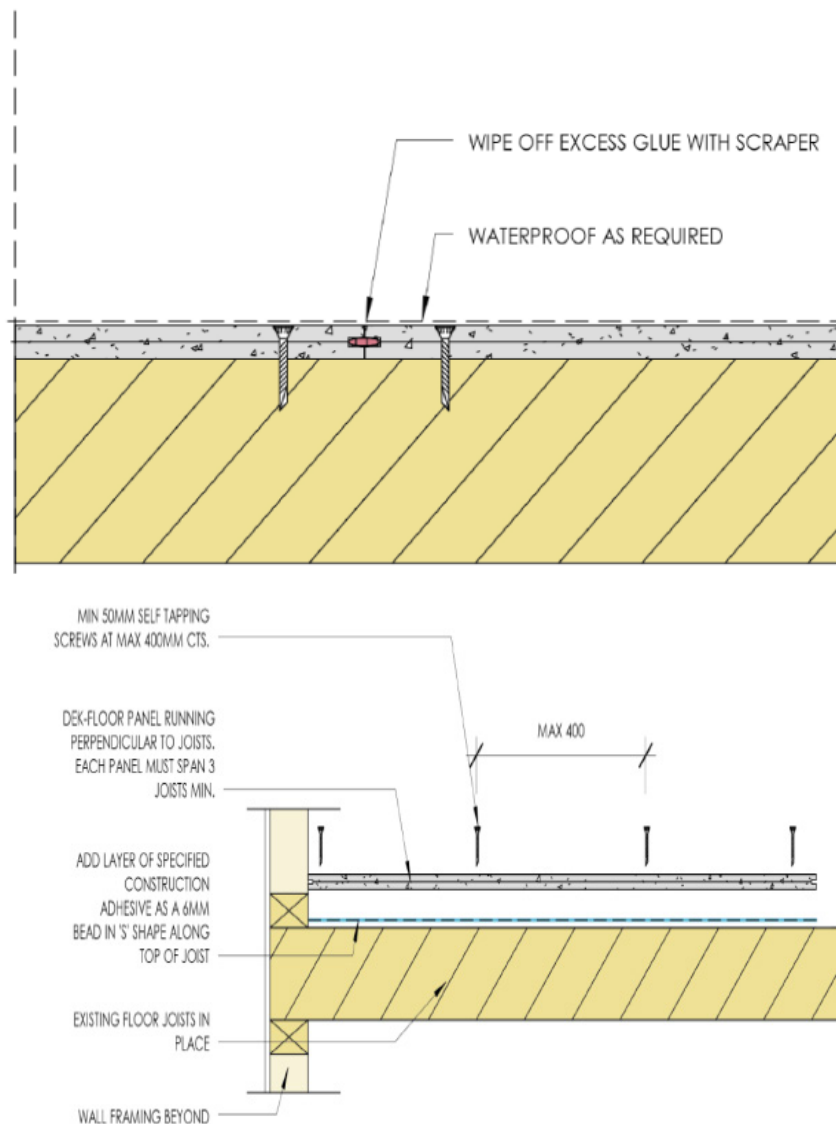
- 1.3** Apply the construction adhesive as directed. It is very important that this is undertaken as it will ensure a strong corner as the adhesive cures. The adhesive should be applied as a 6mm bead in an 'S' configuration along the length of the joists, and covering the full area the panel is to rest on.

- 1.4** Place the cut DF2024 into position, ensuring that the cut edge/corner of the panel is firmly pressed into the corner. You should notice that the edges of the panel are flush with the existing walls.
- 1.5** N.B. it is critical to ensure that the length of the board being used is perpendicular (running at right angles) to the span direction of the joists.



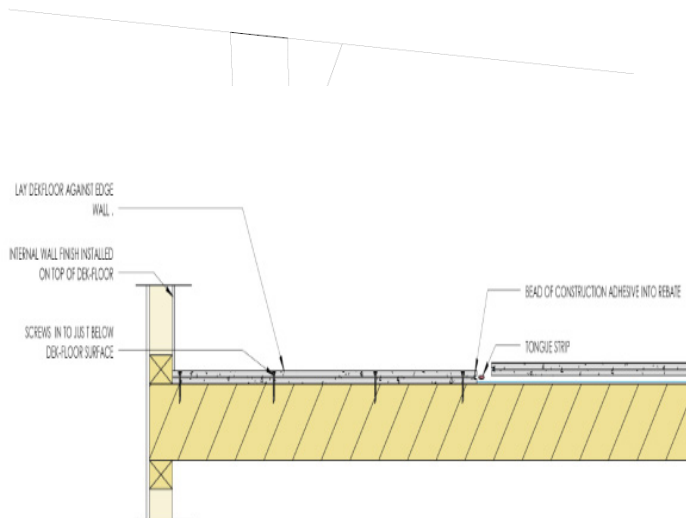
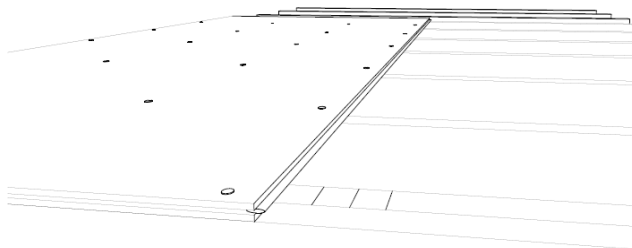
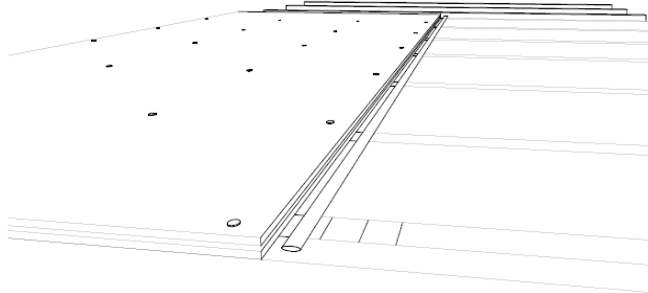
STEP 2

- 2.1 Using a ruler or straight-edge, mark with a pencil the line of all of the supporting joists. At equal thirds along each joist line, mark three points, nominally 300mm from each other. These will become the points for the screw insertion. Screws cannot be greater than 400mm from each other.
- 2.2 Using a drill or impact driver screw into the joists below at the marked locations.
- 2.3 Ensure that the head of the screw is flush with, or fractionally below the surface of the DekFloor sheet to ensure there is no disruption in the laying of the flooring.
- 2.4 Apply a bead of adhesive to the internal (female) recess along the edges of the panel.
- 2.5 Using gentle persuasion, slide the Tongue Strip into the short and long edge of the panel. Ensure that the tongue is inserted fully.

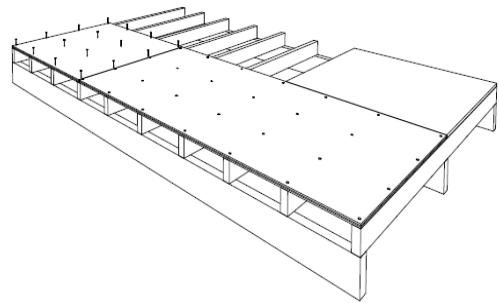


STEP 3

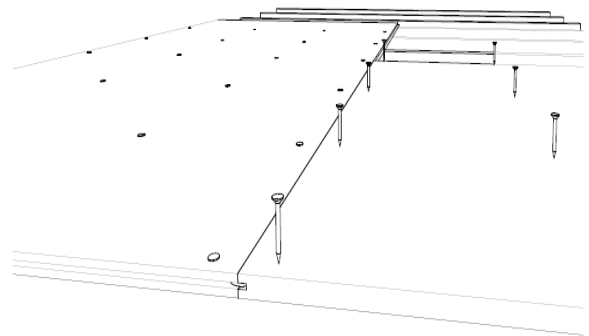
- 3.1** Get the next panels that you will be laying along a wall, either a cut down DF2024 or a full DF2020.
- 3.2** Using construction adhesive, apply the required bead over the joists that will be supporting the new panel.
- 3.3** Apply the adhesive to recess (female) that will be accepting the Tongue Strip.



- 3.4** Slide the panel into place, using some gentle persuasion if required. N.B. It is critical that care is taken not to damage the edge of the panel and that the recess is clear of debris or dirt that may have accumulated. Failure to clean the recess may result in the boards not fitting together flush.



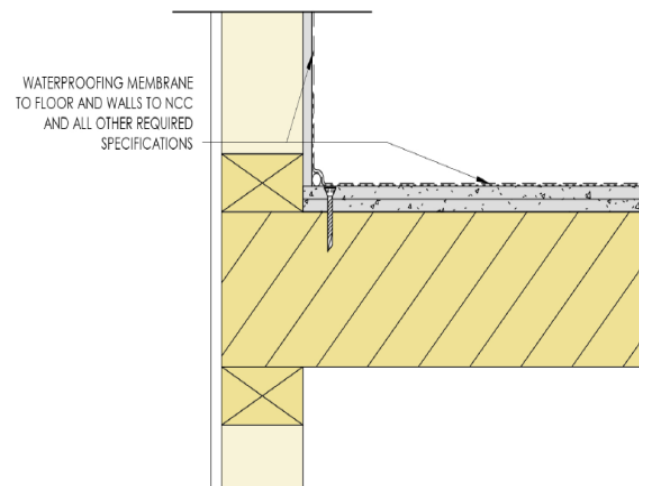
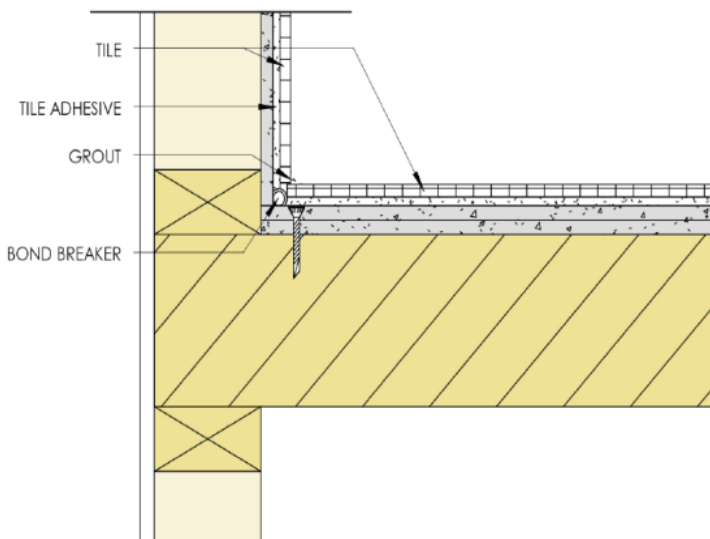
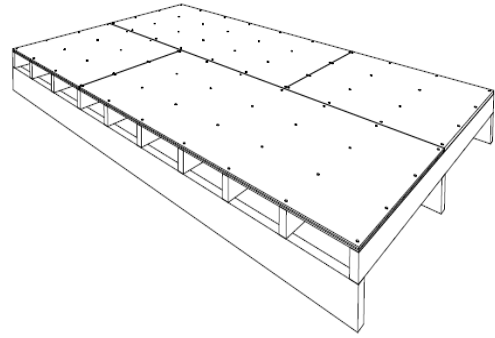
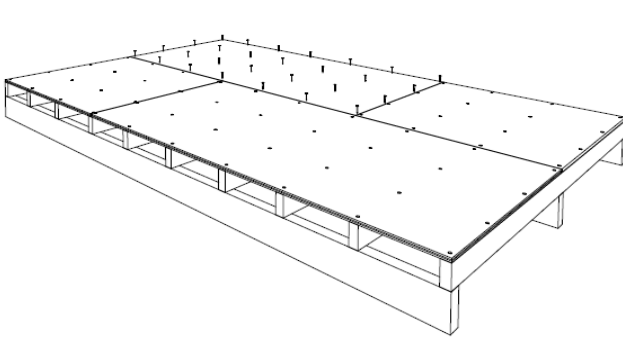
- 3.5** N.B. Boards need to be staggered lengthways, so when a DF2024 is put in place next to the corner panel it will need to be cut back using a circular saw to approximately half the length, allowing a stagger.



STEP 4

4.1 Fix with specified screws and repeat the process moving out from the corner.

Ideal fasteners 8g x 57mm CSK ribbed head EP screws are available from ReGen Building Solutions.

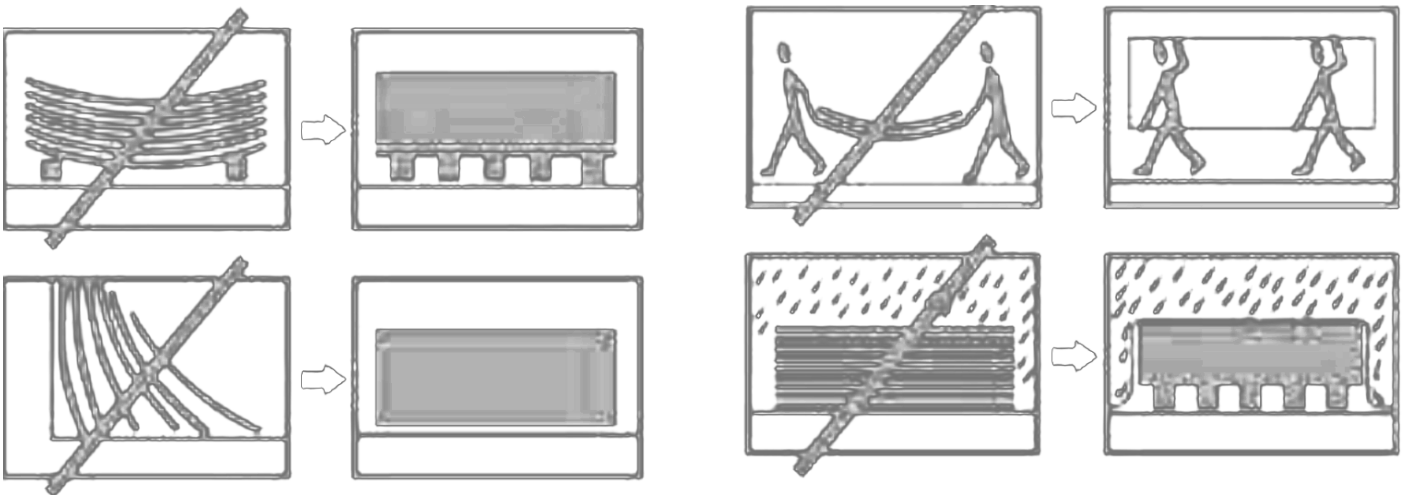


SAFE WORK PRACTICES

- Do not breathe dust and cut only in a well-ventilated area.
- When cutting boards with power tools avoid cutting in an enclosed area.
- Wear safety goggles with side shields.
- If cutting boards in an enclosed space wear P1 or P2 respirator.
- Wear long shirt and long pants to reduce potential skin irritation.
- Wear gloves to reduce possibility of cutting hands when handling boards
- Wear safety footwear as per Australia Standards.
- During clean up use wet clean-up methods or HEPA vacuum.
- Refer to website for Safety Data Sheet.
- Panels should be carried by 2 people on edge and safe manual handling procedures should be followed.

STORAGE AND HANDLING

To minimise product damage products supplied by ReGen Building Solutions should be stored where possible with the edges and corners of the panels protected from accidental damage. When storing, place on bearers or other structurally sound supporting system off the ground. Ensure panels are placed horizontally flat, under cover.





WARRANTY

ReGen Building Solutions (manufacturer) warrants to the original purchaser of DekFloor (Product) that Product is subject to the Conditions of Warranty below. ReGen Building Solutions will provide a 15-year warranty when installed in strict accordance with this document and all other Australian Codes and Standards.

a) The warranty period will be for a period of 15 years from the date of purchase. DekFloor will be free from defects due to defective factory workmanship or materials and are of merchantable quality and are solely for the purpose prescribed for the DekFloor System.

b) For a period of 15 years from the date of purchase DekFloor will be resistant to cracking, moisture, rotting, fire and termites. Note: Cracking does not include where the board is subject to loads beyond the loads indicated in the approved building system or within this document.

c) For the purpose of this warranty a defect in respect of the product means it does not comply with: - • AS/NZ 2908 2:2000 Cellulose-cement products – Flat sheet.

ReGen Building Solutions warrants to the purchaser of the product for 15 years from the date of purchase that the DekFloor System will remain fit for purpose provided it is installed in accordance with this guide and build system provided by RegGen Building Solutions or its distributors and issued through the manufacturer.

LIMITATIONS OF LIABILITY

- I. ReGen Building Solutions will not be responsible for breach of warranty unless the purchaser provides proof of purchase and makes a written claim at the address provided below, either within 30 days after the defect became reasonably apparent, or if the defect was reasonably apparent prior to installation.
- II. The product is subject to natural variation in the manufacture process. The purchaser must ensure the product meets aesthetic requirements before installation. ReGen Building Solutions is not responsible for claims that are made that could have been reasonably assessed prior to installation.
- iii. This warranty is not transferable to any other party (other than through an Approved Distributor) than the purchaser.
- iv. DekFloor must be installed in strict accordance with the design specification provided in the literature current at the time of the installation. Copies of the literature can be provided by Approved Distributors of the Product or from the supplier's website.
- v. ReGen Building Solutions shall not (except as provided for in this warranty) be liable for any direct, indirect or consequential loss or damage which any user suffers, incurs or is liable for in connection with the supply of ReGen Building Solutions products.
- vi. ReGen Building Solutions shall not (except as provided for in this warranty) be liable for any direct, indirect or consequential loss or damage which any user suffers, incurs or is liable for that exceeds the cost of any one of the remedies described herein.
- vii. No other warranty, term, condition or representation is made or implied and all are excluded to the fullest extent legally possible.

viii. None of the above warranties:

- a. Apply to any of the components which are not supplied by ReGen Building Solutions. The Approved Distributors may at their own discretion provide a third party warranty or, assist the purchaser to make any bona fide claim upon the manufacturer or supplier of any such component that the manufacturer or distributor-tor considers reasonable.
- b. Relate to the DekFloor System which have not been stored or maintained in accordance to any published guidelines including documentation, training manuals or other information relating to the system that was supplied to the purchaser or was made known to the purchaser.
- c. Apply to any part of the DekFloor System which is damaged in anyway as a result of transport or handling.

ix. The DekFloor System has been designed to be used in conjunction with only those components that are manufactured, sold or recommended by the manufacturer or Approved Distributor for use with the DekFloor System. To the fullest extent possible, all warranties given by ReGen Building Solutions exclude and do not cover defects in faults of, damage to, and/or the failure (in whole or in part) of any components of its (Failure) wherein the sole judgement of ReGen Building Solutions, such failure arose from misuse, negligence, accident, failure to use approved components, unauthorised modification, improper use, storage or handling, faulty installation or tampering by the purchaser or any third party.

Claims should be made in writing to:

AR Building Solutions Pty Ltd
16-20 Millers Road
Wingfield SA 5013

IMPORTANT NOTES

1. DekFloor means the flooring system and components as described in applicable documentation provided by the Manufacturer either in manuals and/or guides or information on the company's website or Approved Distributors website as they refer to the DekFloor
2. This product is suitable for linoleum, tiling, floating floor and carpet surface application.
3. DekFloor is suitable for internal and external applications.
4. Failure to install in accordance with the installation manual or in accordance with the relevant building regulations may affect the DekFloor system performance and void the warranty.
5. Purchaser means the beneficial owner of the property at the time the DekFloor was installed on that property.
6. DekFloor is the system provided to the purchaser and supplied either directly or through an Approved Distributor.
7. Please ensure you have the latest copy of the Technical and Installation guide. Please visit ReGen Building Solutions website or call us on (08) 84640199

Disclaimer

Every effort has been made to ensure that the information contained within this document is correct at the time of issue. ReGen Building Solutions reserves the right to change the specifications of all products referred to in this document at any time. Changes made are uploaded on to the ReGen Building Solutions website.

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