fermacell®

Flooring Solutions





Why fermacell®?

Enhance your project with fermacell® floor, the engineered dry screed overlay system optimising both acoustic and thermal performance.

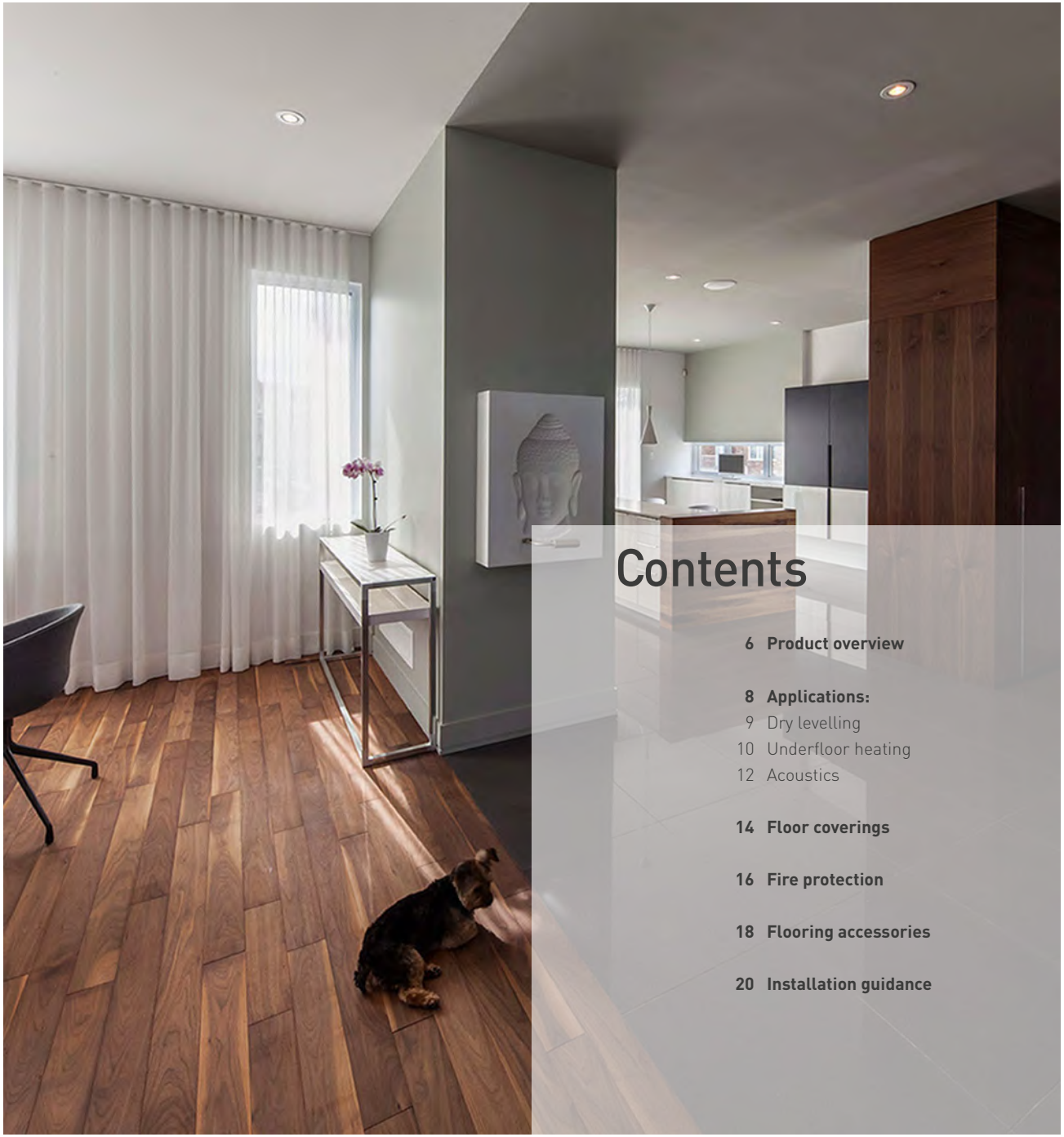
Made from advanced material gypsum fibre, fermacell building products deliver the ultimate in quality, durability and innovation.

Our flooring solutions offer a practical and cost effective alternative to wet screed, whilst also providing excellent thermal conductivity and acoustic isolation properties. Using fermacell flooring saves on build-up height and drying time when compared to traditional building materials.

Boosts underfloor heating
Minimal thermal resistance to strengthen the performance of underfloor heating systems.

Enhances acoustic performance
With wood fibre acoustic technology to improve sound isolation.

Quick to install
Interlocking for easy install. No lengthy drying times and ready to work on the next day!



Contents

6 Product overview

8 Applications:
9 Dry levelling
10 Underfloor heating
12 Acoustics

14 Floor coverings

16 Fire protection

18 Flooring accessories

20 Installation guidance

Product overview

fermacell® dry flooring systems offer a quick and easy to install, twin layered interlocked floating floor which can be used in a variety of applications.

Offered in three thicknesses: 20 mm, 25 mm and 30 mm, our boards are supplied in a handy lightweight size of 1500 mm x 500 mm.

All our systems hold a European Technical Approval (ETA- 03/0050) and associated CE mark, as well as being independently certified at European level. fermacell flooring also carries a BBA certificate (93/3358).



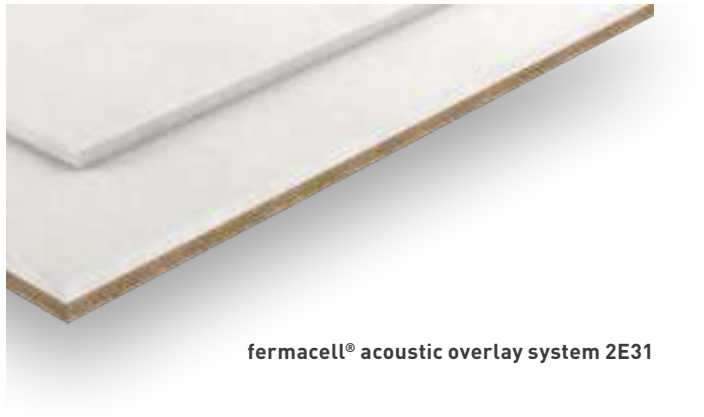
fermacell® dry flooring systems 2E22 & 2E11

Which fermacell® product is best for your project?

- **Dry screed solution**
  fermacell® 2E22 or 2E11
  Eliminating the need for wet trades completely and able to be worked on within 24 hours!

- **Overlay for underfloor heating systems**
  fermacell® 2E22 or 2E11
  Offering optimum thermal conductivity to enhance performance.

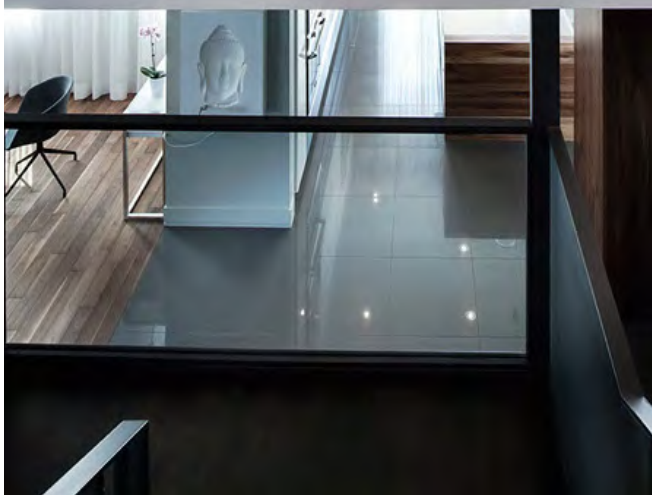
- **Acoustic overlay**
  fermacell® 2E31
  Comes with an additional wood fibre layer to further optimise acoustic isolation properties.



fermacell® acoustic overlay system 2E31



Applications



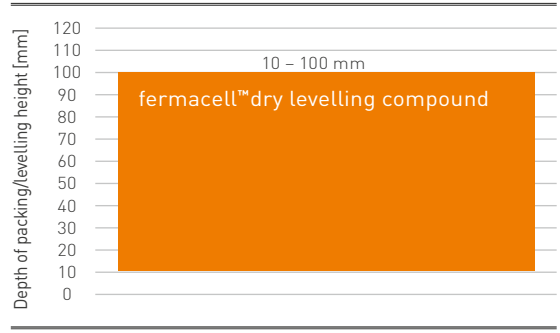
Dry levelling compound

The fermacell™ dry levelling compound can be used for levelling uneven floors in both new build and refurbishment projects. It is a special dried, mineral aerated granulate.

This innovative material has unique physical properties to make the granules extremely versatile. Critically, once laid, the angular and irregular shapes of the grain provide a self-locking mechanism, which provides excellent stability.

Using a dry self levelling system allows for a super-fast installation, with floors ready to work on within 24 hours. The overall system is extremely light-weight when compared to wet alternatives, reducing additional structural loading to the building.





Underfloor heating

For warm water underfloor heating systems, fermacell® 2E22 & 2E11 offer the ideal solution; providing the fast response times not possible with concrete screeds, coupled with the rapid installation of a dry flooring system.

fermacell® flooring offers minimal thermal resistance to enhance the performance of underfloor heating systems. This is less than half the thermal resistance of cheaper alternatives such as floor grade chipboard or ply.

As a result, energy consumption is reduced and overall system efficiencies are achieved. Experts claim that through using underfloor heating and fermacell dry flooring systems together, building occupants can save up to 15% on energy bills per annum when compared with a traditional wet screed and underfloor heating system.



	Dry Screed Board 2E11	2E22
		
Description	2 x 10 mm gypsum fibreboard	2 x 12.5 mm gypsum fibreboard
Thickness (mm)	20	25
Size (mm)	500 x 1500	500 x 1500
Weight (kN/m²)	0.23	0.29
Thermal resistance (m²k/W)	0.065	0.08
Application recommendations	Hot water underfloor heating Domestic wet floors Inlet temperatures max. 55 °C	

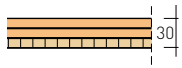
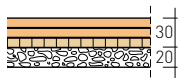
Acoustics

fermacell® 2E31 offers a high performance, low profile acoustic overlay system which significantly reduces the transmission of both airborne and impact sound.

Also offering a robust feel underfoot, 2E31 is the ideal floating floor treatment to complement structural elements. It is suitable for use with both concrete and timber floors, in either new construction or refurbishment projects. Our floor overlay can be used to support a wide variety of floor finishes.

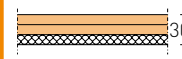
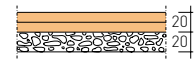
It provides exceptional airborne and impact noise reduction, outperforming many existing solutions and far exceeding building regulations, Part E (when used as part of a full system, floor & ceiling).



	2E31	2E31
Base floor $L_{n,w}$ 62 dB R_w 55 dB		
Construction	2 x 10 mm gypsum fibreboards + 10 mm wood fibre	2 x 10 mm gypsum fibreboards + 10 mm wood fibre on 20 mm levelling compound
Construction height	30 mm	50 mm
Performance with fermacell floor impact $L_{n,w}$	53 dB	50 dB
Airborne R_w	63 dB	60 dB

Base Floor = 22 mm wood based board, 220 mm joist, 50 mm cavity insulation, 30 mm resilient metal ceiling system at 400 mm centres, 10 mm fermacell® gypsum fibreboard*.

*Ensure build-up meets fire performance required. For further support, contact our technical team.

	2E31	2E11
Base floor $L_{n,w}$ 78 dB R_w 55 dB		
Construction	2 x 10 mm gypsum fibreboards + 10 mm wood fibre	2 x 10 mm gypsum fibreboards on 20 mm levelling compound
Construction height	30 mm	40 mm
Performance with fermacell floor impact sound improvement ΔL_w for solid floor according to EN 12354	21 Rw = 61 dB	18 dB

Base Floor = Solid floor, 315 - 400 kg/m², 160 mm reinforced concrete floor

Floor coverings

As a robust, impact resistant overlay solution, fermacell® flooring systems offer full flexibility when it comes to choosing your ideal floor covering.

From textile and laminate to tile and wood, the possibilities for floor coverings are vast*.

fermacell® flooring provides excellent stability for:



Thin floor coverings
i.e. vinyl

Textile floor coverings
i.e. thick carpets

Parquet, laminate, cork
- glued

Parquet, laminate, cork
- laid floating

Ceramic tiles
⩽330 mm edge length

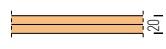
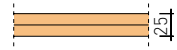
*For specific floor coverings please contact our technical department.



Fire protection

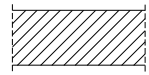
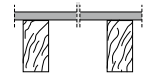
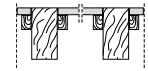
fermacell® flooring solutions can also be used to improve the fire protection classification of different types of base floor construction from above.

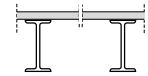
fermacell gypsum fibreboard is an A2 rated board offering a range of fire solutions. If additional protection is required (i.e. F 120) this can be achieved with fermacell systems. Please contact our technical team for more information.

2E11	2E22	2E31
		
Construction: 2 x 10 mm gypsum fibreboards	Construction: 2 x 12.5 mm gypsum fibreboards	Construction: 2 x 10 mm gypsum fibreboards + 10 mm wooden fibre
Fire protection without any additional layers:		
F 60†	F 60†	F 60†

†Tested to DIN 4102

The fire protection improvement of types of base floor systems

Concrete floor + drawing	Wooden joist floor	Wooden joist floor
	with a structural overlay board	with load-bearing in-fill side supports with a structural overlay board
		
Minimum thickness based on the static loading requirements.	Timber-based boards t ≥ 16 mm ρ ≥ 600 kg/m³ Plywood boards t ≥ 16 mm ρ ≥ 520 kg/m³ sheets/boards t ≥ 21 mm	Timber-based boards t ≥ 16 mm ρ ≥ 600 kg/m³ Plywood boards t ≥ 16 mm ρ ≥ 520 kg/m³ sheets/boards t ≥ 21 mm

Steel profiled sheet + concrete	Steel beam floor
	
Measurement of trapezoidal steel profiles based on the static loading requirements Please note the special requirements of the AbP certificate Additional layers may be required.	Measurement of steel beams based on the static loading requirements Ceilings with 16 mm thick timber or concrete -based boards, or others suitable alternatives.

* The base floors including their load bearing performance and reinforcing components should be designed in accordance with the dynamic and static load requirements for their intended use.



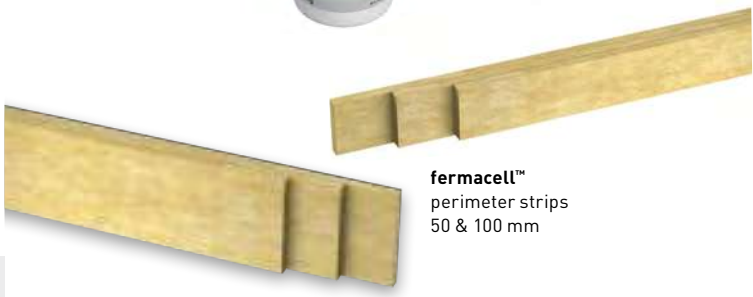
fermacell™
self levelling compound



fermacell™
dry levelling compound



fermacell™
greenline floor glue
1 kg bottle



fermacell™
perimeter strips
50 & 100 mm

Flooring accessories

Our flooring is complemented by a range of fermacell™ accessories to complete your installation:

Product	Code	Size
Dry levelling compound	78011	50 ltr bag /18.5 kg
Self levelling compound	78009	25 kg
Greenline floor glue	79225	1 kg bottles carton
50 mm perimeter strip	79078	1.5 kg
100 mm perimeter strip	79076	1.5 kg
19 mm floor screws	79010	1000
22 mm floor screws	79013	1000



fermacell™
floor screws
19 & 22 mm



Installation guidance

Installing dry levelling compond



1 Fitting the perimeter strips



2 Preparing the area to be levelled by creating two dams



3 Pour and level fermacell™ levelling compound



4 Place fermacell flooring on to fermacell levelling compound

Installing fermacell® boards



1. Apply perimeter strips and push into the perimeter junctions



2 Saw off any protruding edges for the first row



3. Install the fermacell flooring



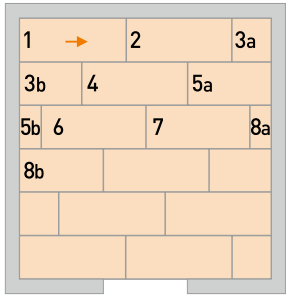
4. Apply the fermacell™ floor glue to the shiplap joint



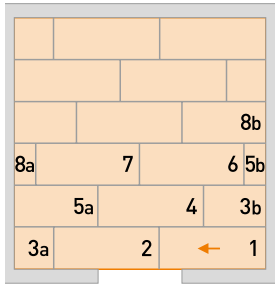
5. Glue the elements to ensure fully bonded



6. Fix by screwing or stapling within 10 minutes – stand on the overlapping edge element



Installation diagram 1
This shows installation towards the door.



Installation diagram 2
This shows installation away from the door. If the fermacell flooring elements are being laid on dry levelling compound, we recommend that you work from the door to avoid disturbing the granules.

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