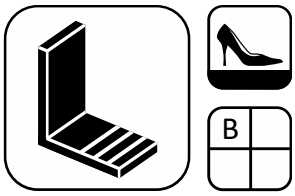
Installation guideline

WestWood® Insulation System



Short description

The WestWood® insulation system is an economical solution for sealing roof terraces, balconies, etc. with additional thermal insulation for the structure. fermacell® Powerpanel TE is used as a load distributing board.
Please note: these installation instructions are intended as additional information for the Wecryl waterproofing system and only describe the implementation steps and products up to the Wecryl 171 primer layer on fermacell®.

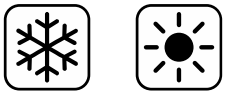
Characteristics and benefits

- Enables efficient thermal insulation
- Durable system for walking surfaces
- Low profile height of the dry flooring panels (25 mm)
- Mesh-reinforced dry flooring panels with high resilience
- Fast, simple installation
- Able to adapt to complex gradients
- Meets DIN 18531 building regulations

Areas of application

Implementing waterproofing systems for foot traffic areas on thermal insulation in in places such as balconies, arcades, roof terraces, etc.

Application conditions



Temperatures

The system can be applied in an ambient temperature range of +5°C to +35°C.
Please refer to information on the Wecryl waterproofing system for details.

Product	Temperature range (°C)		
Primer layer	Air	Substrate*	Material
Wecryl 171	+3 to +35	+3 to +40*	+3 to +30
Teroson EF TK 395	-5 to +45	-5 to +45	-5 to +45
Wecryl 810	-5 to +35	+3 to +50*	+3 to +30
fermacell® Floor Glue	>+5	+5 to 35	+10 to 35

* The substrate temperature must be at least 3 °C above the dew point during application and curing.

Humidity

The relative humidity must be ≤ 90%.
The surface to be coated must be dry and free of ice.
The surface must be protected from moisture until the coating has hardened.

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Application rates and curing times

Product	Application rate	
Primer layer	smooth substrate	
Teroson EF TK 395	approx. 50 ml/m²	
Wecryl 171	approx. 1.2 kg/m²	two-layer (2x0.6)
Wecryl 810	1.7 kg/m²/mm	
fermacell® Floor Glue	40-50 g/m²	
fermacell® Powerpanel TE screws	approx. 20 units/m²	

Product	**Curing time** (approx. values at 20 °C)			
	Pot life	**Rainproof**	**Overlayable**	**Fully cured**
Teroson EF TK 395	-	-	-	30-60 min
Wecryl 171	15 min	30 min	45 min	2 hours
Wecryl 810	15 min	30 min	45 min	3 hours
fermacell® Floor Glue	-	-	Remove excess immediately	

Application tools

Product	Application tool
Wecryl 171	sheepskin roller
fermacell® Powerpanel TE	Flex, sabre saw
Teroson EF TK 395	PU foam gun
Wecryl 810	surfacer

Substrate preparation and installation of the system components

Correct substrate preparation and a proper primer coating are essential to ensure the functional durability of the WestWood® system.
Generally, the substrate (concrete/screed) must be sound, dry and free from loose or adhesion-reducing particles. That is why coats of paint, cement slurry, dirt and grease, for instance, must always be removed completely. As a rule this is done by shot blasting, scarifying or grinding and then vacuuming off the debris.

The basic structure of the system on insulation or dry flooring panel is as follows:
Concrete/screed
Vapour barrier
Insulation
Dry flooring (fermacell® Powerpanel TE)
Wecryl waterproofing system

<u>Vapour barrier:</u>
The vapour barrier (aluminium-laminated sheeting, for example) is installed on the prepared substrate according to the manufacturer's specifications.
The vapour barrier applied as thin as possible (d=1.5 mm).
Product: BauderTEC KSD, for example

<u>Insulation:</u>
The insulation is bonded onto the vapour barrier with a suitable adhesive according to the manufacturer's specifications.
In principle, the insulation of choice can be used, but attention must be given to the following requirements:

- According to the company specifications from James Hardie, the insulation must be suited for use in the fermacell® Area of Application 2. (see the application guidelines “Additional insulating materials for fermacell® flooring systems”.)
- Insulation must be suited for exterior application according to DIN 4108-10 (Class DAA) and must be extremely resilient (dh, ds or dx)
- Only EPS/XPS/PUR or PIR insulating materials are permitted
- Install with a rabbet wherever possible
- Secure the edges of the insulation with suitable boards or L-brackets

Product: for example Bauder PIR Compact, Bauder PIR B or EPS DEO 150
Adhesive: for example Bauder foam adhesive

Please note: we recommend remaining within the system from a single manufacturer when selecting vapour barriers, insulation and compatible adhesive.

<u>fermacell® Powerpanel TE:</u>
The panels are installed on the bonded insulation. Installation is performed according to the following specifications:
- Bonding the panels to the insulation with Teroson EF TK 395
- Place the sheets in an offset manner, screw them in place and bond according to manufacturer’s instructions (with screws every 10 to 15 cm)
- Prior to applying the primer, scrape off and remove the excess adhesive on the sheets using a trowel
Product: fermacell® Powerpanel TE
Adhesive: fermacell® floor glue
Screws: fermacell® Powerpanel TE screws

The panels are to be installed as level as possible. Carefully sand the edges, height differences and gaps smooth as necessary or surface and close them with Wecryl 810 (applying primer beforehand). The sheets must be decoupled to prevent upstand (for example, using PUR foam or screed edging strips). This must be cut flush after installation. The maximum decoupling gap is 5 mm – larger gaps must be closed with Wecryl 810 and covered with joint tape.

Loose material or material which can impair bonding must be removed from the sheets before applying the primer (<u>do not sand</u>!).

Primer layer

The primers applied to the installed, prepared boards.

Wecryl 171 – low-viscosity primer for mineral substrates
Wecryl 171 is used to close the pores in the surface of the cement board and to produce a lasting bond to the Wecryl R 230 used for sealing afterward.

The primers applied in two layers, each approximately 0.6 kg/m².
(The first layer must be fully cured.)

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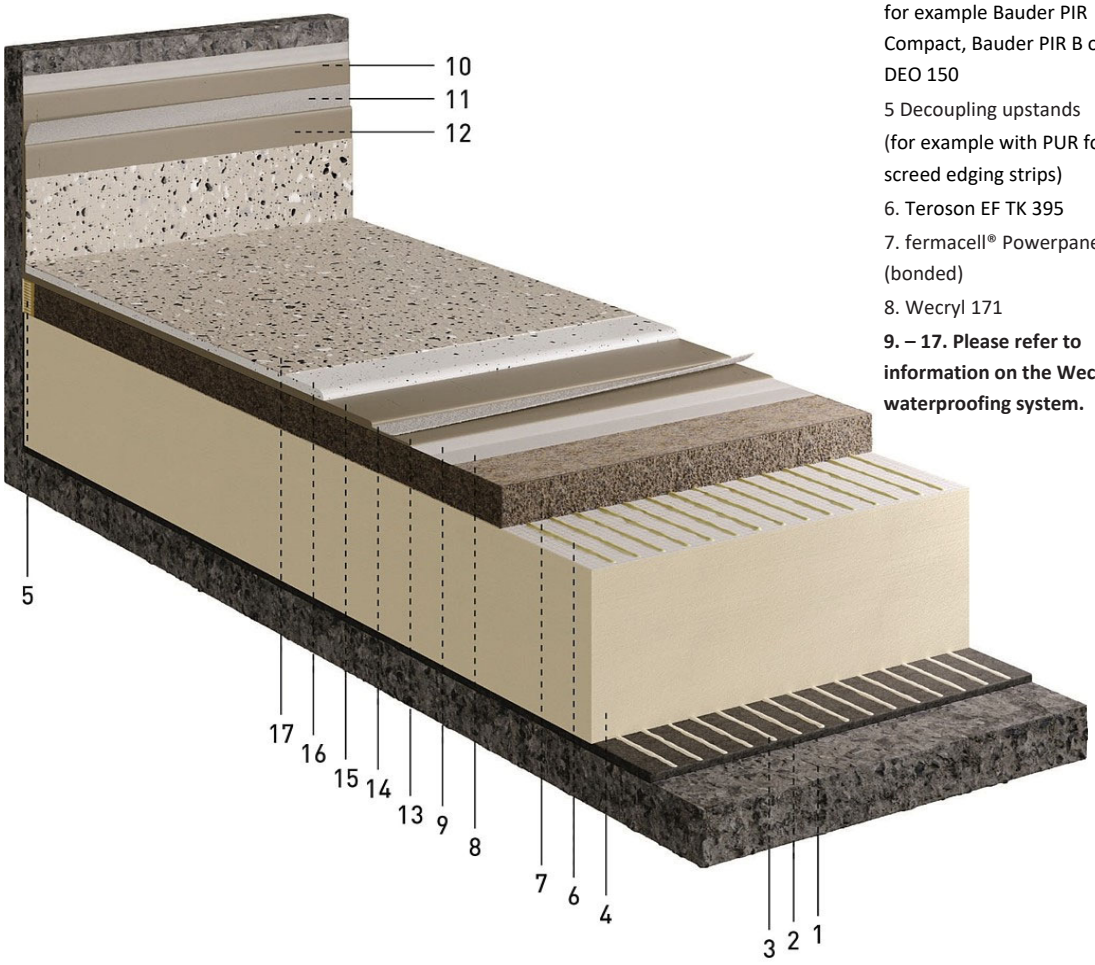
Levelling	Edges, height differences and gaps are smoothed over with Wecryl 810 as necessary.
Gradient	To be created by thermal insulation or in the screed.
Waterproofing layer	Please refer to information on the Wecryl waterproofing system for further processing.
Detail waterproofing	**Please refer to information on the Wecryl waterproofing system.**
Expansion joint waterproofing	Please refer to the “Detail interfaces” brochure for waterproofing different types of joints.
Protective layer	**Please refer to information on the Wecryl waterproofing system.**
Cleaning the tools	If work is interrupted or when it is completed, clean the tools thoroughly with WestWood® Cleaning Agent within the pot life of the material (approx. 10 minutes). This can be done with a brush. The tools are ready to be used again as soon as the cleaning agent has evaporated fully. Simply immersing the tools in the cleaning agent will not prevent the material from hardening.
Information on safety and risks	Please refer to the safety data sheets for the products used.
General information	The preceding information, especially with regard to the application of the products, is based on extensive development work and many years of experience and is provided as the best of our knowledge. However, the wide variety of requirements and conditions on site mean it is necessary for the installer to test the product to verify its suitability for the intended purpose. Only the most recent version of the document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products.
Appendix	System drawing

Last revised: 1 February 2022

System drawings

WestWood® Insulation System



Substrate

1 Concrete, for example

Supplementary products

2 Vapour barrier (aluminium-laminated)
for example BauderTEC KSD

3 Adhesive for insulation material
for example Bauder foam adhesive

4 Insulation (EPS/XPS/PUR or PIR insulating material)
for example Bauder PIR Compact, Bauder PIR B or EPS DEO 150

5 Decoupling upstands
(for example with PUR foam or screed edging strips)

6. Teroson EF TK 395

7. fermacell® Powerpanel TE (bonded)

8. Wecryl 171

9. – 17. Please refer to information on the Wecryl waterproofing system.

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