

02 | 2024

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CEMWOOD 
mineralized wood chips

**UNCOMPROMISING
ECOLOGICALLY.
TECHNICALLY
UNBEATABLE!**

**HEAVY-DUTY LEVELLING FILL
for professional floors
and sustainable building**

PRODUCTS | TECHNICAL DATA | RANGE

BUILDING FOR THE FUTURE:

In order to assess the sustainability of a building, the three phases of **construction, operation and dismantling** must be taken into account. The processes and materials used in the life cycle are analysed.

High-quality building materials lead to an optimisation of the "grey energy requirement" (energy for production, transport, storage and disposal) and to long-term use.

The CEMWOOD fills made from domestic wood impress with their exemplary CO₂ balance. The systems, which can be recycled at any time, also enable a recyclable construction. This conserves resources and minimises construction, demolition and waste materials. The primary energy otherwise used in the manufacturing of building materials is avoided.

With our products, an ecological and sustainable construction is possible without compromising functionality and cost-effectiveness.

Conclusion: In the interest of climate protection, sustainability aspects must be incorporated into modern and future building culture regarding all construction phases. We are actively contributing to this with our range of products.



CEMWOOD LEVELLING FILL

Climate-positive, sustainable and quality-assured during their manufacturing

Consistently ecological - technically unbeatable. This is our motto. Our fills made from mineralised wood chips are climate and resource-friendly thanks to a sophisticated, patented manufacturing process and are 100% recyclable. And: since January 2023, our products have also been certified for installation in buildings in accordance with the health requirements of the Sustainable Building Quality Seal (QNG).



→ → → *Consistently eco-friendly: Lifecycle of the sustainable CEMWOOD levelling fills*

CO₂-BALANCE: EXEMPLARY

The manufacturing of CEMWOOD fills is consistently climate and resource-friendly. The fills of different chip sizes produced from domestic wood are mineralised without chemical additives. During the climate-friendly production our levelling fills bind more CO₂ than is released. During the utilisation phase, the CO₂ remains bound. The systems, which can be recycled at any time, also enable a circular construction in the sense of a sustainable circular economy.

100% REUSABLE

Our fill do not require any treatment or processes for reprocessing after use or removal. They are therefore not really – by definition – "recycled", but can be used immediately and repeatedly. The non-bonded levelling fill can be easily removed and reused as dry fill thanks to their loose structure. CEMWOOD fills are also suitable as an aggregate for concrete. The chips can even be used as a soil additive.

DID YOU KNOW?

The subsidizing conditions that have been in force since March 2023 in the "Climate-friendly new construction programme" of the Kreditanstalt für Wiederaufbau (KfW) require a proof in accordance with the requirements of the Sustainable Building Quality Seal (QNG). This means that a low-interest subsidizing loan of up to 240,000 euros per residential unit can be applied for in programmes 297 and 298 for a building in the Efficiency House 40 standard with sustainability class (NH class).

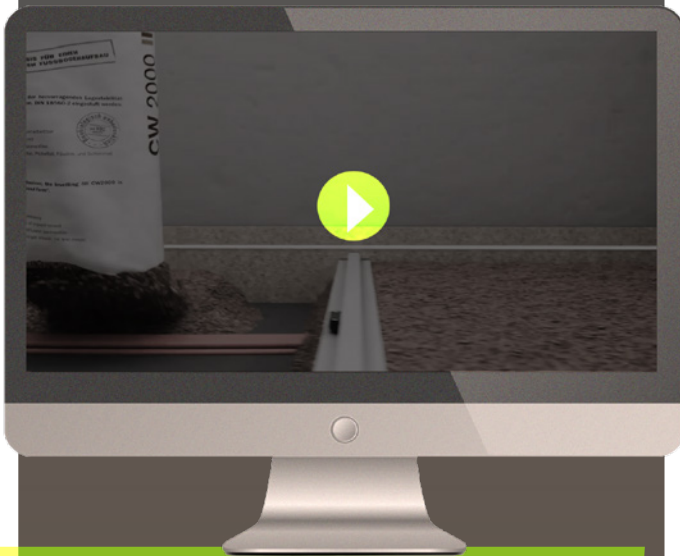


DRY LEVELLING FILLS

As stable and safe as a bonded fill

Our pouring products are able to impress with their extremely high positional stability and excellent load transfer with a simultaneous settlement resistance. In the standard combination with load-distributing thermal and impact sound insulation layers, dry CEMWOOD levelling fills are in no way inferior to the bonded construction with fills. The positional stability – due to the defined chip properties – also means that the levelling layer can be loaded immediately after levelling and can therefore be used.

PROCESSING:
Apply - level - done
This is as fast as it gets!



→ → → *The processing is very simple. All work steps can be seen in the video clip at*

www.cemwood.de

Processing is carried out completely dry – without binders or water. The low weight of the fill also makes work easier and is easy on the back. GRANUBOT is used as a professional support tool for larger projects. The lightweight device levels layers and removes excess levelling fills in a single work step.



1m³ fill binds

→ 207 kg CO₂

RESISTANCE:

against fire, water, pests, fungi and rot

We attain the best possible benefits that wood has to offer as a building material. The mineral coating, which is only micrometres thick, effectively protects the wood cores from pests, rot, mould and fungal infestation. Mineralisation suppresses capillary water absorption, preventing the swelling and shrinkage typical of wood. And: CEMWOOD levelling fills are flame retardant according to class Bfl-S1.

SYSTEM WITH PARTNERS:

economical and innovative

At Cemwood, we are always on the lookout for innovative and economical solutions for professional flooring systems. An important factor here is the use of ecologically high-quality materials for healthier and sustainable construction. In order to achieve this goal and maximise the outstanding properties of our products, we are constantly developing new flooring system solutions with high-quality partner products that meet the highest standards.

→ → → *Interested? Then simply request a system brochure at info@cemwood.de*

CEMWOOD PRODUCT RANGE:

For low and high filling heights in new builds and renovations

The combination of the diverse and unique properties of CEMWOOD CW2000, CW1000 and CW020 fills results in a highly ecological and efficient building material. This makes the levelling fills suitable for low and high filling heights under all wet and dry screed systems. With CEMWOOD levelling fills, you can build safely and risk-free, without subsequent settlement or cracks – in new buildings, renovations and listed buildings.



CW020: THE SOPHISTICATED

→ *Levelling fill: Filling height 0 to 20 mm*

Due to the special grain distribution, CW020 is suitable for levelling under floating floors, for a small unevenness and areas with zero run-out. It's a quick and inexpensive alternative solution to wet levelling compounds.



CW1000: THE ALL-ROUNDER

→ *Levelling fill: Filling height 10 - 60 mm*

→ *Cavity fill*

The fine mineralisation of the very small chips makes low construction heights the supreme advantage of CW1000. As a cavity fill, it is also great for the filling of shafts, ducts and wooden beam ceilings.



CW2000: THE CHAMPION

→ *Levelling fill: Filling height 10 - 200 mm*

The strong mineralisation of the coarse fill enables large filling heights. CW2000 is perfect for large uneven areas, embedding installations, as well as ceilings and vaults. CW2000 is unbeatable in terms of positional stability and impact sound insulation.

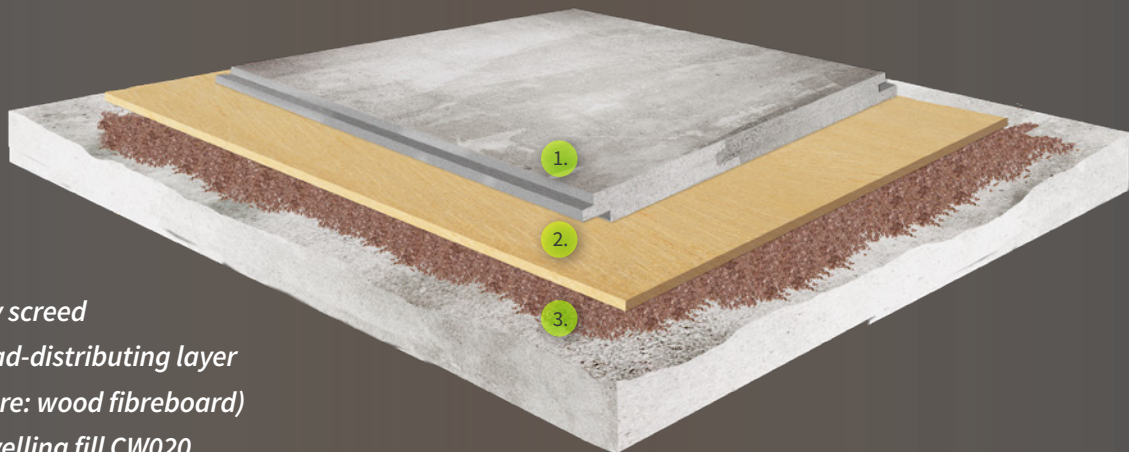


CW020: THE SOPHISTICATED

Application example



1.] Dry levelling fill for small level irregularities on solid ceilings

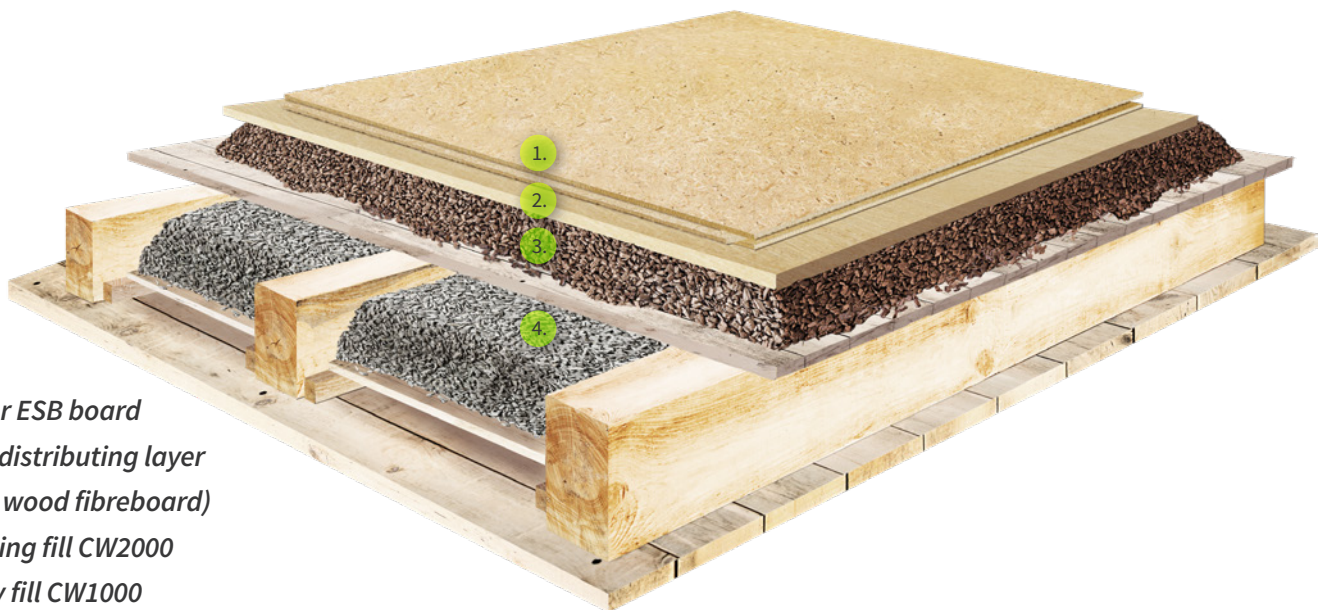


1. Dry screed
2. Load-distributing layer
(here: wood fibreboard)
3. Levelling fill CW020

CW1000: THE ALL-ROUNDER

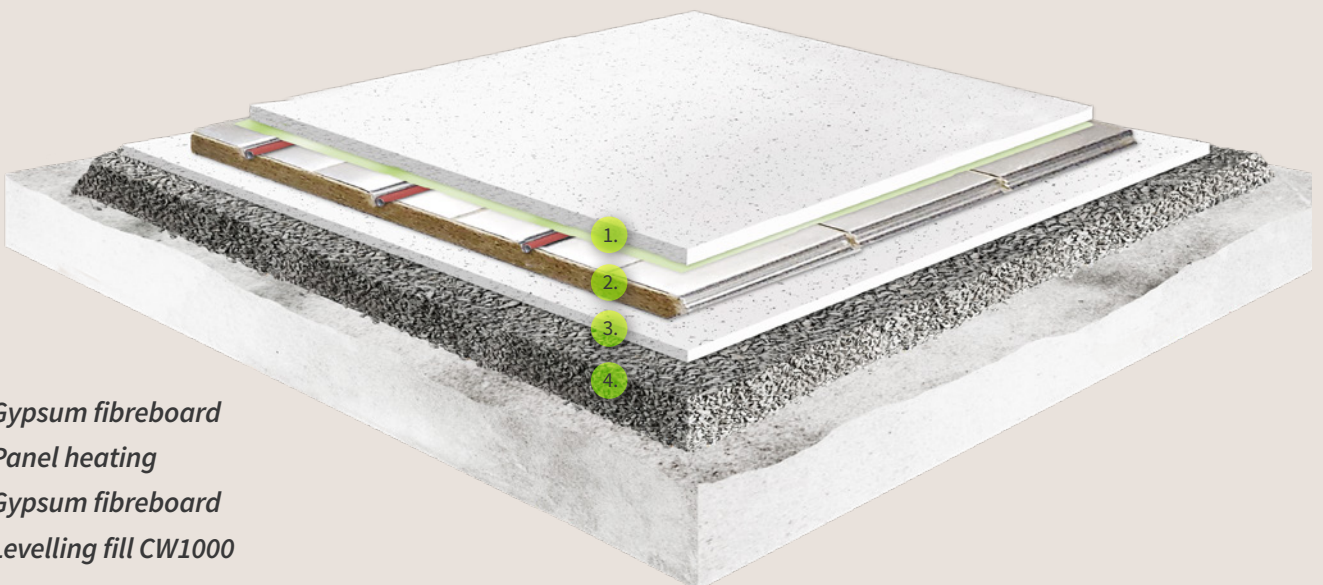
Application examples

1.] Cavity filling in wooden beam ceilings: Perfect for renovating old buildings



1. OSB or ESB board
2. Load-distributing layer
(here: wood fibreboard)
3. Levelling fill CW2000
4. Cavity fill CW1000

2.] Dry construction system with panel heating: on wooden beam or solid ceilings



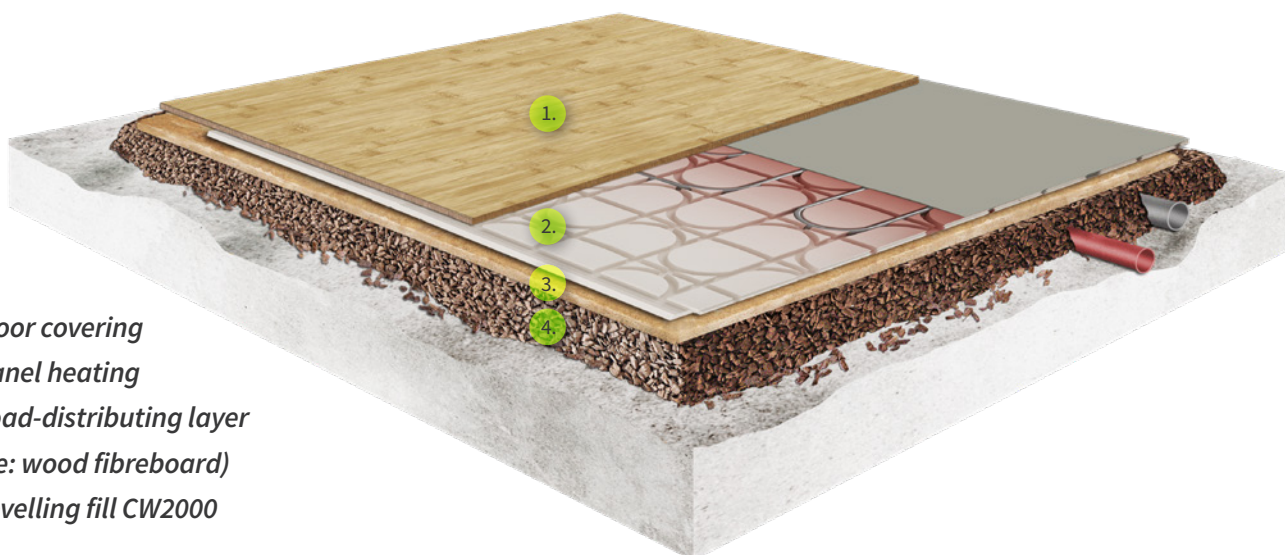
1. Gypsum fibreboard
2. Panel heating
3. Gypsum fibreboard
4. Levelling fill CW1000

CW2000: THE CHAMPION

Application examples



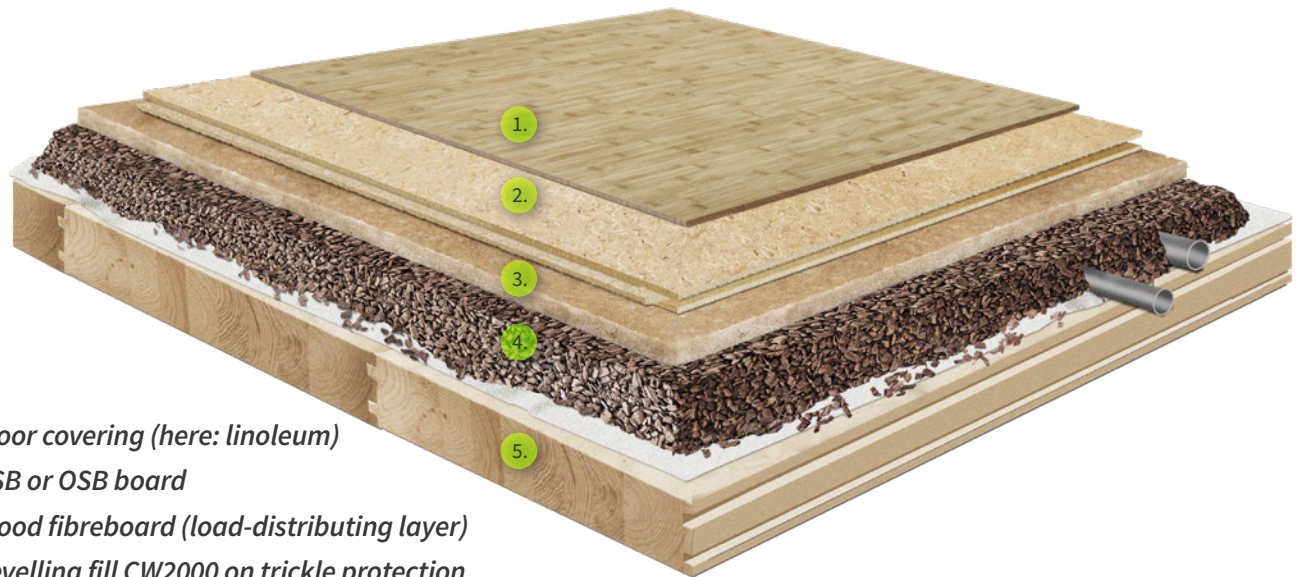
1.] Dry construction system with panel heating: on wooden beam or solid ceilings



1. Floor covering
2. Panel heating
3. Load-distributing layer
(here: wood fibreboard)
4. Levelling fill CW2000

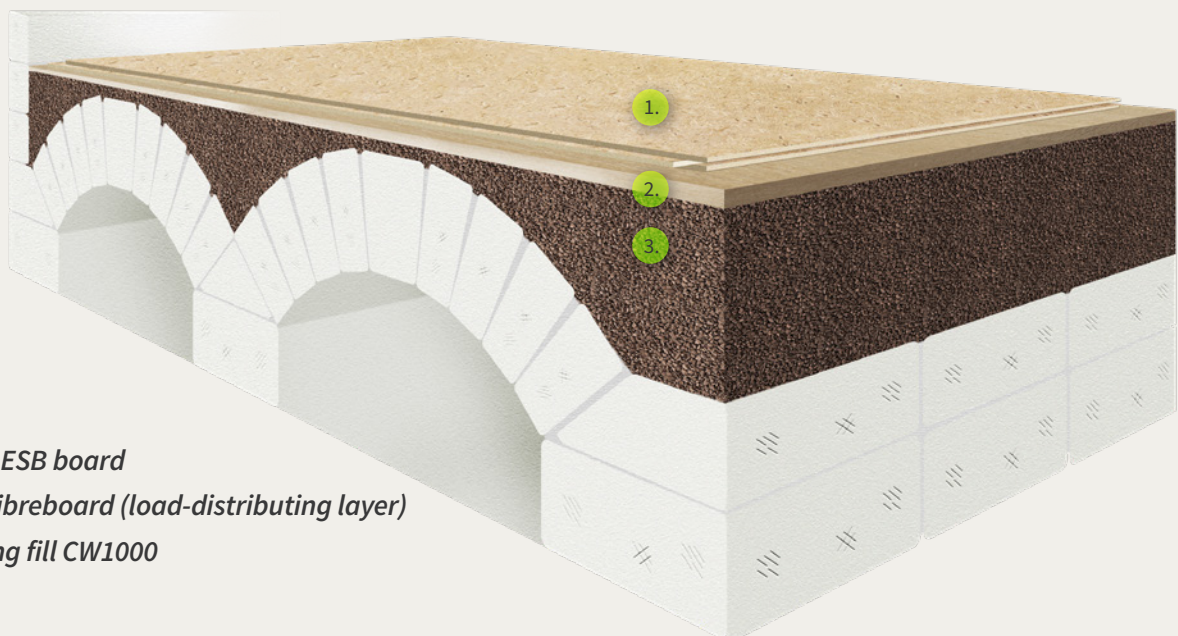
Install. Level. Done.
This is as fast as it gets.

2.] Floor construction with large filling heights



1. Floor covering (here: linoleum)
2. OSB or ESB board
3. Wood fibreboard (load-distributing layer)
4. Levelling fill CW2000 on trickle protection
5. BSH ceiling elements

3.] Dry filling on ceiling vaults: Perfect for listed buildings



1. OSB or ESB board
2. Wood fibreboard (load-distributing layer)
3. Levelling fill CW1000

PROJECTS & REFERENCES:

EXAMPLES

Detached house, renovation of an old building or luxury resort

Our projects are highly diverse and often unusual. But they have one thing in common: The client's demand for high-quality building materials. The intergenerational service life of a modular conversion house in Berlin required the adherence to strict ecological principles for the interior work. CEMWOOD was able to impress with the reusability of the fills. Building ecology and luxury was combined for the Allgäu Alpine Chalets: The client attached great importance to the use of high-quality ecological building products and opted for CEMWOOD. The "Straw Bale House" in Kamenz is unusual: the single-family home has a tree trunk as the centrepiece and walls insulated with straw that "should breathe", said the client – and opted for CEMWOOD levelling fills. This meant that the numerous ventilation installations and supply lines were embedded securely and the requirement for a highly ecological construction method was met.

WHAT MAKES CEMWOOD SPECIAL:

Advantages at a glance

ECOLOGICAL PROPERTIES

- Wood as a raw material from local forests
- No chemical additives during production
- 1m³ of fill binds 207 kg of CO₂ according to the new EPD
- Reusable

ADVANTAGES DURING PROCESSING

- Fast processing without water/binder
- Can be loaded immediately after pouring the fill
- Reliably fills even the smallest cavities
- No formation of nests / defects
- Low weight
- Easy to remove again

BUILDING PHYSICS PROPERTIES

- Stable in position like in a bound form, non-migrating
- Impact sound reducing
- Water absorption: no swelling or shrinkage
- Resistant to mould, fungi and rot

BENEFITS FOR THE CLIENT

- Shorter construction time
- Lower labour costs
- Lower construction costs
- Active contribution to protecting the environment
- Safety through risk-free construction
- Impact sound reduction increases quality of living

TECHNICAL DATA:

Everything you need to know

	CW020	CW1000	CW2000
CHIP SIZE	1-3 mm	1-5 mm	5-10 mm
FIRE BEHAVIOUR	Class Bfl-S1	Class Bfl-S1	Class Bfl-S1
THERMAL CONDUCTIVITY	0.07 W/mK	0.07 W/mK	0.07 W/mK
COMPRESSIVE STRESS	≥ 130 kPa at d=20mm	≥ 190 kPa at d=60mm	≥ 320 kPa at d=100mm
DYN. STIFFNESS	n.a.	< 65MN/m ³	< 40MN/m ³
BULK DENSITY	approx. 320 kg/m ³	approx. 320 kg/m ³	approx. 360 kg/m ³
SURFACE WEIGHT	3.2 kg/m ² and cm height	3.2 kg/m ² and cm height	3.6 kg/m ² and cm height
INSTALLATION HEIGHT	0-20 mm	10-60 mm	10-200 mm
PACKAGING UNIT	50 litres	50 litres	50 litres
REQUIREMENT /cm filling height	10 litres per m ²	10 litres per m ²	10 litres per m ²





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