CEWOOD Building

CEWOOD BUILDING PANEL INSTALLATION GUIDE

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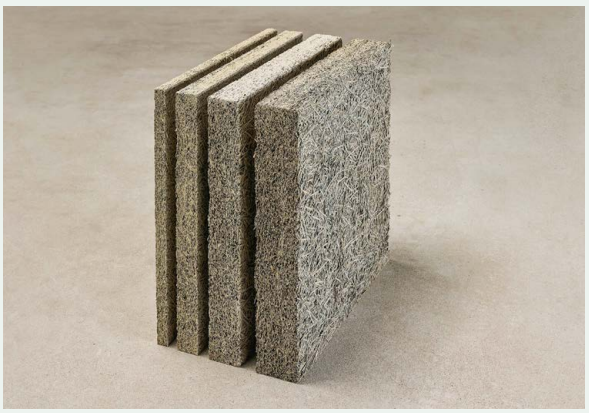
Application

CEWOOD Building panels are designed for plastered wall systems in timber-frame new-build and renovation projects. The panels provide excellent plaster adhesion, moisture regulation and thermal inertia while creating a durable and energy-efficient building envelope.

This guide summarizes the key requirements for panel installation, fastening, reinforcement and plaster application to ensure reliable long-term performance.



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GENERAL INSTRUCTIONS

Initial inspection of panels

Upon delivery, carefully check that the panels match the order and have no visible defects. If any defects or inconsistencies are found, immediately contact a CEWOOD representative.

Storage

Store the panels in a dry, well-ventilated area, protected from direct sunlight, rain and ground moisture. If temporary outdoor storage is unavoidable, cover the panels with a waterproof but vapor-open membrane that allows continuous air circulation around the stack. Panels must never be stored directly on the ground, as stable and elevated storage prevents mechanical deformation, edge damage and surface irregularities. inconsistencies are found, immediately contact a CEWOOD representative.

Before installation, allow the panels to acclimatize for 1–2 weeks to adapt to the surrounding environmental conditions. Allowing the panels to adjust to ambient temperature and humidity helps minimize dimensional movement and ensures optimal stability during and after installation.

Safety considerations

When working with CEWOOD Panels, always wear appropriate personal protective equipment, including gloves, safety goggles and a respirator. These provide effective protection against dust, abrasions and accidental injuries. Gloves should be worn throughout the entire process to maintain a secure grip and avoid scratches.

Panels should always be handled by at least two workers, especially for larger sizes, to reduce the risk of breakage and ensure safe maneuvering. For heavier panels, use suitable mechanical lifting equipment to protect both the material and the workers. When working at heights, follow all relevant safety regulations.

Processing

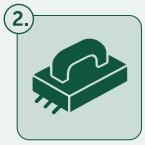
Most operations on CEWOOD Building panels can be completed using standard hand or power tools; no specialized or expensive equipment is required. All essential processing tasks—cutting, routing, drilling and shaping—can be performed with commonly available tools. However, using quality electric tools will significantly improve work speed, accuracy and finishing quality.

Cutting

CEWOOD panels can be cut easily using a hand saw, circular saw, table saw or jigsaw. Before cutting, place the panel on a stable, flat surface and mark the required dimensions. For long or precise straight cuts, especially with handheld saws, using a guide rail or straight edge is recommended to achieve clean results. (1.)

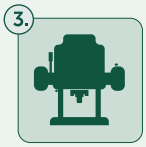
Edge sanding

After cutting, refine the edges using a sanding block equipped with P80 abrasive paper. This creates smooth, clean joints and ensures precise panel alignment during installation. (2.)



Routing / Rebating

Grooves and cable channels can be formed using a top router. Select a cutter width that matches the required groove profile. This method provides accurate recesses for cables or fittings while maintaining the panel's structural integrity. (3.)



Creating openings

For larger openings such as electrical boxes or switch housings, use hole saws or crown bits. For irregular or non-standard shapes, a jigsaw or coping saw offers the best control and finish. (4.)

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FASTENERS

Correct fasteners must be selected to ensure secure and durable installation of CEWOOD Building panels. The tables below define the required fasteners for different construction setups and are essential to ensure correct and safe fastening of CEWOOD Panels.

Wood screws for fastening directly on wooden laths

Technical data			
Minimal metal grade	A4		
Corrosion category	C3		
Screw diameter, mm	>5		
Head diameter, mm	~20		
Tensile strength, MPa	520-750		
Panel thickness, mm	25	35	50
Screw size, mm	50	60	80

Wood screws with metal washers for fastening on battens

Technical data		
Minimal metal grade	A4	
Corrosion category	C3	
Screw diameter, mm	>7.5	
Washer diameter, mm	~40	
Washer thickness, mm	>1.5 (metal washer, e.g., steel)	
Tensile strength, MPa	520-750	
Panel thickness, mm	50	100
Screw size, mm	100	150

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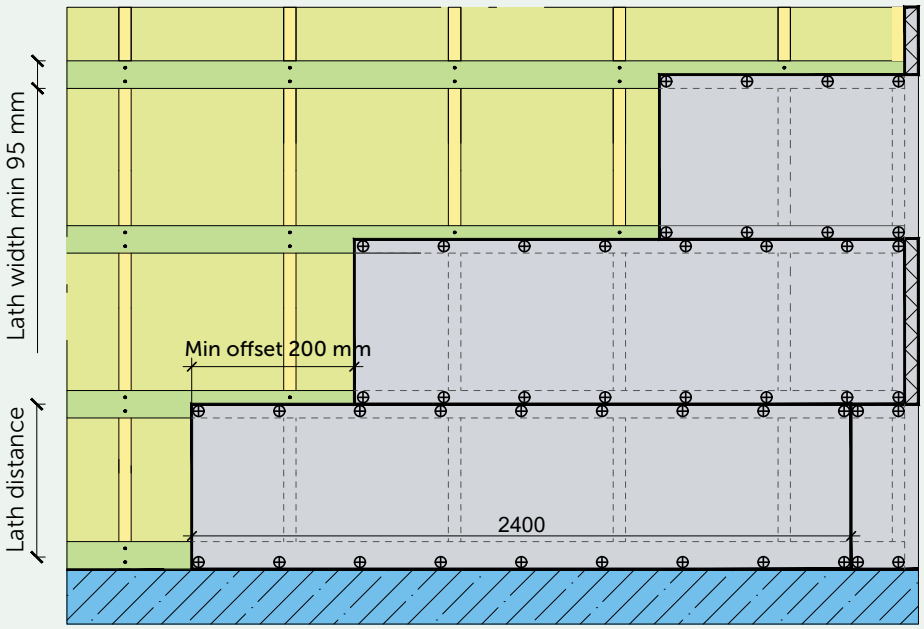
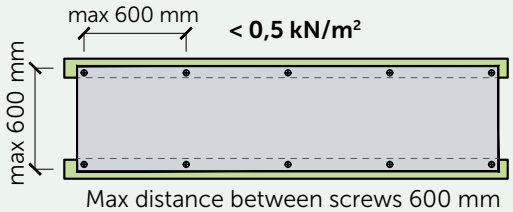
ASSEMBLY ON SUPPORT LATHS

The solution can be used for CEWOOD Building panels with a thickness **from 25 mm up to 50 mm.**

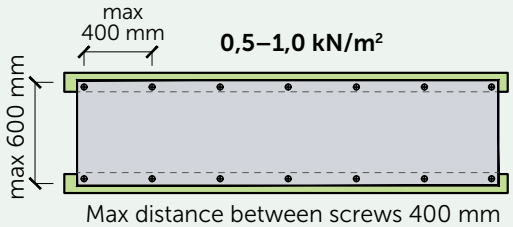


Panel assembly guidelines

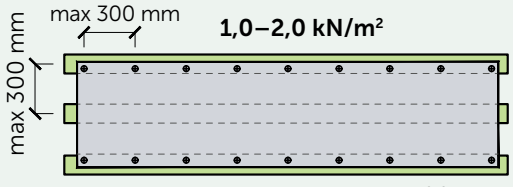
Screw and lath distances according to wind pressure



Max distance between screws 600 mm



Max distance between screws 400 mm



Max distance between screws 300 mm

Installation requirements related to wind pressure must be followed to ensure the structural performance of the entire system. Higher wind loads increase bending forces in the panel and pull-out forces on the fasteners, requiring reduced support and fixing distances. Correct installation helps ensure safe load transfer, limits panel movement and minimizes the risk of cracks in the plaster finish.

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ASSEMBLY ON SUPPORT LATHS

Wooden lath and screw distances depending on panel thickness and wind pressure:

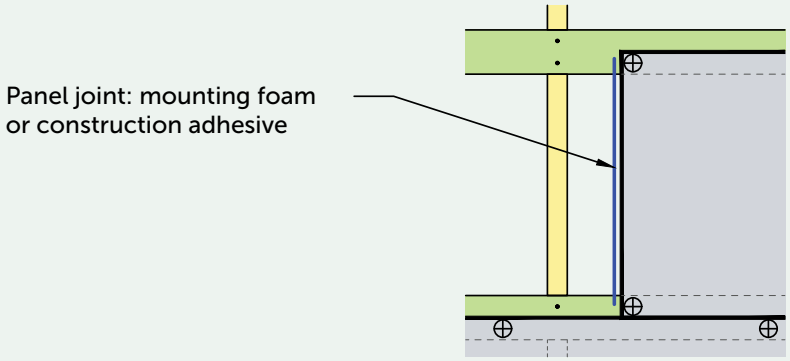
CEWOOD Panel thickness, mm	Max. distance between lath, mm	Max. fixture distance for wind <0,5 kN/m², mm	Max. fixture distance for wind 0,5-1 kN/m², mm	Max. fixture distance for wind 1-2 kN/m², mm
25	600	600	400	300*
35	600	600	400	300*
50	600	600	400	300*

(!) * In case of wind pressure in range of 1-2 kN/m², wooden lath maximum allowed distance 300 mm.

(!) **Notes:** Screw min length = panel thickness + 25 mm;
Use screws with head diameter >20mm;
For wind loads higher than 2 kN/m² please contact project engineer.

Panel side conection

Bond panel joints with montage foam or montage glue to ensure proper interlocking of the panels and to minimize movement at the joint.



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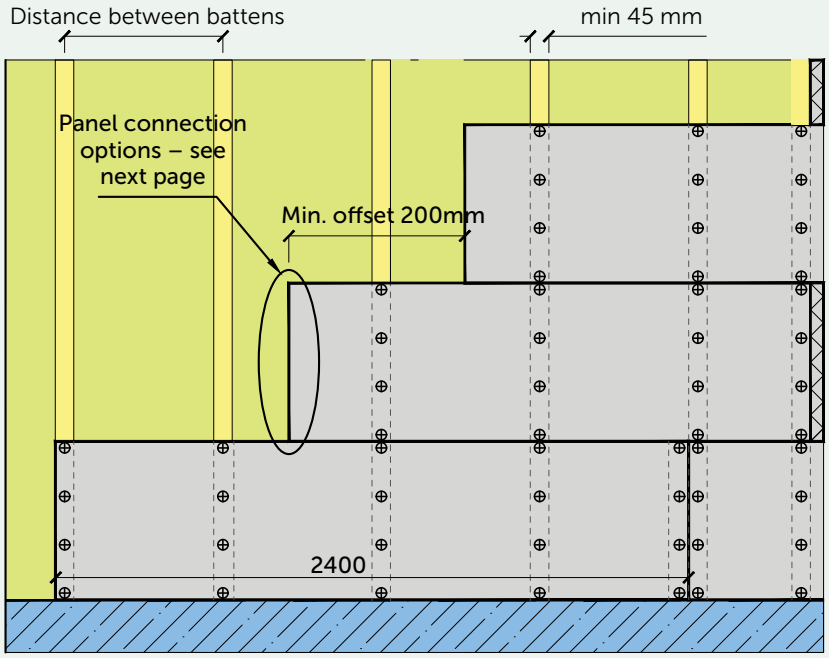
ASSEMBLY DIRECTLY ON WOODEN BATTENS

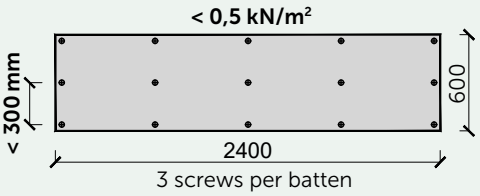
The solution can be used for CEWOOD Panels with **a thickness of 50 mm and higher.**



Panel assembly guidelines

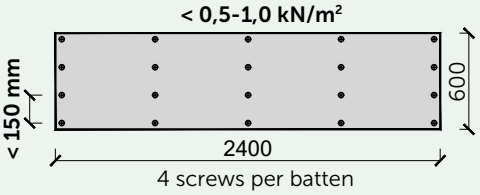
Screw placement for wind pressure

< 0,5 kN/m²



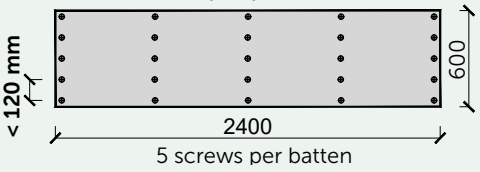
3 screws per batten

< 0,5-1,0 kN/m²



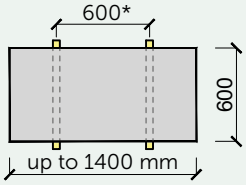
4 screws per batten

< 1,0-2,0 kN/m²

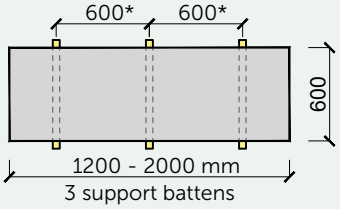


5 screws per batten

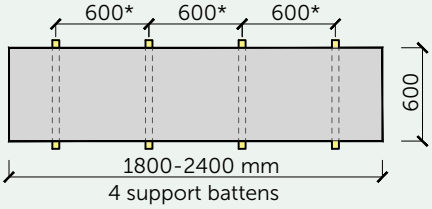
Minimum support battens according to different panel length:



2 support battens*



3 support battens



4 support battens

(!) * The recommended stud spacing is 600 mm, in line with standard timber-frame construction practice. Stud spacing may be increased up to 800 mm, provided that all specified fastening requirements and screw spacing according to the applicable wind load category are maintained.

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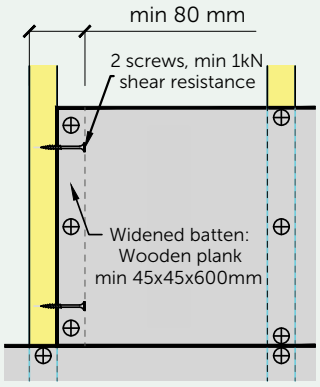
ASSEMBLY DIRECTLY ON WOODEN BATTENS

Fixtures requirements per panel per stud for different wind loads:

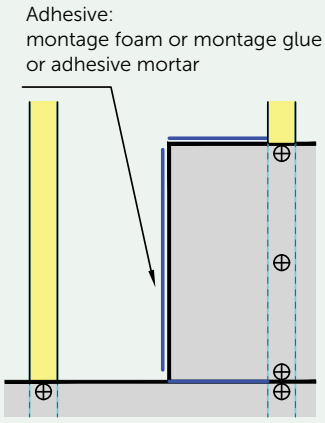
CEWOOD Panel thickness, mm	Max. distance between battens, mm	Fixtures for wind pressure <0,5 kN/m², psc	Fixtures for wind pressure 0,5-1 kN/m², psc	Fixtures for wind pressure 1-2 kN/m², psc
50	800	3	4	5
100	800	3	4	5

ⓘ **Notes:** Screw min length = panel thickness + 50 mm;
Use screws with washers diameter >40 mm, thickness >1,5 mm; For wind loads higher than 2 kN/m² please contact project engineer.

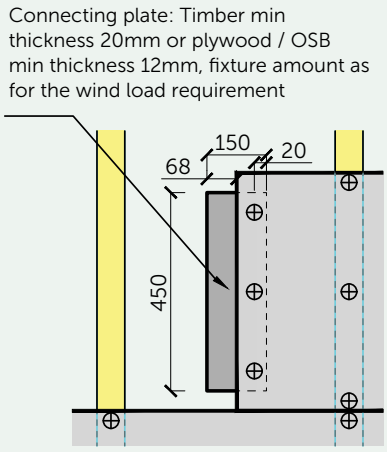
Panel edge conection options



Option 1 - on widened batten (wind pressure up to 2kN/m²)



Option 2 - adhesive on a perimeter of loose panel edges. (wind pressure <1kN/m²)



Option 3 - with connecting timber plate. (wind pressure <1kN/m²)

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ADDITIONAL (DOUBLE LAYER) MESH EMBEDDING

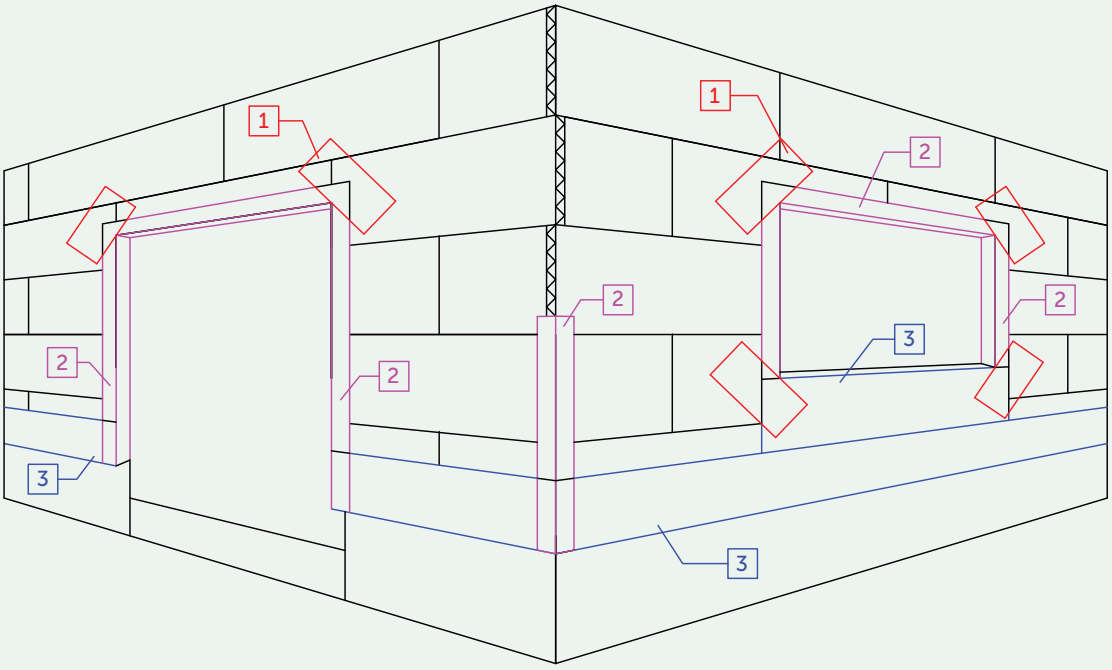
First layer – Additional reinforcement

The first reinforcement layer increases the mechanical strength of the plaster system and significantly reduces the risk of cracking. It is applied in areas subject to elevated stresses, such as corners, openings, joints, and other zones where structural movement or concentrated loads may occur. This layer helps to distribute stresses more evenly and stabilizes the surface before the main reinforcement layer is applied.

Second layer – Full-surface embedded reinforcement

The second reinforcement layer is embedded across the entire panel surface to ensure overall system stability and long-term durability. By forming a continuous reinforcing membrane, it prevents delamination, surface deformation, and other defects caused by thermal expansion, substrate movement, or mechanical impact. This layer provides uniform reinforcement and enhances the lifespan and reliability of the entire plaster system.

(!) **Notes:** Fiberglass mesh specification: Mesh size 4x4 mm or 5x5 mm; Weight 145-160 g/m^2.



Additional reinforcement placement

1 Diagonal reinforcement 300x600 mm.

2 Corner reinforcement 150x150 mm.

3 Strap reinforcement: width 400 mm.

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THIN-LAYER PLASTER SYSTEM

The solution can be used for wooden battens and support lath constructions.

Advantages of thin-layer plaster system

The thin-layer plaster system offers several key advantages, including reduced overall cost, faster and more efficient application, and the ability to be installed with less specialized labor compared to massive plaster systems.

Plastering guidelines

A leveling coat is first applied across the entire CEWOOD Panel surface to fill pores and joints and to create a uniform substrate for the reinforcement system. The coat must be applied continuously over the full area and allowed to dry completely. Approximate consumption: 3.0 kg/m^2.

After the leveling coat has dried, the reinforced base coat is installed. An initial layer of mortar is applied, into which the fiberglass mesh is embedded while the material is still fresh. The mesh must be fully integrated into the mortar, ensuring continuous coverage and correct overlap between mesh sections. Once the mesh is embedded, an additional layer of mortar is applied over it to fully encapsulate the reinforcement. Approximate consumption (including mesh embedding and smoothing): ~6.7 kg/m^2.

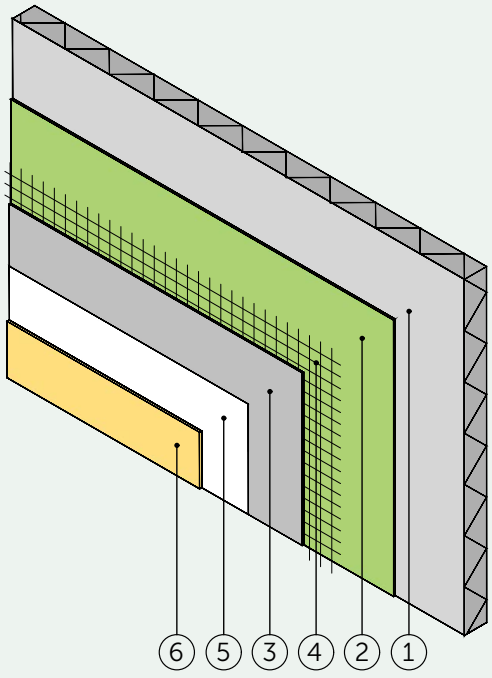
Additional reinforcement is installed in high-stress zones such as openings, corners and structural transitions to prevent cracking and stabilize the surface.

Once the reinforcement system has dried, the entire surface is primed to equalize absorption and ensure reliable adhesion of the finishing coat. Approximate consumption: 0.3 kg/m^2.

Finally, a thin-coat decorative plaster is applied continuously across the surface, forming the final texture and appearance. The plaster must be finished while still workable to avoid visible transitions or surface irregularities. Approximate consumption: 3.0–3.5 kg/m^2.

Numbering of plaster system layers:

1. CEWOOD Building panel
2. Leveling coat
3. Base coat (reinforcement layer) with fiberglass mesh 3–5 mm
4. Fiberglass mesh
5. Primer
6. Finishing coat



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MASSIVE PLASTER SYSTEM

The solution can be used for wooden battens constructions.

Advantages of massive plaster system.

The massive plaster system offers several strong performance advantages, providing a more robust and long-lasting solution for demanding applications. Compared to thin-layer systems, massive plaster delivers higher durability, improved acoustic performance, superior crack resistance, and increased load-bearing capacity.

Plastering guidelines

A leveling coat is first applied over the entire CEWOOD Building panel surface to fill pores, even out joint lines and create a stable, uniform substrate for the thick plaster layers. The coat must be spread continuously and allowed to dry fully under stable conditions. Approximate consumption: 3.0 kg/m^2.

Once the leveling layer has dried, the base plaster layer is applied. This layer forms the core structural part of the massive plaster system and is installed at approximately 15 mm thickness. It provides high mechanical strength, increased thermal inertia and a rigid, uniform surface for embedding reinforcement. The plaster is applied evenly across the panels to ensure a compact, void-free layer. Approximate consumption: ~19 kg/m^2.

While the base plaster layer is still workable, fiberglass mesh is embedded into the upper third of the layer. The mesh must be fully pressed into the fresh mortar, positioned at the correct depth and installed with sufficient overlap to secure continuous reinforcement. In stress-prone areas, such as corners, openings and structural transitions, additional diagonal or strip reinforcement is incorporated into the same working stage to prevent cracking and increase stability.

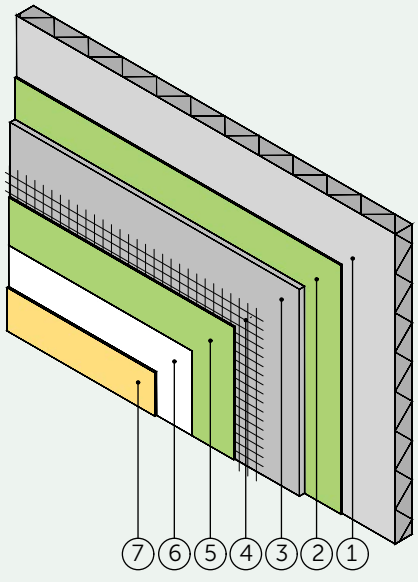
After the mesh has been embedded, the surface is smoothed to ensure a uniform finish. If required, a very thin corrective skim coat may be applied to fully cover the mesh and achieve a consistent overall thickness. The reinforced base layer must dry completely before further processing. Recommended drying time: at least 10 days.

Once dry, the entire surface is primed to equalize absorption and ensure optimal adhesion of the decorative finish. The primer is applied evenly across the surface and allowed to dry under normal conditions. Approximate consumption: 0.3 kg/m^2.

Finally, the finishing coat is applied in one continuous operation, forming the final texture and appearance of the system. The material must be worked while still fresh to avoid visible transitions or patchiness. The finished surface provides a durable, uniform and aesthetically consistent coating. Approximate consumption: 3.0–3.5 kg/m^2.

Numbering of plaster system layers:

1. CEWOOD Building panel
2. Leveling coat
3. Base plaster layer
4. Fiberglass mesh
5. Additional levelling coat (if required)
6. Primer
7. Finish coat



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