

Paper Waste Panels

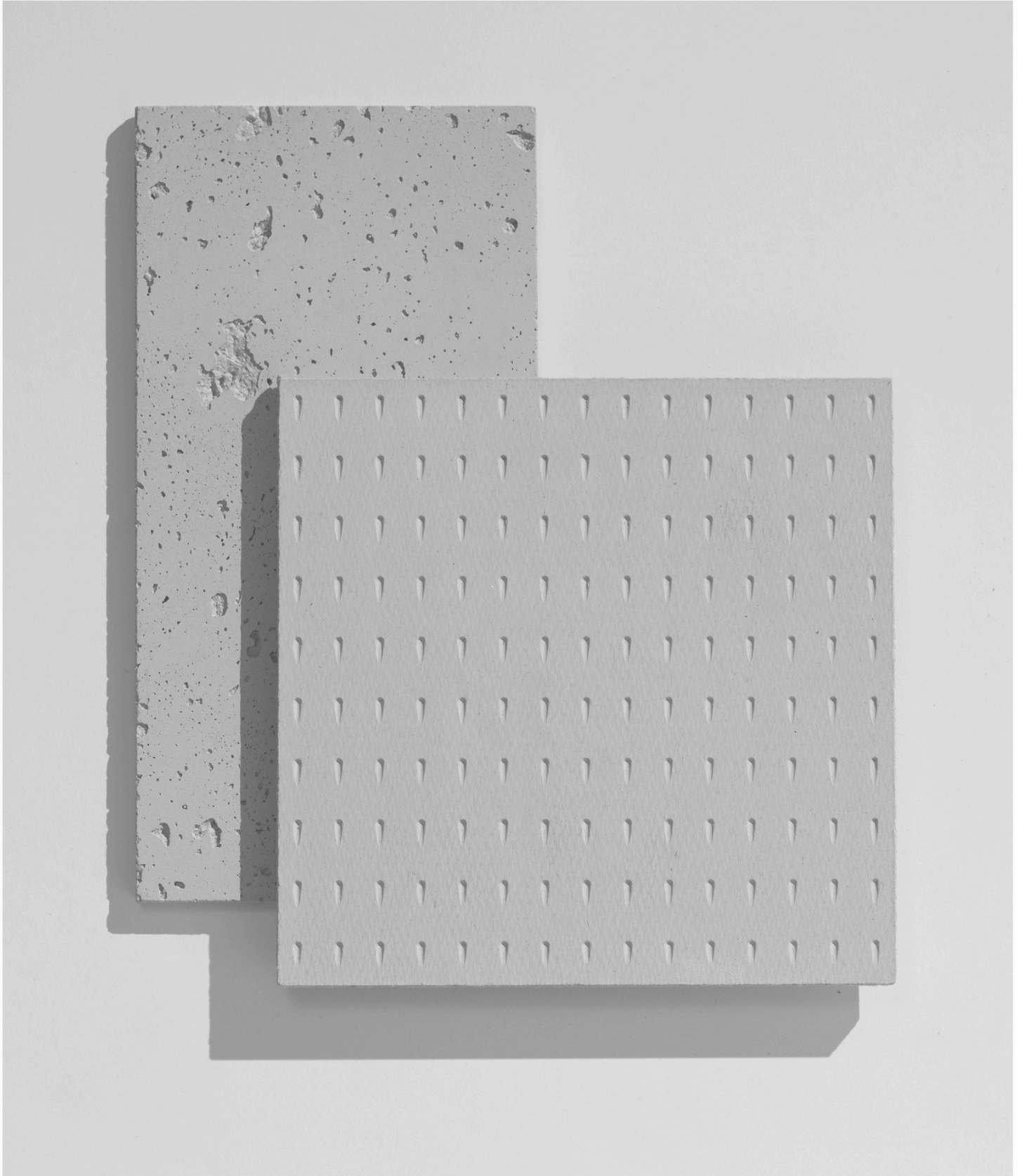
Installation Guide



ALTED®

Alted® H01 | Paper Waste Panels

Installation Guidelines



READ THIS FIRST!

— Make sure you read the entire set of guidelines prior to handling, using, installing, or processing any product from Alted Materials.

— These instructions are intended to be a guide. It is the installer's obligation to recognize and compensate for field conditions. Best practices for building and craftsmanship should be followed by the installer. Alted Materials is not responsible for installation safety, direct or indirect damages, or contractor selection.

— Check materials thoroughly upon delivery and report any defects or quality rejects to Alted Materials immediately. Alted Materials accepts no responsibility for previously installed products that do not match the required quality standards.

PRODUCT DESCRIPTION

Alted® H01, the Paper Waste Panels, is a collection of decorative wall panels designed for interior use. The panels are versatile, easy to install and maintain, and aim to improve the sustainability profile of the built environment in which they are installed. Alted® H01 panels are waste-based, plant-based, non-toxic, 100% recyclable back into the substrate production loop (once a take-back program is implemented), and have a low embodied carbon footprint. These environmental characteristics are largely achieved through the combination of their two primary components: HONEXT® board and Iridea Bio protective coating. HONEXT® board is made from cellulose waste from the paper industry, while Iridea Bio coating is composed of up to 75% water and non-toxic, renewable raw materials derived from waste vegetable matter unfit for human consumption. Currently, the Alted® H01 collection comprises three patterns debossed on the surface, creating different shadow effects. The unique pressing technology enables pattern customization for large orders. Colours can also be customized by providing a RAL or NCS code.

FACT: 100 m² of Alted® H01 panels save 722kg of waste from ending up in landfills.

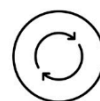
PRODUCT PROFILE



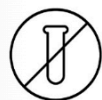
Waste-based
98% of recycled content



Plant-based
80% of the raw material



Recyclable
100% in the same loop



Non-toxic
A+ air quality, no added
VOCs



Reduced CO₂ E
Low embodied carbon
profile



Local production
Sourcing and manufacturing
within a 50km radius



Aesthetical variations
3 patterns, 5 colours and
customization options



Easy to install
Standard format and
installing systems



Easy to clean and to
maintain, using a moist
or dry cloth

CHARACTERISTICS

Main raw material	Paper industry waste and post-consumer cardboard
Coating	Bio-resins extracted from plant-based waste
Area of use	Interior walls and ceilings
Installation	French cleat, z-clip, glue, screws
Size	600x600 mm ±1mm
Thickness	8 mm +1mm/-0mm
Density	790 ± 10 kg/m ³
Weight	2,3 kg/panel
Fire Reaction	Euroclass C-s1,d0 and B-s1,d0 ASTM E84 Class A
VOCs	A+ air quality (Grenelle Law)
Acoustic Absorption	0,15 α _w
Hardness	Shore A: 6 ± 1
Resilience (Rebound)	14,7 ± 2,3%
Flexural Strength	6,3 ± 0,9 MPa

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GENERAL INSTRUCTIONS

PANEL'S NATURE

Cellulose is a natural material that can absorb or release moisture depending on the surrounding environment. The panels may warp or twist, especially if there are significant moisture or humidity differences between the installation environment and the panels' original storage conditions. Do not expose Alted® H01 panels to non-aerated environments. Never install Alted® H01 panels on walls exposed to excessive humidity. Alted® H01 panels should not be installed in high-moisture areas. We recommend their use only in indoor living environments, avoiding high-traffic areas; if installed in kitchens, avoid areas exposed to liquids. They should not be installed in bathrooms.

FLEXIBILITY

Alted® H01 panels have a certain level of flexibility while maintaining their shape and rigidity when properly installed and secured to the wall. If the wall surface has significant irregularities or unevenness and a completely flat wall is desired, it may be necessary to smooth out the wall or use battens to create a more even surface and facilitate a better fit for the panels. During installation, straighten the panels as much as possible by applying pressure and securing them firmly to the wall. It's important to note that while the panels may have some inherent flexibility, excessive force or bending can cause damage. It's always best to handle the panels with care and avoid applying excessive stress that could compromise their structural integrity.

UNPACKING AND HANDLING

Please handle Alted® H01 panels with care during unpacking and installation. The panels are delicate; don't drag them, use careful lifting and moving techniques to avoid chipping or damaging the edges. Be sure to inspect the materials upon delivery, note any damages, and notify Alted Materials immediately. Do not install materials of unacceptable quality. Materials waiting to be installed should be stored in their original packaging in a clean, climate-controlled environment free of moisture. Let the products always stay stacked horizontally; never store them vertically or against a wall. Inappropriate storage and a lack of acclimatization could alter panel dimensions and weight.

WALL AND CEILING SURFACE CONDITIONS

Make sure that the surface where you will install the panels is clean and free from dust. If the surface is uneven, it must be leveled out before installation; this is particularly important when you install directly on the wall. Pay attention to painted surfaces where there is a risk of the paint coming off. Never install on a recently painted surface; the paint needs to dry properly. The responsibility for evaluating and recognizing potential issues with the paint or surface in general and compensating for different field conditions is with the installer.

CUTTING, REPAIRS, AND PAINTING

It is possible to cut Alted® H01 panels with a circular saw, tiger saw, or similar. Use discs with 96+ teeth and 5000 rpm for best results. The colors do not run through the material, so if you cut the panels, the edges will be exposed, unprotected from humidity, and showing the natural color of the raw material. We recommend planning carefully where the cut edges will be placed within the wall design. Both exposed edges and minor damages to the product during installation can be repainted with touch-up paint that Alted Materials can provide. Panels with larger damages need to be replaced.

CLEANING & MAINTENANCE

Keep liquids away from the panels. In the event of a spill or minor stain on the panels, use a moist or dry cloth to wipe away the filth as soon as possible. Allow the product to dry in the open air until no moisture is apparent. Do not rub the panels. Do not use wet mops, wet scrubbers, or steam cleaners. We do not recommend using any liquids or very wet utensils to clean the products, nor do we recommend using solvents on the products. No wax, polish, oil soap, abrasive cleaners, steel wool, scouring powder, or significant amounts of water should be used. Do not scratch, punch, or rub the surface to ensure long-lasting durability.

END OF THE PRODUCT'S LIFE

We encourage the reuse of Alted® H01 panels that have been disassembled during renovation or demolition. Refurbishment or repairs may be necessary, and Alted Materials can provide the required coating products. Once the take-back program is in place, Alted® H01 panels can be 100% recycled back into the substrate production loop, rather than downcycled, ensuring the material can be used again instead of becoming waste. Please contact Alted Materials for information about recycling options prior to dismantling. In most places, Alted® H01 panels can be recycled as paper through municipal recycling streams.

INSTALLATION SYSTEMS AND TOOLS

Please keep in mind that these are simply guidelines. Alted® currently does not include installation systems with the panels. On the following pages, we recommend products that Alted Materials has evaluated and can recommend. Alted® is committed to promoting circularity and will always suggest the most suitable solution based on the architectural project's context. We encourage you to reach out to the Alted Materials team to discuss which system best fits your needs.

READ BEFORE INSTALLING!

- Whenever possible, secure panels along all sides. If using glue or mechanical fixings, ensure fixing points every 100mm around the sides, leaving a 10mm space from the edge. Corners should always be fixed. If not fixing all edges, secure the horizontal edges.
- Leave a minimum gap of 1 mm between panels to accommodate dimensional movements.
- Always leave a gap between the installed panels and the floor or use skirting solutions to prevent damage during floor cleaning.
- Use only the systems Alted® or a licensed installation company recommends. In any case, the installer is responsible of identifying field conditions and making the required adjustments for optimal results.

GLUE FIXING SYSTEM

EVALUATION

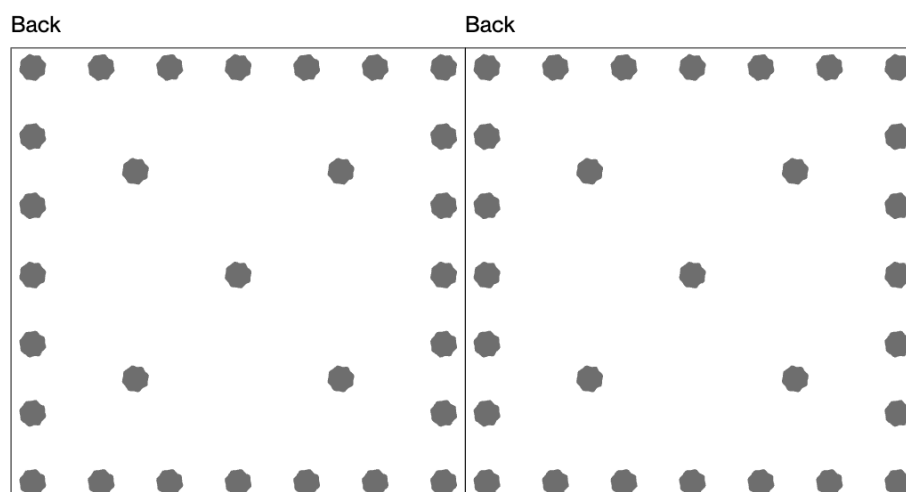
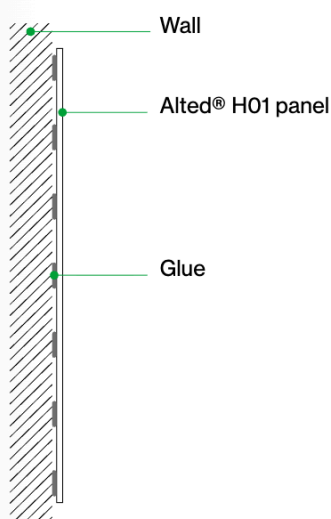
This is the most permanent method, as well as the quickest to install and most cost-effective, but it does not allow for the reuse of the panels after disassembly because they would be damaged when taken from the wall or surface. We recommend this option only if recycling is the next step in the product's life cycle.

RECOMMENDATION

Because of its low VOC environmental conditions, Alted Materials recommends Pattex No More Nails glue. Other high-tack glues might be used as well, such as Casco Superfix or Loctite Powergrab.

- 1 — Before you start, read and follow the General Instructions.
- 2 — Mount a horizontal beam below the bottom row as a foundation or mark the bottom line.
- 3 — Put glue on the first piece and push it firmly towards the surface. You will be allowed to move the piece slightly on the surface to secure an exact position.
- 4 — Install upwards and remove the bottom line once finished.

GRAPHIC REPRESENTATION



FRENCH CLEAT OR Z-CLIP SYSTEM

EVALUATION

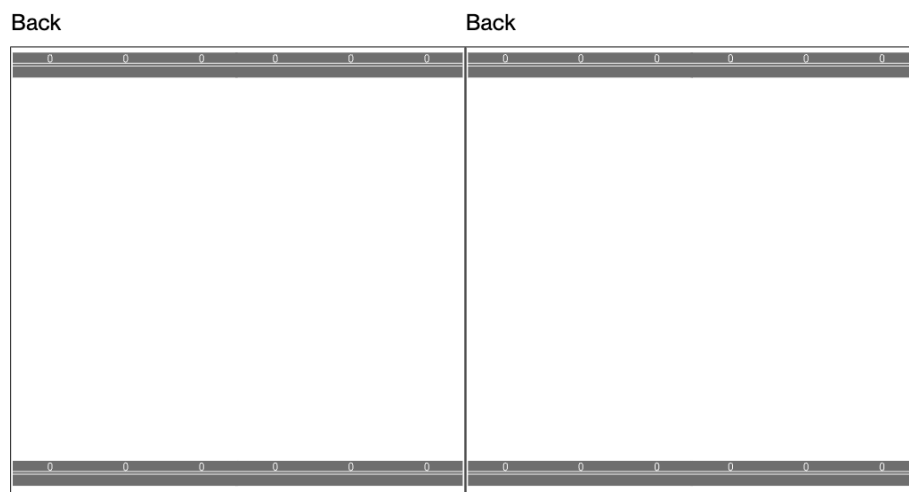
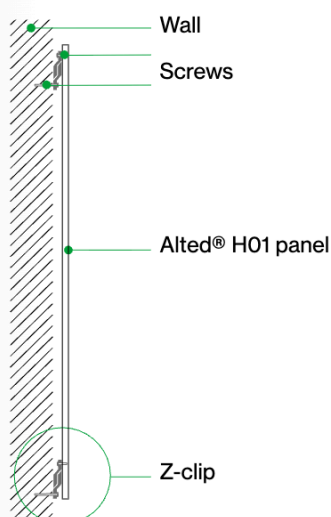
Alted Materials recommends the Z-clip system as the preferred installation option for Alted® H01 panels. This system offers mounting and dismounting without causing significant damage to either the walls or the panels. The rigid clip strips ensure precise alignment of the panels. When the panels need to be temporarily removed or replaced, they can be easily unhung from the Z-clips. When detached and reattached to the clip strip, a new screw hole will be required to ensure a secure attachment.

RECOMMENDATION

The Z-Clip system is an aluminum version of the “French cleat” system, which typically uses wooden battens to create a hanging grid. Any clipping system based on this principle is a very good option for installing Alted® H01 panels.

- 1 — Before you start, read and follow the General Instructions.
- 2 — Mark the desired positions for the Z-clips on both the wall and the back of the panels. Follow the manufacturer’s recommendations for proper spacing and placement.
- 3 — Attach the Z-clips to the marked positions on the wall and panels using appropriate screws.
- 4 — Slide the panels downward onto the Z-clips, ensuring a snug fit.

GRAPHIC REPRESENTATION



BASE AND CORNER FINISHING SOLUTIONS

SKIRTING BOARDS

When installing the panels, it's crucial to always leave a gap between the panels and the floor. This gap allows for natural expansion and contraction due to temperature and humidity changes, helping to prevent warping or damage. Additionally, it protects the panels from moisture during floor cleaning or spills. You can consider using skirting solutions. Skirting boards not only cover the gap but also provide a finished look while acting as a barrier against scuffs and scratches.

MITER CUT

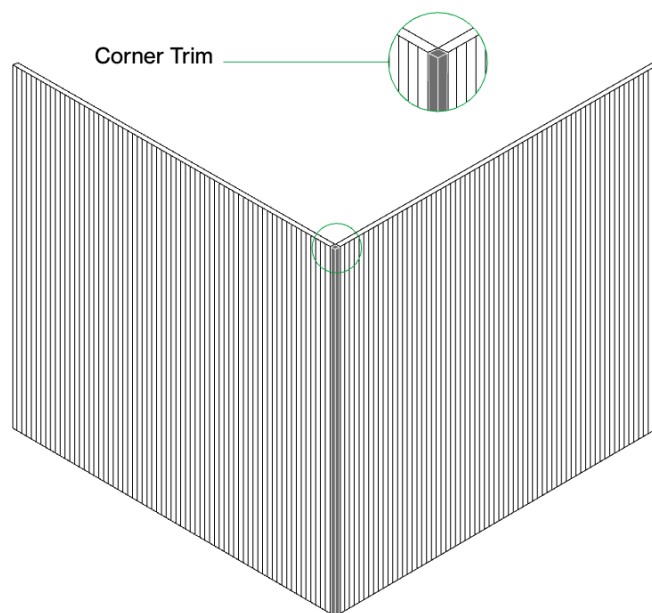
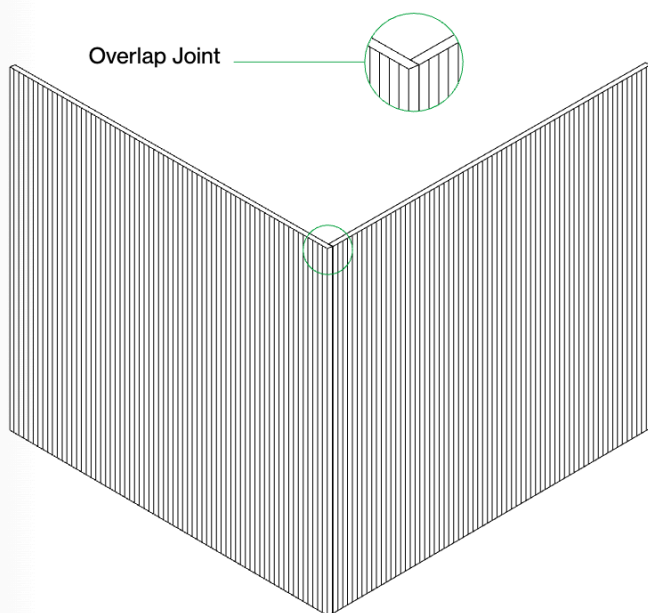
To finish corners with Alted® H01 panels, the edges can be cut at a 45° angle using a circular saw or a 3D router. However, the cut edges of the panels will not be clean, so they will need to be sanded. White glue can be used to ensure that the joints stay securely bonded and do not separate. If the color of the panel's inner material becomes visible after cutting, it can be touched up with the touch-up paint that Alted Materials provides. This method of joining the panels is labor-intensive, which is why we recommend the following two options: overlap joint or corner trims.

OVERLAP JOINT

To finish corners with Alted® H01 panels, they can simply be overlapped, leaving one edge visible. This method is faster and eliminates the need for specialized tools, such as a circular saw or 3D router. White glue can be applied to the joint area to ensure the panels remain securely bonded and do not separate. This approach is less labor-intensive and simplifies the installation process.

CORNER TRIMS

Alted Materials recommends using standard wooden corner trims to finish the edges clad with Alted® H01 panels. These trims can be painted with the same coating as the panels, utilizing the touch-up paint that Alted Materials provides. Additionally, you have the option to choose the desired shape of the corner trims, whether square, flat, or rounded, allowing for a customized and polished look that complements your design.



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