



TECHNICAL GUIDANCE

MgO Board Installation & Handling Guide

General guidance for SulfyCor magnesium oxysulfate boards used in wall, subfloor, panel and project-built assemblies.

Use this guide with the project specification

Board installation is assembly-specific. Confirm the SulfyCor board type, thickness, framing or substrate, fastener system, movement allowance, joint treatment, finish and required performance before work begins. Project drawings, local codes and approved tested assembly details take priority over this general guide.

Confirm	Project information
Board	Non-woven, sanded or decorative MgO board
Application	Wall sheathing, subfloor/underlayment, SIP, modular wall, interior finish or ductwork
Structure	Wood frame, steel frame, joists, continuous substrate or factory-built panel
Project inputs	Thickness, dimensions, fasteners, joints, finish, performance requirements and destination

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01 | BEFORE INSTALLATION

Select the board and confirm the assembly

The generic term 'MgO board' does not define an installation system. Surface finish, board thickness and end use change how the board is supported, fastened, jointed and finished.

Board family	Typical role	Confirm before installation
Non-woven finish MgO board	Wall sheathing, SIP facing, modular wall structure and selected ductwork assemblies	Frame layout, thickness, edge support, fastener schedule, membrane/cladding and required wall or duct performance
Sanded magnesium oxide board	Subfloor, underlayment and specified structural floor systems	Joist or substrate layout, loading, span, thickness, edge support, floor finish and moisture management
Decorative MgO wall board	Melamine- or HPL-faced interior and modular-house walls	Panel dimensions, fixing method, trims, joints, exposed edges and cleaning/maintenance requirements

Project information to obtain

- Approved drawings and intended board location
- Board type, thickness, dimensions and edge detail
- Framing or substrate material and spacing
- Required fire, structural, moisture or finish performance

Materials to approve

- Compatible fasteners for frame and exposure conditions
- Adhesive, joint compound, tape and sealant where required
- Primer, coating, membrane, cladding or floor finish
- Flashing, trims, control joints and penetration details

Important performance boundary

A board test result does not automatically qualify every thickness, finish or completed assembly. Fire, structural, moisture and durability performance must be matched to the tested sample or approved construction detail.

02 | STORAGE, HANDLING AND SAFETY

Protect the boards before they reach the frame

Storage and handling • Store boards flat, dry, under cover and clear of the ground. • Use level, continuous supports so the stack cannot bow or twist. • Protect faces, edges and corners from impact and point loading. • Carry large boards on edge with enough people or suitable lifting equipment. • Keep incompatible wet trades and standing water away from stored boards.	Site conditions • Keep the work area dry, ventilated and suitable for the specified finish. • Allow boards to reach the project-specified installation conditions before fixing. • Do not install visibly wet, damaged, bowed or contaminated boards. • Confirm substrate moisture, framing alignment and weather protection before work starts. • Record damaged boards and isolate them for technical review.
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TOOLS AND PPE

Use dust-controlled cutting and suitable equipment

Task	Typical equipment	Control
Measure and mark	Tape, square, straightedge and pencil	Check dimensions twice and identify supported edges before cutting
Straight cuts	Scoring knife for suitable board/thickness, or carbide-blade power saw	Support the board and use the method approved for the selected product
Openings and irregular cuts	Drill, hole saw or carbide-equipped rotary tool	Avoid impact at corners and support the cut area
Fastening	Depth-controlled screw gun or drill/driver	Set heads flush; do not overdrive or damage the board face
Dust control	Local extraction, HEPA vacuum or wet suppression where appropriate	Do not dry sweep cutting or sanding dust

Personal protection

Wear safety glasses, gloves and suitable respiratory protection during cutting, routing or sanding. Follow the project safety plan, tool instructions and the applicable safety data sheet. Control dust at source and clean with a HEPA vacuum or approved wet method.

03 | CUTTING AND LAYOUT

Prepare clean cuts and a stress-free board layout

- Inspect the board and confirm the intended face, edge condition and direction before marking.
- Support the board close to the cut. Use a straightedge and avoid flexing the off-cut against the finished edge.
- Use score-and-snap only where the selected board and thickness permit it. Use a carbide-blade saw with dust extraction for thicker or precision cuts.
- For openings, avoid sharp unsupported internal corners. Prepare the opening with tools suitable for cementitious boards and protect cut edges as specified.
- Dry-fit boards before fastening. Never force a board into a frame or substrate that is out of square.

FRAMING AND SUBSTRATE

Make the supporting construction ready first

Framed walls and ceilings

- Confirm studs, tracks and noggings are straight, plumb and securely fixed.
- Support board edges and penetrations where required by the approved assembly.
- Plan joints around openings and avoid small unsupported board strips.
- Coordinate membranes, flashings, cladding, services and control joints.

Floors and continuous substrates

- Confirm joist spacing, substrate flatness, loading and board thickness.
- Ensure bearing and edge support comply with the floor design.
- Plan sheet orientation and joints before fastening or bonding.
- Confirm the finished flooring system and moisture requirements.

Do not treat one spacing value as universal

Fastener spacing, distance from edges and corners, perimeter gaps and board-to-board gaps depend on board thickness, frame or substrate, application, exposure and required assembly performance. Use the approved project schedule or request a Sulfycor installation review.

04 | FASTENING

Match the fastener to the board, frame and exposure

Check	General guidance	Project confirmation
Fastener material	Use fasteners compatible with magnesium oxysulfate board, the supporting frame and the exposure environment.	Coating or stainless grade, corrosion category and approved supplier
Fastener type	Wood and light-gauge steel require different thread and point designs.	Head profile, thread, point, shank diameter and length
Fastener layout	Use a consistent sequence that holds the board flat without introducing stress.	Field/perimeter spacing and distance from edges and corners
Fastener depth	Set the head flush and secure. Do not overdrive, crush the face or leave the head proud.	Whether countersinking is permitted by the selected detail
Board support	Keep joints and board ends supported where required by the assembly.	Framing centers, blocking and joint orientation

05 | GAPS, JOINTS AND FINISHING

Treat movement, weather and finish as part of the assembly

- Provide board-to-board, perimeter and control-joint movement allowances exactly as shown in the approved project detail.
- Use joint compound, flexible filler, tape, sealant or open joints only where they are compatible with the board, finish and expected movement.
- Do not bridge structural movement joints with rigid board, tape or finish.
- Exterior weather protection, wet-area waterproofing and floor finishes are separate systems. Follow the membrane, coating, adhesive and finish manufacturer's instructions.
- Prepare a representative mock-up when the final appearance, joint visibility or coating compatibility is important.

Joint cracking is usually an assembly issue

Check frame movement, unsupported edges, fastener placement, board moisture condition, joint width, filler flexibility, tape compatibility and curing conditions before treating a crack as a board-only problem.

06 | APPLICATION NOTES

Confirm the complete construction, not the board alone

Application	Installation priorities
Wall sheathing	Confirm wall frame, board thickness, fasteners, supported edges, membranes, flashings, penetrations, cladding and required fire/structural/weather performance.
Subfloor or underlayment	Confirm joist/substrate layout, loading, span, board thickness, fastening/bonding, joints, flatness, moisture control and the finished floor system.
SIP and modular walls	Follow approved factory drawings for facing, core, adhesive, pressing, panel joints, connections, openings and transport/erection protection.
Decorative wall board	Protect the Melamine or HPL face, confirm fixing method, trims, joints, exposed-edge treatment, cleaning products and visual sample approval.
Fire-rated ductwork	Use only the specified tested or engineered duct assembly. Board fire classification alone does not establish duct-system fire resistance.

COMMON INSTALLATION PROBLEMS

Identify the cause before repair

Observation	Check first
Cracked edge or corner	Fastener position, overdriving, impact damage, unsupported edge and forced board alignment
Visible or telegraphing joint	Substrate flatness, joint material, curing, sanding and compatibility with the final finish
Recurring joint crack	Frame movement, control joints, gap detail, unsupported joints and rigid filler
Fastener staining or corrosion	Fastener material/coating, exposure, moisture path and compatibility with frame and finish
Board bowing or distortion	Storage supports, moisture exposure, forced fixing and uneven framing/substrate

07 | FINAL INSPECTION

Check the installation before covering or finishing

Installation checklist • Correct board type, thickness and face installed • Board edges, ends and openings supported as specified • Fastener type, spacing and depth match the approved schedule • Required board, perimeter and movement gaps maintained • Damaged, wet or contaminated boards replaced or reviewed • Joints, membranes, flashings and penetrations completed	Record for handover • Product identification and batch information where required • Approved drawings, assembly detail and revision • Fastener, adhesive, joint and finish product references • Site-condition and moisture records where applicable • Inspection photographs before concealed work is covered • Approved deviations and technical responses
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REQUEST A PROJECT-SPECIFIC REVIEW

Send the information needed to confirm the next step

For product matching and installation review, send the application, drawings or assembly description, board type and thickness, framing or substrate, fastener/joint requirements, quantity and destination.

MOQ	1 x 20GP container
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This document provides general installation and handling guidance. It is not a structural design, fire-system design, waterproofing specification or substitute for local code requirements and approved project documentation.